Jefferson College of Health Sciences

at Carilion Clinic

Catalog 2014-2015

Fall 2014 Edition

BE Next

Greetings!

On behalf of the Jefferson College of Health Sciences community, I would like to welcome you to our campus for the 2014-15 academic year.

Simply put, you know that you want a career in healthcare, and that you have many options to prepare for that career. Your choice to attend Jefferson College ensures you will receive a unique, specialized, hands-on experience that you won't find anywhere else. You don't come to Jefferson to get a degree in everything. But, you leave here ready for everything your career will demand.

I am confident that this year at Jefferson, you will:

BE Inspired

Our exclusive affiliation with Carilion Clinic, one of the most innovative health systems in the Virginia, gives you the opportunity to experience some of the most outstanding clinical learning environments in the country. And you get that experience right here in the heart of Roanoke in the beautiful Blue Ridge Mountains of Virginia.

BE Challenged

The health challenges that face our communities can't be solved with yesterday's solutions. Or even today's. It takes people driven by what's next—like **YOU**. At Jefferson College, we prepare you for a career that is vibrant and growing. You're gaining expertise on innovative tools and technologies, and a jump on tomorrow's opportunities.

BE Prepared

At Jefferson, you'll gain the experience you need from faculty with real world experience in a variety of healthcare professions. Plus, you'll have the opportunity to learn with some of the most talented people in healthcare today through our Interprofessional Education initiative. This concept allows you to interact with other students and healthcare professionals, which will prepare you to effectively function as part of an interprofessional team in clinical environments.

BE Next

At the intersection of education and healthcare, you'll gain confidence and competence right from the start. With rigorous real-world learning and responsive academic support, you'll be fully equipped to not only excel in healthcare, but to move your profession forward.

You'll be inspired. You'll be challenged. You'll be prepared. You'll be next!

We have prepared this Academic Catalog to help you navigate your way through your education at Jefferson. This publication includes information on academic programs, policies, procedures, departments, calendars and much more. It is intended to provide you with as much information as possible in a convenient, one-stop location. I would also advise you to consult with our very capable faculty and staff often if you have questions that are not answered in this Catalog.

Sincerely,

Dr. Nathaniel L. Bishop
President
Jefferson College of Health Sciences

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General Information

Jefferson College of Health Sciences is a professional health sciences college, offering the Master of Healthcare Administration, Master of Science in Nursing, Physician Assistant and Occupational Therapy, and a variety of baccalaureate and associate degree healthcare programs.

With excellent licensure pass rates in our professional programs, and with high student satisfaction ratings, we are proud to be one of the few private healthcare colleges in the southeastern United States.

We enroll approximately 1,100 students annually from across the United States, including approximately 225 graduate students. Our faculty body consists of approximately 80 full-time faculty which provides students better access to their professors. Although the student-to-faculty ratio varies by program and by classroom/clinical setting, the overall ratio is 12 students to one faculty member.

We offer excellent clinical opportunities, extensive online learning offerings, and continuing education and volunteer opportunities near campus and abroad.

Approximately 95 percent of our students receive financial aid. Academic merit scholarships and grants are also available, ranging in value from $1,000 to $8,000 renewable awards, and in length from first year only to renewable for four years. Scholarships, loans, grants and the Federal Work-Study Program can be applied for through the Free Application for Federal Student Aid (FAFSA). We participate in the Carilion Clinic Tuition Advancement Program for our undergraduate and graduate critical need programs, as designated by Carilion Clinic. Students must be an employee of Carilion Clinic to apply for this benefit.

Jefferson College of Health Sciences Historical Timeline

- **1907:** **Jefferson Hospital** is founded by **Dr. Hugh Trout, Sr.**, an early pioneer of healthcare in the Roanoke Valley, at what is now 1311 Franklin Road in Roanoke. The 40-bed facility is named in honor of Thomas Jefferson.

- **1911:** To avoid a shortage of trained nurses, **Dr. James Newton Lewis** and **Dr. Sparrell Simmons Gale** found the **Lewis-Gale School of Nursing** in downtown Roanoke. In 1914, Dr. Trout creates the **Jefferson Hospital School of Nursing**. The two schools operate independently for many years. Between 1914 and 1965, Jefferson Hospital School of Nursing alone trained 658 new nurses, most of whom stayed within the community upon graduation.

- **1953:** At age 26, **Mr. William Reid** becomes administrator for Jefferson Hospital.

- **1965:** Construction begins on a new hospital, **Community Hospital**, situated on the corner of Jefferson and Elm Streets. The hospital opens in 1967 under the leadership of Mr. William Reid. In conjunction with the opening of the new hospital, the Jefferson Hospital School of Nursing and the Lewis-Gale School of Nursing decide to combine their educational resources. The new nursing school is named the **Community Hospital of the Roanoke Valley School of Nursing** and the first class graduates in 1968.

- **1982:** The School is certified by the State Council of Higher Education for Virginia (SCHEV) as the **Community Hospital of Roanoke Valley College of Health Sciences**, making it the first hospital-based college in Virginia to offer Associate Degrees. The first programs offered are in Nursing and Respiratory Therapy and the first class graduates in 1985. Subsequently, the new College achieves regional accreditation from the Southern Associations of Colleges and Schools in 1986.

- **1989:** Community Hospital of the Roanoke Valley is acquired by Roanoke Memorial Hospital leading to the formation of **Carilion Health System** in the early 1990s. Also in1989, the College names its first president, **Dr. Harry C. Nickens.** Dr. Nickens was a leader in the Roanoke community for over 20 years and served as president until 2001.

- **1992:** **Mr. William Reid** announces his retirement from Community Hospital and the Carlton Terrace Building, home to the Community Hospital of Roanoke Valley College of Health Sciences, is renamed the **Reid Center** in his honor. Mr. Reid, former Chair of the College Board of Directors, continues to serve on the Board today.

- **1995:** The College continues to expand its programs and is accredited by the Southern Association of Colleges and Schools to begin offering baccalaureate degrees.

- **2002:** College welcomes its second president, Dr. Carol Seavor. Dr. Seavor, who retired in 2010, led the College through a period of unprecedented growth in both curriculum and enrollment.

- **2003:** Community Hospital of the Roanoke Valley College of Health Sciences changes its name to **Jefferson College of Health Sciences** in honor of its founding as the Jefferson Hospital School of Nursing.

- **2005:** Jefferson College of Health Sciences is granted membership at Level III by the Southern Association of College and Schools Commission on Colleges, which allows the College to offer master's degrees. The first master's degree is offered in Nursing, with the inaugural class graduating in 2007. In 2008, Jefferson begins offering master's programs in Occupational Therapy and Physician Assistant.

- **2006:** Carilion Health System is transformed into **Carilion Clinic**. By 2007, its two Roanoke hospitals are consolidated into the greatly expanded Carilion Roanoke Memorial site and plans to renovate Carilion Roanoke Community Hospital into academic space for the College are formed.

- **2010:** Dr. Carol Seavor retires. Among her accomplishments were nearly doubling the student body and expanding academic programs to 13 in less than a decade. **Dr. Nathaniel L. Bishop** is named Interim President. Dr. Bishop previously served as the Vice President of Facility and Guest Services at Carilion Medical Center. One of his first achievements is to successfully complete the move of the College from the Reid Center into newly renovated space in Carilion Roanoke Community Hospital.

- **2011: Dr. Bishop** is formally inaugurated as the third President of Jefferson.

- **2011-2012:** Jefferson embarks on a series of partnerships with fellow higher education institutions, including program of Interprofessional Education with the Virginia Tech Carilion School of Medicine and Research Institute, shared spaces on campus with the Radford University Doctorate of Physical Therapy Program and articulation agreements with schools like Virginia Western Community College.

- **2012:** Jefferson reaches new highs in student enrollment, welcoming approximately 1,100 students to campus in on the graduate, baccalaureate and associate levels, while continuing to explore expansion of degree programs and opportunities.

- **2012-2013:** Jefferson adds its 15th and 16th degree programs—a Bachelor of Science in Health Sciences and the Master of Health Administration.

Mission and Vision

The mission and vision of Jefferson College of Health Sciences provide the foundation for the academic endeavors of the institution. These statements reflect the College's commitment to the learning process and the expanding global climate of healthcare and education.

Mission

Jefferson College of Health Sciences prepares, within a scholarly environment, ethical, knowledgeable, competent, and caring healthcare professionals.

We believe that excellence in education encompasses and promotes

- Interdisciplinary and Interprofessional learning;
- Diversity of person and thought;
- Personal and professional integrity;
- Commitment to life-long learning;
- Advancement of knowledge through scholarship;
- Holistic development of the individual;
- Participation in the local and global community.

Vision

Jefferson College of Health Sciences will be nationally recognized as an institution of choice for education in the healthcare professions.

Degree Programs

Jefferson College of Health Sciences offers the following degree programs:

Graduate Programs
Master of Healthcare Administration
Master of Science in Nursing
Master of Science in Occupational Therapy
Master of Science in Physician Assistant

Graduate Certificate
Biology
Healthcare Administration
Healthcare Informatics

Baccalaureate Programs
Bachelor of Science in Biomedical Sciences
Bachelor of Science in Emergency Services
Bachelor of Science in Health and Exercise Science
Bachelor of Science in Health Sciences
Bachelor of Science in Healthcare Management
Bachelor of Science in Health Psychology
Bachelor of Science in Medical Laboratory Science
Bachelor of Science in Nursing
Bachelor of Science in Respiratory Therapy

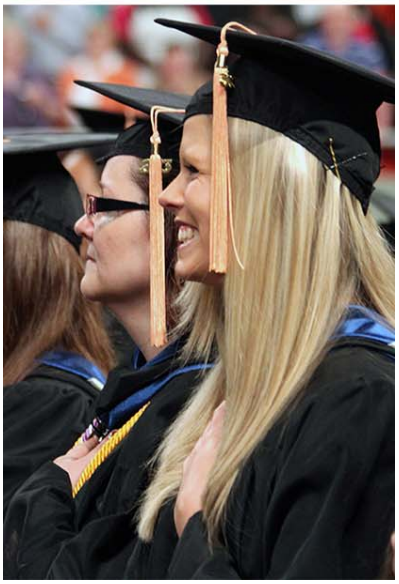
Associate Programs
Associate of Applied Science in Occupational Therapy Assistant
Associate of Applied Science in Physical Therapist Assistant
Associate of Applied Science in Respiratory Therapy
Associate of Applied Science in Surgical Technology

Undergraduate Minors (Program area)
Biology (BioMed)
Exercise Science (HES)
Forensic Science (HS)
Healthcare Humanities (HUM)
Healthcare Organization Management (HCM)
Health Promotion (HES)
Health Sciences (HS)
Psychology (Hlth Psy)
Public Health (HS)

Undergraduate Certificate
Medical Laboratory Science







General Educational Competencies and Core Curriculum

The Jefferson College of Health Sciences Core Curriculum is designed to ensure that each degree offered includes a general education component designed to provide a breadth of knowledge from humanities and fine arts, social and behavioral sciences, and natural sciences and mathematics. In combination with the courses specific to the student's program of study, the Jefferson Core Curriculum prepares graduates to meet the following general education competencies:

- Demonstrate proficiency in the application of mathematical reasoning for problem solving,
- Use critical thinking that reflects appropriate evidence, ideas, and models for use in decision making, and
- Communicate effectively in writing, speaking, and through use of appropriate technology.

Associate Degree Core Curriculum

Students must complete each of the requirements described below.

- GEN 100: Academic Seminar (1 credit)
  Students who have completed 30 semester college credits or an earned degree from a regionally accredited institution of higher learning may be exempt from GEN 100.

- BUS 111: Introduction to Computers (1 credit)

- Grammar and Composition (minimum 3 credits)

- Natural Sciences/ Mathematics (minimum 6 credits)
  CHM 100 does not meet minimum requirement

- Humanities/ Fine Arts (minimum 3 credits)
  Recommended: PHL 115: Foundation of Ethics

- Social/Behavioral Sciences (minimum 3 credits)

Baccalaureate Degree Core Curriculum

Students must complete coursework from each of the categories described below for a minimum of 30 credits

- Preparation for College
  GEN 101: Freshman Seminar (3 credits)

Students who have completed 30 semester college credits or an earned degree from a regionally accredited institution of higher learning may be exempt from GEN 101.

- Grammar and Composition (minimum 6 credits)

- Interprofessional Collaboration (minimum 3 credits)
  IPE 200: Fundamentals of Teamwork (1 credit)
  IPE 300: Interprofessional Healthcare Discovery and Collaboration (1 credit)
  IPE 400: Interprofessional Healthcare Experiences (1 credit)
  IPE 401: Foundations of Interprofessional Leaders I (2 credits)
  IPE 402: Foundations of Interprofessional Leaders II (2 credits)

- Humanities/ Fine Arts (minimum 3 credits)
  Recommended: PHL 115 Foundation of Ethics

- Mathematics/ Statistics (minimum 3 credits)
  MTH 100 and 130 do not meet minimum requirement

- Natural Sciences (minimum 3 credits)
  CHM 100 does not meet minimum requirement

- Social/Behavioral Sciences (minimum 3 credits)

Core Curriculum (Effective Fall 2015*)

Bachelor of Science Core Requirements*	
*Courses that focus on skills, techniques, and procedures specific to the student's major are not accepted as part of the core.	
Humanities/Fine Arts	**12 Hours**
ENG 111	3
ENG 112	3
PHL 115	3
Literature	3
Natural Sciences/Mathematics	**9 Hours**
Math	3
Natural Science	3
Math OR Natural Science	3
Social/Behavioral Sciences	**3 Hours**
Social/Behavioral Science	3
Social/Behavioral Sciences OR Humanities Electives	**6 Hours**
Social/Behavioral Science OR Humanities	6
Other	**4/5 hours**
GEN 100	1
IPE Courses	3/4
Total	**34/35**

Associate of Science Core Requirements*	
*Courses that focus on skills, techniques, and procedures specific to the student's major are not accepted as part of the core.	
Humanities/Fine Arts	**6 Hours**
PHL 115	3
ENG 111	3
Natural Science/ Mathematics	**6 Hours**
Natural Science OR Math	6
Social/Behavioral Sciences	**3 Hours**
Elective	3
Other	**2 Hours**
GEN 100	1
IPE 200	1
Total	**17 Hours**

Accreditation

Jefferson College of Health Sciences is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate, baccalaureate and master's degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia, 30033-4097 or call 404-679-4500 for questions about the accreditation of Jefferson College of Health Sciences.

Jefferson College of Health Sciences is certified by the State Council of Higher Education for Virginia (SCHEV) to operate campuses in Virginia.

In addition to institutional accreditation, the following programs maintain professional accreditation and/or approval:

- The Emergency Services program is accredited by the Commission on Accreditation of Allied Health Education Programs (*www.caahep.org*) upon the recommendation of the Committee on Accreditation for Emergency Medical Services Professions (CoAEMSP).
    - CAAHEP, 1361 Park Street, Clearwater, FL 33756, Phone: 727-210-2350, *www.caahep.org*
    - CoAEMSP, 8301 Lakeview Parkway, Suite 111-312, Rowlett, TX 75099, Phone 214-703-8445

- The Emergency Services program is also accredited by the Virginia Department of Health Office of Emergency Medical Services (VAOEMS) (1041 Technology Park Drive, Glen Allen, Va. 23059, phone 1-800-523-6019).
- The Medical Laboratory Science Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Rd., Suite 720, Rosemont, IL 60018-5119. Website: *www.naacls.org*
- The Baccalaureate and Master's Degree Nursing programs are accredited by the Commission on Collegiate Nursing Education (CCNE), One Dupont Circle, NW, Suite 530, Washington, DC, Phone: 202-887-6791.
- The Pre-licensure Baccalaureate Nursing program is approved by the Virginia Board of Nursing Virginia Board of Nursing, Perimeter Center, 9960 Maryland Drive, Suite 300, Richmond Virginia 23233-1463, Phone: 804- 367-4515, Fax: (804) 527-4455, Complaints: (800) 533-1560, E-mail: *nursebd@dhp.virginia.gov*, website: *http://www.dhp.state.va.us/nursing*.
- The Occupational Therapy and Occupational Therapy Assistant programs are accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA) located at 4720 Montgomery Lane, P.O. Box 31220, Suite 200,

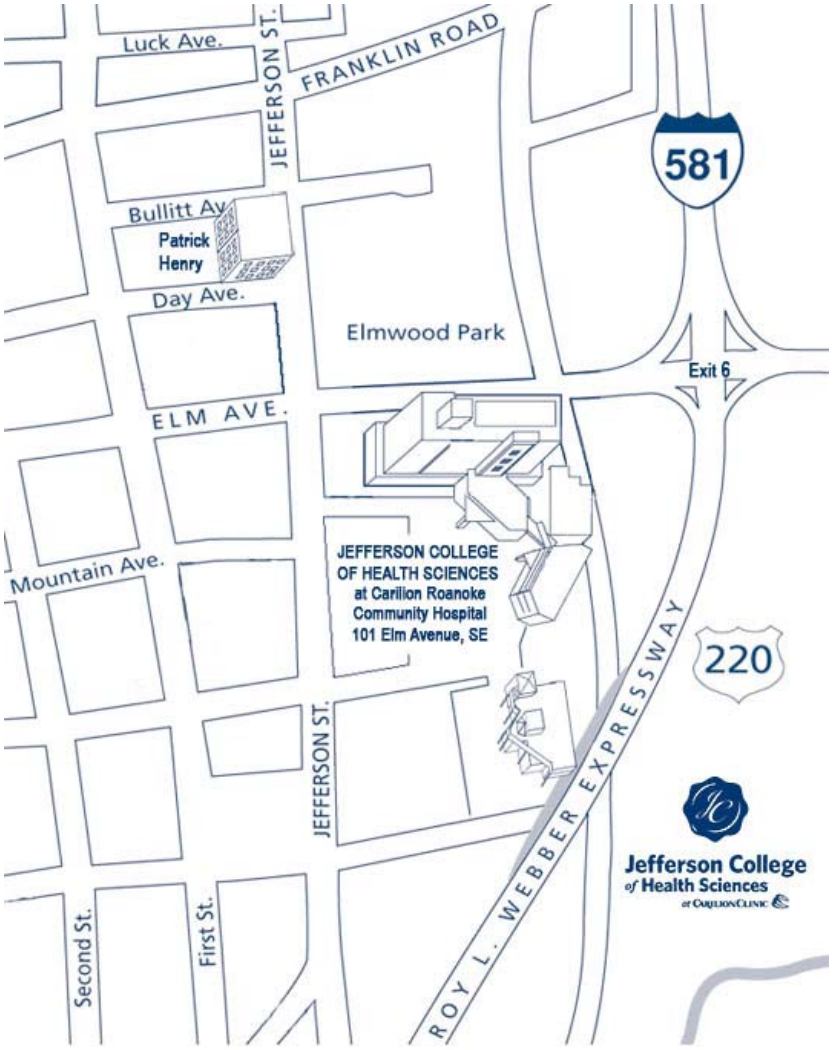
Bethesda, Maryland, 20824-1220. AOTA's phone number is (301) 652-2682. Websites: *www.aota.org* and *www.acoteonline.org*. Upon graduation from this program graduates must sit for a national registry exam administered by the National Board for Certification in Occupational Therapy (NBCOT). Their offices are located at 12 S. Summit Avenue, Suite 100, Gaithersburg, Maryland, 20877-4150. NBCOT's phone number is (301) 990-7979. Website: *www.nbcot.org*.

- The Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA), 1111 North Fairfax Street, Alexandria, VA 22314, Phone 703/684-3245, e-mail, *accreditation@apta.org*, website: *http://www.capteonline.org*.
- The Physician Assistant program is accredited by the Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA), 12000 Findley Rd. Suite 240 Duluth, GA 30097, Phone 770-476-1224.
- The Respiratory Therapy program is accredited by the Committee on Accreditation for Respiratory Care (CoARC), 1248 Harwood Road, Bedford, Texas 76021-4244, Phone 817-283-2835.
- Application has been made for accreditation of the Surgical Technology Program from the Commission on Accreditation of Allied Health Education Programs (CAAHEP) through the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA) for the first cohort of students to be board eligible to take the Certified Surgical Technologist (CST)® exam through the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

Jefferson College of Health Sciences Campus

Jefferson College of Health Sciences is located in historic and beautiful downtown Roanoke, within walking distance of numerous restaurants and one of the oldest outdoor markets in Virginia. The College is less than a mile from Carilion Roanoke Memorial Hospital, the Virginia Tech Carilion School of Medicine and Research Institute, and numerous other outstanding clinical sites.

The main College campus includes the Carilion Roanoke Community Hospital (CRCH) building, and the Patrick Henry which encompasses our residence hall. In addition, there is a parking garage and additional parking lots available in several adjacent areas.



Jefferson College of Health Sciences Campus Map

Classrooms throughout the campus are wired for Internet access. Labs for both clinical and science based courses are equipped with the latest technology to prepare students to work in today's healthcare environment. The library provides access to the latest print and electronic resources supporting healthcare education. The library area also includes a computer lab, student testing, and tutorial areas.

The Jefferson College Bookstore, located on the 4th floor of the CRCH building, offers not only the books and materials needed for classes and clinics, but also shirts, jackets and other items with the College logo.

Professional and Continuing Education

Jefferson College of Health Sciences' Professional and Continuing Education provides non-college credit bearing courses and seminars that support the mission of the College. The courses and seminars are designed to provide lifelong learning opportunities for healthcare professionals or provide entry level professional knowledge and skills necessary for individuals desiring to enter the healthcare workforce.

The College offers a variety of professional and personal development programs. These programs can be found by visiting *www.jchs.edu* and clicking on the academics section of the website. A list of available courses along with descriptions and application processes can be found under the Professional and Continuing Education section.

The College is approved to offer Continuing Education Units (CEUs) for courses that meet the required criteria. Additionally, programmatic recognition and or accreditation is maintained for all courses that require either approval or accreditation status.

Undergraduate Programs at Jefferson

Undergraduate Admissions

Jefferson College of Health Sciences provides superior interprofessional healthcare education which enables our graduates to meet the demands of their chosen healthcare profession. We look for students who have a *mind* for science and a *heart* for people. We accept students who thrive on the challenge of a rigorous academic environment and the thrill of caring for people. Our students bring diverse talents to the Jefferson College community through their academic and professional experience, volunteer service, and extracurricular activities. We welcome international students, students from all over the United States, and students from right here in the Roanoke Valley. Members of our campus community share a common bond: they care about people. We invite you to schedule a campus tour to meet us personally by e-mailing the Office of Admissions (*admissions@jchs.edu*). We are happy to put you in touch with students, faculty, and program directors.

When you decide to become a Jefferson College student, your first step will be to apply, and you may be interested to see if you qualify for our merit-based scholarships and grants. These are based upon your transfer grade-point average (GPA) or your high school GPA and your Scholastic Aptitude Test (SAT) or ACT scores. Use the scholarship calculator on the college website to get an early idea of the amount you could receive when your previous coursework has been verified.

Jefferson College of Health Sciences uses a modified rolling admissions process. The College begins receiving applications in July and processes them throughout the academic year. Application review begins in the fall with early action in November. Applicants who submit complete applications (see Application Procedure) by November 1, will be reviewed for early admission. Early action letters will be mailed by November 15. Regular admissions review begins January 15 and continues on a rolling basis until programs are full. Jefferson College of Health Sciences admits to programs, and space within each program is limited. Applications and all supporting documents should be received as soon as possible. The Accelerated Pre-licensure Bachelor of Science in Nursing, Occupational Therapy Assistant, and the Physical Therapist Assistant programs uses their own admissions calendars, and students who are interested in these programs should refer to the Additional Program Specific Admissions Requirements section below.

All students who need to request transcripts from their high school or any colleges attended may download a Transcript Request Letter in Word format from our website that will help expedite this critical step.

College Admission Requirements

Students who are interested in Graduate Studies should refer to the Graduate Information section of this catalog for admission requirements.

Incoming undergraduate students must have completed a core of selected high school or college courses, and recent high school graduates (within the past three years; based upon date of entry) should provide SAT or ACT scores (SAT Code 5099, ACT Code 4367).

The following eight units of specific academic coursework are required for admission. A unit is defined as one year of high school study or one semester of college-level coursework. All core coursework must be completed with a grade of "C" or better.

Core Courses:

- English 4 units
- Mathematics 2 units including Algebra 1 and Algebra 2 (or geometry)
- Biology 1 unit (may substitute college-level anatomy & physiology)
- Chemistry 1 unit (may substitute college-level anatomy & physiology)

Applicant Types:

- Traditional Students are recent high school (public or private) graduates from within the past three years (based upon date of entry).
- Home-Schooled Students have completed a secondary school education in a home-school environment that qualifies as an exemption from compulsory attendance requirements under state law. If needed, the Jefferson College of Health Sciences Official Home School Transcript form can be downloaded from our website.
- Transfer Students have completed at least 12 credit hours of college coursework at a regionally accredited college or university.
- Non-Traditional Students hold a high school diploma from a date prior to the past three years.
- Non-Degree-Seeking Students seek to take one or two classes at Jefferson College of Health Sciences without applying to a degree program. The online application is the only document required for this applicant type.

Application Procedure

Application for admission may be made upon the completion of the junior year in high school and preferably no later than 30 days in advance of the enrollment term.

Completed applications must include:

- The online application.
- Official high school and/or college transcripts (from all institutions attended) or copy of the General Equivalency Diploma (GED) as applicable. If the applicant holds a bachelors degree, a high school transcript is not required, unless it is needed to support the above prerequisite core coursework.
- SAT or ACT scores if applicable.
- Any additional program-specific requirements.

Transfer Credits

A student will receive credit for those courses (taken at a regionally accredited college or university) that are comparable to Jefferson courses and in which at least a grade of "C" was earned. The Registrar's Office evaluates each transcript on an individual basis, and prospective students will receive a "Transfer Credit Evaluation" from the Office of Admissions. The Registrar determines transfer courses that meet the College's general education requirements. The director of the program to which the applicant applies will evaluate program-specific coursework. Please refer to "Transfer Credit" in the Undergraduate Information Policies and Procedures section of this catalog.

Additional Program Specific Admission Requirements

Some of our professional programs have additional requirements that are beyond the scope of the basic requirements for admission to the College. The following list explains these requirements. If your intended program of study is not listed, there are no additional requirements to be met beyond the basic college admission requirements.

Bachelor of Science in Emergency Services

- Must be 18 years of age or older prior to the start of the second semester.
- Must have current Virginia EMT-Basic certification (reciprocity is available from other states) prior to the start of the second semester.
- Must have current Virginia FF I certification (reciprocity is available from other ProBoard states) prior to the start of the fourth semester.

Bachelor of Science in Healthcare Management

Students wishing to apply for this program must provide a resume documenting previous education and work experience. Applicants with previous college credit may be awarded advanced placement in the program.

Bachelor of Science in Nursing

Accelerated Pre-licensure BSN Track

- The deadline for receipt of completed applications is January 15 for the Fall cohort and July 1 for the Spring cohort.
- External applicants for this program will receive priority admission over students currently matriculated in a Jefferson Nursing program.
- Baccalaureate degree from a regionally accredited institution with a GPA of 2.7 or higher.
- Completion of the following pre-requisite coursework:
  - 3 credit Social Sciences elective
  - 4 credit Anatomy and Physiology I and II
  - 4 credit Microbiology
  - 3 credit Humanities elective
  - 3 credit English Grammar and Composition I and II
  - 3 credit Nutrition
  - 3 credit Foundations of Ethics
  - 3 credit Lifespan Development
  - 3 credit Introduction to Statistics
- Writing sample, one page or less, double-spaced, 12-font on the following topic:
  Please describe your motivation for pursuing a BSN degree and why you want to do so at Jefferson College of Health Sciences.
- Resume documenting previous education and work experience.
- Completion of all prerequisite coursework by the end of the semester preceding the cohort start.

Pre-licensure BSN Track

Students who have failed two prior nursing courses are not eligible for admission until after a two-year period has elapsed since the last nursing course failure.

Post-licensure RN-BSN Track

- Associate Degree or Diploma in Nursing
- Registered Nurse Licensure from any state or territory of the United States

Associate of Applied Science in Occupational Therapy Assistant

- The deadline for receipt of completed applications is January 15.
- GPA of 2.5 or higher.
- Documentation of attendance at an on-campus or online information session. The online OTA information session may be found on the Jefferson OTA web page at *www.jchs.edu/degree/associate-applied-science-occupational-therapy-assistant*.

- A Portfolio documenting a measure of the applicant's work experience (both paid and unpaid), achievements, and growth. The Portfolio must be in paper format but not enclosed in a hard binder. Any items that applicants consider to be representative of their efforts and achievements will be accepted.
- Following review of the above program admission requirements, selected applicants will be invited for an on-campus interview and essay to determine the final selection of members of the class.

Associate of Applied Science in Physical Therapist Assistant

- The deadline for receipt of completed applications is January 15.
- GPA of 2.5 or higher.
- Documentation of attendance at an on-campus or online information session. The online PTA information session may be found on the Jefferson PTA web page at *www.jchs.edu/degree/associate-applied-science-physical-therapist-assistant*.
- A Portfolio documenting a measure of the applicant's work experience (both paid and unpaid), achievements, and growth. The Portfolio must be in paper format but not enclosed in a hard binder. Any items that applicants consider to be representative of their efforts and achievements will be accepted.
- Following review of the above program admission requirements, selected applicants will be invited for an on-campus interview and essay to determine the final selection of members of the class.

Associate of Applied Science in Surgical Technology

Students must have completed prerequisite courses, BIO 211/211L and HLT 215 with a C or better prior to taking surgical technology (SUR) courses.

Acceptance Notification

Application processing time varies depending on completion of the application requirements.

- During application review, each applicant is considered individually and a decision is made to accept or deny the application, or refer the applicant's file for Alternate Admissions consideration.
- If the noted program is full, qualified applicants are placed on a wait list for future consideration.

The Office of Admissions will notify you by mail. All accepted applicants are required to reply to offers of admission and must submit a deposit to secure a place in their program. The College reserves the right to deny admission to any applicant when such denial is determined to be in the best interest of the College.

Alternate Admissions

Applicants who do not meet the minimum requirements for admission may be referred to the Alternate Admissions process for further consideration. Applicants may be required to participate in additional assessment options in order to determine their potential for success.

Readmission

A previous student at the College must go through the College's general admission procedure for readmission to the College if the student has not attended for three consecutive semesters.

Graduates from one academic program who wish to enter another Jefferson academic program must go through the College's general admission procedure. Any application fees will be waived for students who apply for admission to a different program within twelve months of their graduation.

Readmission after Academic Dismissal

A previous student who has been academically dismissed from the College is not eligible to take coursework at the College for a period of one year (three consecutive semesters) and must successfully complete at least 12 credit hours of college-level coursework to prepare to reapply. Students are encouraged to consult with an advisor or the Registrar's office to plan appropriate course work. The application for readmission should include updated transcripts and a letter to the Office of Admissions that must state the conditions under which the academic dismissal occurred and must explain how the applicant has prepared to achieve academic success if readmitted. Under extenuating circumstances, the student may apply, in writing, to the Dean for Academic Affairs for a waiver of the 12 credit hour requirement. The letter should be submitted through the Office of Admissions. If accepted, the student will participate in the Alternate Admissions process.

International Students

Jefferson College of Health Sciences welcomes international applications and is authorized by federal law to enroll non-immigrant alien students. All international students need a Form I-20 in order to obtain an F-1 student visa to study in the United States. Jefferson College of Health Sciences provides assistance in this process. International students are responsible for maintaining legal status while living in the United States.

Your completed application should include:

- USD $250 application fee
- The Jefferson application
- Official transcripts- Secondary school transcripts must be mailed by the school official and must display the secondary school's official stamp or seal. College transcripts must be mailed to Jefferson College of Health Sciences by the college official and must display the college's official stamp or seal. The applicant also must have an evaluation of the transcripts completed by a foreign credential evaluation service and sent to Jefferson College of Health Sciences. To receive a list of recommended services, please send an e-mail request to: *admissions@jchs.edu*.
- English proficiency demonstrated by a minimum Test of English as a Foreign Language (TOEFL) score of 550 (paper-based), 213 (computer-based) or 80 (web-based)
- Documentation that all financial responsibilities will be met.

Undergraduate Information, Policies and Procedures

Academic Advising

Jefferson College of Health Sciences, through the academic advisement program, offers every student the opportunity for individualized assistance. Upon acceptance, all students are assigned an academic advisor.

Faculty members are responsible for assisting students in developing academic plans that will help the students reach their goals. Although students must bear ultimate responsibility for meeting graduation requirements, the faculty advisor plays an essential supporting role. It is imperative that the advisors know the academic requirements and provide the students with accurate guidance. The program director approves advisor assignments. The Academic Advising Handbook provides detailed information on advising policies and procedures.

Students are strongly encouraged to seek advice from their faculty advisor before making major academic decisions that will affect their progress toward a degree.

College Calendar

Jefferson College of Health Sciences utilizes a semester system. Fall and spring semesters equal 15 weeks each. The college offers five-week and ten-week summer sessions. Final examinations and clinical evaluations are scheduled during the last week of the semester. A full College Calendar is included at the back of this Catalog.

Academic Honors

Academic honors are recognized at Jefferson College of Health Sciences through the publication of a Dean's List and a President's List and through designated honors noted on the graduate's diploma.

President's List
The College recognizes and honors students who have achieved outstanding scholastic records by publishing a President's List each term. Full-time students who

1) complete all pass/fail courses successfully;
2) earn a term grade point average (GPA) of 3.800 to 4.000;
3) have no semester grade lower than a "C,"; and
4) have no incomplete coursework.

are named to the President's List. Courses that are taken with pass/fail grades are not used in the computation of the GPA.

Dean's List
The College recognizes and honors students who have achieved outstanding scholastic records by publishing a Dean's List each term. Full-time students who

1) complete all pass/fail courses successfully;
2) earn a term grade point average (GPA) of 3.400 to 3.799;
3) have no semester grade lower than a "C,"; and
4) have no incomplete coursework.

are named to the Dean's List. Courses that are taken with pass/fail grades are not used in the computation of the GPA.

Graduation Honors

To graduate with honors, a student must achieve the following cumulative grade point average on all credit work attempted at Jefferson College of Health Sciences.

Cum laude
Any student who has completed a formal degree program of study at Jefferson College of Health Sciences with a final cumulative Grade Point Average of 3.400 to 3.599 will be designated as graduating cum laude.

Magna cum laude
Any student who has completed a formal program of study at Jefferson College of Health Sciences with a final cumulative Grade Point Average of 3.600 to 3.799 will be designated as graduating magna cum laude.

Summa cum laude
Any student who has completed a formal program of study at Jefferson College of Health Sciences with a final cumulative Grade Point Average of 3.800 to 4.000 will be designated as graduating summa cum laude.

Academic Standards of Satisfactory Progress

All students at Jefferson College of Health Sciences are expected to achieve consistent progress toward completion of a program. Exhibiting such progress is necessary to remain in good academic standing and to remain eligible to receive financial aid.

All students are required to maintain a cumulative Grade Point Average (GPA) of at least 2.0 and complete at least two-thirds (67%) of all credit hours attempted.

Successful completion of a course is defined as earning a grade of "A," "B," "C," "D," "P," or "S." Exception: All professional courses must be completed with a minimum of "C" or equivalent.

If you take:	You must complete:
1 credit	1 credit
2 credits	2 credits
3 credits	2 credits
4 credits	3 credits
5 credits	4 credits
6 credits	4 credits
7 credits	5 credits
8 credits	6 credits
9 credits	6 credits
10 credits	7 credits

If you take:	You must complete:
11 credits	8 credits
12 credits	8 credits
13 credits	9 credits
14 credits	10 credits
15 credits	10 credits
16 credits	11 credits
17 credits	12 credits
18 credits	12 credits
19 credits	13 credits
20 credits	14 credits

Academic Probation from a Program / Major

Should a student earn less than a minimum grade of "C" in a program-specific course, or earn an "Unsatisfactory" in a clinical component, the student will be placed on program probation and may be ineligible to take further program -specific courses. The student may retake the course during the next academic session in which the course is offered. When the student completes the course with a grade of "C" or better or "Satisfactory," probationary status will be removed. If the student is otherwise eligible to remain at the College during program probation, the student may continue to be enrolled in general education courses.

Academic Dismissal from a Program/Major

An unsatisfactory evaluation is a course grade of "D" or "F" and/or a clinical "Unsatisfactory." The accumulation of two unsatisfactory final course grades, either sequentially or concurrently, in program-specific courses will result in program dismissal.

Even if the student has retaken a program-specific course in which an initial unsatisfactory evaluation was received, that initial unsatisfactory evaluation will still count in the accumulation of two unsatisfactory evaluations.

Petition for re-admission to the program will be considered on an individual basis by the program's admissions committee. (A student must go through the College's general admission procedure for readmission to the College if the student has not attended in 12 months or more).

Upon written notification of the program dismissal, the student's status will be changed by the Registrar's office to "non-major" status. While in "non-major" status the student will be ineligible for financial aid. The student will be referred for advising by a counselor in the Student Affairs Department and then must submit a Change of Major Request form for another major. The student will have until the last date of the drop-add period in the following semester to submit an approved and signed Change of Major Request form to the Registrar's office.

Academic Probation from the College

If a student fails to meet the GPA or credit hour requirement, he/she will be placed on academic probation by the College. All students on academic probation will be automatically referred to the PASS program and are required to participate in an academic contract. Failure to honor any aspect of the contract may result in a student's status being changed from academic probation to College dismissal at any point in the semester.

Academic Dismissal from the College

Academic dismissal from the College will occur if, at the end of the probationary semester, the student's cumulative grade point average is still below 2.0 or the student fails to complete at least two-thirds (67%) of all credit hours attempted. However, if the student achieves a semester grade point average of 2.0, the student may, at the discretion of the Dean for Academic Affairs, be continued on academic probation for an additional semester.

Students re-enrolling after periods of non-enrollment will be evaluated based on their last period of enrollment.

Accommodations for Students with Disabilities

The College is committed to serving students with disabilities by providing appropriate accommodations in compliance with federal and state regulations. Please refer to *Services for Students with Disabilities* under *Student Support Services* in this catalog.

Add/ Drop

During the Add/Drop period, it is the student's responsibility to add or drop classes via his/her Self Service account. A full refund, if applicable, for each class dropped will be made to the student provided the student drops the course(s) in Self Service by the deadline published in the College Calendar for the "Last day to add a class or drop a class with a refund."

A student enrolled in only one class who then drops this class will be considered "Withdrawn" and will be subject to the tuition policy for students who withdraw from Jefferson. (See Tuition *Refund Policy* in the "Finances" section of the Catalog).

Failure to properly drop a class will result in the student being charged for the course and receiving an "F". Students who fail to show up for a class are not automatically dropped from a course.

After the Add/Drop deadline, a student may withdraw from a class or classes according to the policies and procedures outlined under *Withdrawal* in this section of the catalog.

Advanced Placement Policies

The Registrar is responsible for the review, evaluation and granting of advanced placement credit. For advanced placement information regarding individual programs, refer to the advanced placement policies listed under the individual program headings in this catalog.

Advanced Placement Credit
Students who have completed advanced work in high school and have taken the Advanced Placement (AP) tests given by the College Board may be awarded college credit for designated subjects, provided their AP test score is 3 or above.

International Baccalaureate Credit
Students who have a core of 4 or higher on the International Baccalaureate (IB) examination and a score of 5 or higher on the IB higher-level examination may be awarded college credit for designated subjects.

Credit by Exam (CLEP and DANTES)
Jefferson College of Health Sciences participates in the College-level Examination Program (CLEP), a national program sponsored by the College

Entrance Examination Board, and the Defense Activity for Non-Traditional Education Support (DANTES).

The CLEP and DANTES examinations offer any student an opportunity to earn college credit for college-level achievement acquired outside the conventional classroom.
The student should contact the Registrar for a list of approved CLEP and DANTES examinations.

The following policies apply to the use of CLEP and DANTES examinations at Jefferson College of Health Sciences:

1. No more than 18 semester hours may be satisfied through CLEP/DANTES examinations.

2. CLEP/DANTES credit will not be awarded for courses in which the student has previously received a grade below “C” at either Jefferson College of Health Sciences or elsewhere.

3. Official results must be submitted by the College Entrance Examination Board (CEEB) to the Registrar’s Office to be considered for CLEP credit at Jefferson. Official results from the Chauncey Group International must be submitted to be considered for DANTES credit.

4. The Registrar will coordinate the determination and award of CLEP/DANTES credit.

5. The CLEP/DANTES credit is treated the same as transfer credit and is not computed in the Grade Point Average.

6. Unsatisfactory scores will not be recorded on the student’s transcript.

7. The minimum score accepted for CLEP is 50 and reflects the recommendations of the American Council on Education.

The minimum score for DANTES varies based upon the recommendations from the Chauncey Group International. The Registrar maintains a list of these scores.

Challenge Exams for General Education Courses

1. Students wishing to take a challenge exam should contact the Registrar’s office for availability and scheduling.

2. The student who fails a course cannot challenge that same course.

3. The student may challenge a course only once.

4. The student must attain a passing score.

5. The student is responsible for paying test fees as well as fees for College credit if he/she passes the examination. (see the “Bursar’s office” section of this catalog.)

6. Students wishing to undertake a challenge exam must schedule the examination with the program responsible for the course with the program secretary.

7. Credit by exam will not count toward financial aid hours and cannot be used to defer loans.

Prior Learning Assessment

Prior Learning Assessment (PLA) is an academic process of identifying, documenting, and awarding college credit for a student’s previous knowledge and skills. These experiences could occur through the following:

1. Workplace training
2. Volunteer activities
3. Civic duties
4. Major life experiences
5. Lifelong learning

Through this process, the student analyzes their past experiences and develops a portfolio documenting how those learning experiences met learning objectives of a specified course(s). Development of a PLA portfolio is facilitated by taking PLA 200. The portfolio is then evaluated by an appointed team to determine whether credit is awarded.

PLA credit is not available for courses that offer a CLEP, DANTES or challenge exam. More information on the PLA process can be found on the Jefferson website.

Assessment/ Outcomes Policy

To assist the College with continuous self-evaluation, students and alumni will be asked to participate in various assessment activities, including, but not limited to, answering survey questions, taking standardized and College-prepared tests, and submitting portfolios of documents from coursework. Some of these activities will be required and some may be voluntary.

Jefferson periodically reviews samples of student work to ensure that the curriculum leads to attainment of student learning outcomes. All student work is subject to review by the Institutional Student Learning Outcomes Committee (ISLOC). Student names are not included on any reviewed work in order to ensure anonymity. This review will not affect student grades or progression.

Attendance Policy

Registration in a course presupposes that the student will attend scheduled classes and laboratory sessions.

Therefore, the following general attendance policies are in effect for Jefferson College of Health Sciences. Specific attendance policies are found in the expanded syllabus for each course:

1. Students must attend the first meeting of each course in order to ensure enrollment. Students enrolled in online learning courses must log in and begin coursework prior to the end of the first week the course begins.

2. Students are required to attend on time all regularly scheduled classes, laboratories, field trips, observation assignments, conferences and

3. Clinicals.

Students assume the full responsibility for advising professors of their absences and for initiating the procedure for making up any work missed.

Audit Policy

An audited course does not contribute toward the grade point average nor count towards residency or financial aid hours. Auditors will not receive a grade for the course.

Any student has the option to register for a class on an “audit” basis with the permission of the instructor and when space is available. The auditor’s responsibilities in a course are determined through negotiation with the instructor. Students cannot audit the clinical component of professional courses. Auditors requesting a change in status must follow the same guidelines for dropping or adding a class as listed in the official College Calendar.

Calculating Grade Point Average

The grade point average (GPA) is used to determine the Dean's List, the President’s List, Graduation Honors, Academic Probation, and College Dismissal. It is the student’s responsibility to determine if his or her cumulative GPA is accurate and to report any discrepancy to the Registrar.

To calculate GPA, divide the total number of quality points by the total number of graded credit hours attempted. When calculating graded credit hours attempted, pass/fail courses are not included.

Previous courses transferred to the College and courses numbered 000 to 099 are not included in GPA calculations.

Quality points are calculated by multiplying the credit hours in a course by the grade value: A=4, B=3, C=2, D=1, F=0.

Example of GPA Calculation:

Course	Grade	Credits	X	Quality Points	Total
BIO 211	B	4	X	3	12
BUS 111	F	1	X	0	0
ENG 111	A	3	X	4	12
GEN 100	A	1	X	4	4
HLT 215	B	3	X	3	9
PSY 101	D	3	X	1	3
Total Credits	**15**			***Total Quality Points***	**40**
Total Quality Points (40) divided by Credits Attempted (15) = **2.667**					

Catalog Policy/Rights Reserved

The catalog for the term in which a student enters Jefferson College of Health Sciences is the governing document for requirements for graduation. However, if the application of regulations in a later catalog would be to the student's advantage, such regulations may be applied at the discretion of the Department Chair and Program Director.

If a student leaves Jefferson College of Health Sciences and enrolls as a full-time student at another institution or is dropped for academic or disciplinary deficiency and subsequently re-enrolls at the College, the governing catalog for the student will be that for the term of re-enrollment.
All College publications contain current pertinent information. While striving to ensure the accuracy of published information, the College reserves the right, to make necessary changes in any or all of the regulatory policies and procedures, requirements, personnel, curriculum offerings, general information, and tuition and fees contained herein, and to apply revisions to current and new students alike. Therefore, the information is subject to change without notice and does not constitute a contract between Jefferson College of Health Sciences and a student or applicant.

Jefferson College of Health Sciences reserves the right to deny admission to any

applicant when it is determined to be in the best interest of the College.

No academic information, grade reports, transcripts or diplomas will be issued for any student who has not met their responsibilities and financial obligations to the College prior to graduation date.

Matriculation Policy for Students with Advanced Placement or Transfer Credits

The programs of study published in this edition of the catalog apply to those students entering a program when this catalog is in effect. A student who receives advanced placement or who has significant transfer credit may be matriculated into a previous program of study. Should this occur, notification will be made when the advanced placement or transfer credit is granted and the student will be provided with the appropriate plan of study.

Course Cancellation

Course sections with insufficient enrollment may be canceled. Every effort will be made to accommodate displaced students in other sections. Students enrolled in a course section will be notified of cancellation by e-mail by the department or program responsible for the course. Students are encouraged to check routinely for changes in course schedules.

Course Load Policy

The course load at Jefferson College of Health Sciences is expressed in semester credits. The average course load varies according to the individual program. Students should refer to their program of study to determine the average course load per semester.

A full-time undergraduate student is registered for 12 or more credit hours per semester. Eighteen credit hours is the maximum number of credits a full-time student may take in one semester without Academic Advisor and/or Program Director approval.

Credit Hours

The semester credit is the standard unit of credit awarded by Jefferson. To provide students time to travel between courses, one hour equals 50 minutes. One semester credit is equal to 15 hours of instruction, including examinations. For on-campus laboratory courses, one semester credit is equal to 30 hours of instruction, including examinations. The semester credit hours awarded for practica, externships, and clinical experiences range from 45 to 55 hours of instruction for each one semester credit, in accordance with professional accrediting agency expectations.

Programs leading to the Associate of Science or Associate of Applied Science Degree consist of a minimum of 60 semester credit hours. Programs leading to the Bachelor of Science Degree consist of a minimum of 120 semester credit hours.

Course Delivery Methods

Jefferson College of Health Sciences offers high-quality courses in classroom, online, hybrid, and experiential formats that are consistent in rigor while also accommodating scheduling and location constraints. For specific requirements, students should contact the course instructor.

Traditional Courses

Traditional courses meet on the Jefferson campus (or in otherwise designated locations). Traditional courses do not have a letter designation before the section number.

Online & Blended/Hybrid Courses

Online and blended/hybrid courses may utilize multi-modal methods of teaching and student interaction intended to encourage a high level of student commitment and engagement. Online courses (designated by "D") take place exclusively online. Hybrid courses (designated by "S") require both online and in-class participation.

Experiential Courses

Experiential instruction provides supervised development and application of learned skills in varying environments in the form of lab courses (designated by "L"), clinical courses (designated by "C"), and internship courses (designated by "I").

Dual Majors, Minors and Second Degrees

Jefferson students may earn dual majors, minors, and second degrees while enrolled at the college.

Dual Majors
The student must meet all requirements for both majors. There are no restrictions on courses that overlap.

Minors
The student must complete 15-19 hours in the minor; 6 hours of which must be at the 300-400 level. Specific requirements (credits and specific courses) will be determined by the major area.

Second Degrees
If the first degree was earned from Jefferson, at least 30 hours of new coursework must be completed. The student must meet major and other degree (including Jefferson core) requirements.

If the first degree was not earned from Jefferson, at least 40 hours of new coursework must be completed. The student must meet major and other degree (including Jefferson core) requirements.

Emergency Class Cancellation

The College will close for weather emergencies, disasters, or incidents based on the decision of the College Administration. Notification of emergency class cancellation is made via the emergency alert system (e2Campus), college website, and main phone number. Students are encouraged to sign up for e2Campus. Students may also listen for cancellation notices on local radio and television stations. Please note that the college has no control over how rapidly or accurately the radio and television stations report closings.

English Language Proficiency

Students for whom English is not their primary language must demonstrate English proficiency in one of the following ways:

Graduation from an English speaking high school and completion of high school English IV or:

- A minimum score of 550 on the Test of English as a Foreign Language (TOEFL) written exam, or;
- A minimum score of 213 on the computer adaptive TOEFL exam, or;
- A minimum score of 80 on the web-based TOEFL exam, or;
- A minimum score of 19 on the English portion of the ACT, or;
- Transfer credit for ENG 111.

Students who do not meet the criteria listed above are recommended to take remedial coursework before attending Jefferson College of Health Sciences.

Examinations

Students are expected to complete all examinations at the date and time stipulated in the course syllabus or as updated/modified by the course instructor.

Students are expected to adhere to the published final examination schedule. No student may take a final examination in a course at any time except within the period officially set aside for this purpose without the prior approval of the instructor.

If a student is unable, because of illness or an acceptable emergency, to appear for an examination, it is the student's responsibility to inform the instructor prior to the scheduled examination. Instructors have the right to ask for documentation regarding the illness or emergency.

Should the final examination schedule require the student to sit for more than two examinations in a day, arrangements may be made with the instructor to schedule one of the examinations at another time. Should the student and

instructor not be able to come to a satisfactory arrangement, the student may pursue the issue with the Dean for Academic Affairs.

Failure to Meet Financial Obligations

Students are responsible for all financial obligations to the College or are responsible to make appropriate arrangements with the Dean for Administrative Services. The College may take the following measures for students in default of financial obligations:

- deny admission to class or clinical activities;
- deny registration for any subsequent course;
- immediate dismissal from the College;
- withhold transcripts;
- withhold the granting of degrees, diplomas or certificates;
- withhold references;
- deny participation in graduation activities; and
- withhold verification of applicant's credentials for licensure/certification.

Grades and Grading Policies

Grade Reports

Mid Term and Final grade reports are posted each semester via Self-Service. The mid-term grade report indicates a student's progress and serves to identify potential academic problems. Students in any full-semester class are issued an online midterm grade report of S (Satisfactory) or U (Unsatisfactory) via Self-Service. An "S" is equivalent to a C or above.

In order for a student to receive a grade or credit in a course, the student's name must appear on the official class list posted on Self-Service. The Institution may hold transcripts for outstanding financial balances.

Grading System

A = 4 quality points
B = 3 quality points
C = 2 quality points
D = 1 quality points
F = 0 quality points

P/S - Passing and Satisfactory are included in the computation of total hours earned; however, no grade quality points are assigned.

W - Withdrawal. Not included in the computation of hours earned or grade points achieved. A student may withdraw from a course before the last day to withdraw as stated in the official College Calendar.

WA - Administrative Withdrawal. Administrative Withdrawals are only issued by the Dean for Academic Affairs.

AU - Audit/No credit. Permission of the instructor is required to audit a course. Fee required. (Please see "Finances" section of this catalog.)

I - An incomplete (I) for a course will be granted only in cases of documented circumstances beyond the student's control that prevent the student from completing the course requirements on time. The written request for an Incomplete must be signed by the instructor of record and the course program director, then submitted to the Registrar's office before grades are due that semester.

In order to receive an "I", a student needs to have satisfactorily completed the majority of the coursework (over 75%) with a course average of "C" or above. The incomplete work must be made up by the last day to drop a class with a "W" in the academic term (excluding Summer Session) immediately following the term in which the "I" was issued.

Upon completion of the coursework, the "I" will be replaced with a final grade. If the course is not completed within the required time limit, the "I" will be converted into an "F" grade unless an extension is granted.

IE- In special documented cases, such as a lengthy illness, the student may request, in writing, an eight-week extension which must be approved by the instructor of record and course program director and filed with the Registrar's office.

Upon completion of the coursework, the "IE" will be replaced with a final grade. If the course is not completed within the required time limit, the "IE" will be converted into an "F" grade unless an additional extension is granted.

NG - No Grade. Assigned to courses that bear zero credits. Not included in computation of hours earned or grade quality points accumulated.

Grade Change Policy

Final grade reports are available online via Self-Service. Final grades are a part of the student's record and are recorded in the student's permanent record.

Errors should be reported to the Registrar. Normally, a change of grade(s) cannot take place after the semester following the issuance of the grade.

Grade changes must be submitted in writing on an official Change of Grade form and may only be submitted by the instructor who submitted the original grade.

Grade Forgiveness Policy

A student may improve his/her grade point average by repeating a course a maximum of two times at Jefferson College of Health Sciences. A course repeated at Jefferson will be denoted as a repeat course on the official transcript. All grades earned for all courses taken at Jefferson will appear on the grade report but the best grade earned in a repeated course is used in calculating the cumulative grade point average. If the course is repeated at another institution the course will be recorded as transfer credit earned.

Please note: Requests for transfer credit for courses taken at other institutions of higher education must be submitted in writing to and be approved by the Registrar's Office prior to taking the course(s).

Graduation and Graduation Policies

Graduation Application

It is the responsibility of the student to submit an Application for Graduation two academic sessions prior to the academic session in which the student expects to complete curriculum and College requirements for graduation. The student must file the application with the Registrar's Office. The application is available in the Registrar's Office and on the College's website.

Graduation Ceremonies

The official date of graduation is the date of the commencement ceremony in May or December, if all degree requirements are satisfied in the appropriate semester.

Formal graduation ceremonies are held each year in the spring and fall. All students who have completed degree requirements in the fall, spring or summer session of that academic year are eligible to participate in the appropriate ceremony.
Students who plan to complete degree requirements at the end of the Summer Semester may participate in the preceding Spring Graduation ceremonies pending completion of degree requirements under the following policy:

1. At the time of Spring Graduation the student may not have more than 6 credit hours pending.

2. The outstanding credits must be completed by the last day of final exams of the Summer Semester immediately following the Spring graduation in which the student participated. A written plan for completing these credits must be filed with the Registrar's Office before participating in the Spring ceremony.

3. The student will not be eligible to participate in any other graduation ceremony for conferral of the same degree.

Degree candidates are expected to dress and conduct themselves in an appropriate manner in accordance with the solemnity of the commencement ceremony. Individuals arriving late may not be able to participate in the ceremonies.

Academic regalia must be worn and should not be altered with writing on regalia, carrying personal symbols, displays on caps, etc. Candidates who alter their regalia or behave inappropriately may be dismissed from the graduation ceremony.

Graduation Honors

To graduate with honors, a student must achieve the following final cumulative grade
point average at Jefferson College of Health Sciences.

Cum laude
Any student who has completed a degree program of study at Jefferson College of Health Sciences with a final cumulative Grade Point Average of 3.400 to 3.599 will be designated as graduating cum laude.

Magna cum laude
Any student who has completed a degree program of study at Jefferson College of Health Sciences with a final cumulative Grade Point Average of 3.600 to 3.799 will be designated as graduating magna cum laude.

Summa cum laude
Any student who has completed a degree program of study at Jefferson College of Health Sciences with a final cumulative Grade Point Average of 3.800 to 4.000 will be designated as graduating summa cum laude.

Graduation Marshals

Full-time students with the highest grade point averages may be invited to serve as marshals at the Commencement.

Graduation Requirements

A student is eligible for graduation when the following criteria have been met:

- All professional courses must be completed at Jefferson College of Health Sciences unless exceptions are permitted by the appropriate Program Director.

- To earn an undergraduate degree, the student must complete a minimum of 25% of the program of study at Jefferson College of Health Sciences. Individual programs may require additional coursework to be completed at Jefferson College of Health Sciences; the number and nature of credit hours is determined by each program.

- The minimum number of course credit hours prescribed in the chosen program of study must be successfully completed with a cumulative 2.0 GPA or better.

- All professional courses must be completed with a minimum grade of "C" or equivalent.

- The Application for Graduation and the Student Exit Form must be completed and returned to the Registrar's Office.

- All specific program requirements must be satisfied and the appropriate instructional authority in the curriculum must recommend the student for graduation.

- All financial obligations to the College must be met.

Health Records and Clinical Rotation Requirements

Jefferson College of Health Sciences requires all students to submit certain health record information. Some programs may have additional requirements, such as background check, drug screen, and CPR certification. For specific information please see the Jefferson Student Handbook and the Program Handbook.

Honor Code: Community Values and Standards

Honor Code: I will not cheat, lie, or steal nor tolerate those who do.

Every member of the Jefferson Community is responsible for upholding our values and standards. Faculty will include a statement regarding the Honor Code in their expanded syllabi.

It is everyone's responsibility to know what constitutes a violation of the Honor Code. Students who violate the Honor Code may receive a failing grade for the assignment or the course. They will not be granted a grade of "W" in the course and may, depending on the nature of the offense, be suspended or permanently dismissed/expelled. The College reserves the right to deny admission to or remove students from any program if they have a record of misconduct or demonstrate behavior that would jeopardize their professional performance.

Students should see the relevant sections in the *Jefferson Student Handbook*.

Impairment Policy

Jefferson College of Health Sciences has a professional and ethical responsibility to safeguard students and patients. Impairment is defined as posing a risk to self or others by reason of illness, use of alcohol, drugs, narcotics or chemicals or any other type of material, or as a result of any mental or physical condition. When impairment is the result of a suspected, or known, substance abuse or mental illness, the student should be referred to the Dean for Student Affairs or to his/her designee, who may refer the student for assessment and evaluation. Referred students may be asked to undergo evaluation as defined by the Dean for Student Affairs or his/her designee. Any student who refuses to be evaluated will be suspended from classroom and clinical activities and, when appropriate, removed from the residence halls. A student determined to be impaired may also be suspended or dismissed from the College and/or be required to undergo specified treatment to remediate the impairment and potentially allow them to return to the College.

A student dismissed from the College due to impairment, and desiring readmission, must submit a written report of treatment to the Dean for Student Affairs (or his/her designee). Compliance with treatment, as verified by the provider, will be used in considering a student's request for readmission. Readmission to a program or to the College is not guaranteed and will be considered on an individual basis. Continuation in the College is contingent upon the student's remaining free of mood altering, controlled or addictive substances; following through with any recommended treatment or conditions set forth, being physically and mentally able to meet the didactic and clinical objectives of the program and College; and being able to provide a risk-free environment for self and others. Students should refer to the *Jefferson Student Handbook* for further information.

Independent Study Policy

Independent Study courses may be offered by any program.
Permission to take an Independent Study course is contingent upon the following conditions:

1. The student is in good academic standing.
2. A qualified faculty member is available and willing to serve as instructor.
3. Permission to undertake an independent study course must be applied for by submitting an Independent Study Course Contract.
4. The instructor, Program Director, Department Chair and Dean for Academic Affairs must approve the independent study course proposal.
5. The proposed independent study course does not duplicate a course already scheduled in the relevant semester.
6. The independent study course must be completed within the confines of the given semester in which it is offered.

Interprofessional Education/Interdisciplinary Studies

Jefferson has identified broad-based interdisciplinary learning as a component of its mission, believing that it is essential to improve healthcare outcomes. To accomplish this, elective and required courses in Interdisciplinary Studies (IDS) and Interprofessional Education (IPE) are interwoven in the program curricula. IPE and IDS courses integrate theory, innovative practice, and technology into classroom, laboratory, and clinical settings. IDS courses provide students from all curricula with knowledge that transcends the boundaries of specific healthcare disciplines. Students in IPE courses engage in interprofessional teamwork around problems specific to the topic of the course.

Jury Duty

The faculty will make reasonable accommodations for any student required to fulfill Jury Duty obligations. The student must submit official verification of jury duty to the Program Director.

Leave of Absence

A student in good academic standing who has a cumulative grade point average of 2.0 or above may request a leave of absence for health or other personal reasons.

A leave of absence shall not exceed 12 months. After that, the student must reapply for admission. An extension of the leave of absence has been granted by the Dean for Academic Affairs.

The student must request the leave of absence in writing through the Registrar's Office after consultation with the Program Director. In this written request, he/she must state an intended date of return to the College. A copy of this leave of absence must be sent to the Bursar and Financial Aid. The Registrar's Office will inform relevant others of all approved leaves.

The student on leave of absence must satisfy any conditions of the leave before re-entering and must comply with the course sequence and/or any curricular changes at the time of reentry.

A student's return is subject to available space.

Military Policy

Active Duty:

1. **Purpose**: This policy applies to all enrolled students voluntarily or involuntarily called to active duty for a specified or indefinite period of time. In accordance with the Virginia Tuition Relief, Refund and Reinstatement

Guidelines set forth by the State Council of Higher Education (SCHEV), the following definition of service applies:
"Service in the uniformed services" means service (whether voluntary or involuntary) on active duty in the Armed Forces, including such service by a member of the National Guard or Reserve, for a period of more than 30 days under call or order to active duty of more than 30 days.

2. **Withdrawing from Courses**: Students currently enrolled have two options from which to choose based on the timeframe in which the activation is initiated.
   A. Between the Add/Drop Deadline and the Last Day to Withdraw with a W: If the activation takes place during this interval the student may withdraw from some or all courses with a non-punitive grade of "W", tuition refunded at 100% for withdrawn courses, and housing pro-rated based on published fees.
   B. After the Last Day to Withdraw with a W:
   If the activation takes place late in the semester, the student and the instructor may make appropriate arrangements to complete a course. Such courses will be awarded an Incomplete grade subject to satisfactory and timely completion of course requirements. This option will be administered on a case-by-case basis by Program Directors, dependent upon the feasibility of completing course work and accommodation of arrangements with the appropriate faculty members. Courses less than two-thirds completed normally will not be considered for this option. Instructors must submit to the Registrar a “Request for Incomplete Semester Grade." If this Incomplete Semester Grade option is chosen, no reimbursement of tuition or fees will be provided. Housing refund will be pro-rated based on published fees.

   Otherwise, the student may receive an Administrative Withdrawal from the Dean for Academic Affairs with non-punitive grades of “WA”, tuition reimbursed at 100% for withdrawn courses, and a pro-rated housing refund.

3. **Procedure for Exiting the College**
   A. Current Students: Upon notification of activation, students should report to the Registrar's Office with the official orders or contact information of where orders can be verified. Students will be advised of the process and procedures for exit.
   B. Admitted and Deposited Students Not Yet Attending: Upon notification of activation, students should contact the Admissions Office with the official orders or contact information of where orders can be verified.

4. **Reimbursement Policy**

Any student enrolled in a given semester who is called to active duty (as verified through official individual orders) may choose to complete some or all of the courses and receive grade(s), or withdraw from one or more courses with non-punitive grades assigned. Reimbursement of tuition will be provided as follows:

A. Students who choose to earn grades and/or incompletes—No reimbursement will be given.
B. Students who withdraw--Reimbursement of tuition will be at 100% of the course with housing fees pro-rated based on the date of exit.

5. **Readmission**

A. Return from Leave Time Limit: Students activated while a full-time student at Jefferson will have five years from the completion of their active duty assignment to return to Jefferson to fulfill their degree requirements. Students are reminded, however, that they are still responsible to fulfill all institutional obligations and meet all policies.
B. Program of Study: Students who leave Jefferson under active duty orders will return to their original program provided that the program is still offered at the College. In cases where the program is no longer offered, the student will work with the Dean for Academic Affairs to establish the guidelines, requirements, and program substitutions necessary to complete the remaining requirements of a mutually agreeable program.
C. Resources: Upon return to Jefferson, additional resources will be made available to assist with program completion.

6. **Procedure for Readmission:**

A. Upon determination of when the student wishes to return to Jefferson, the student must notify the Admissions Office, and complete all health records and clinical rotation requirements in accordance with college policy.
B. Once notification has been presented by the student; the Admissions Office will review the file to determine if additional information is required.
C. Readmission will be processed beginning the start of the next scheduled full-time semester. A student will return under the same status and conditions in effect at the time of departure (i.e., Academic Probation, etc.) and will be reintegrated into the Program based on completed requirements.

7. **Other Implications**:

A. Students who choose to leave prior to the start of their formal active duty are reminded that their full-time status ends on the date of exit. This date is important as it reflects the date reported to the Department of Education

and National Student Clearinghouse for purposes of full-time status for insurance coverage and loan repayment (if applicable). Students are urged to contact these agencies for implications related to their active duty status.

B. Students should contact the bookstore immediately upon notification of activation to arrange for reimbursement afforded for books obtained per the bookstore's reimbursement policy at the time books are returned.

Short-term Military Obligations

The faculty will make reasonable accommodations for any student required to fulfill military obligations. This includes time to complete assignments, tests, or quizzes missed during this absence. The student must submit official verification of military obligations to the Program Director.

Minimum Performance Standards for Admission and Progression

In compliance with the Americans with Disabilities Act, students must be, with reasonable accommodations, physically and mentally capable of performing minimal standards to meet program objectives. If a student cannot demonstrate the ability to meet the technical standards, it is the responsibility of the student to request appropriate accommodations by scheduling an appointment with the Coordinator of Services for Students with Disabilities. The College will determine whether it agrees that the student can meet the technical standards with reasonable accommodation. This includes a review as to whether the accommodations requested are reasonable, taking into account whether accommodations would jeopardize clinician or client safety, the institution, or the educational process of the student, including all coursework and clinical experiences deemed essential for graduation. Students should see their program descriptions for program-specific Minimal Performance Standards.

Non-Discrimination Policy

Jefferson College of Health Sciences does not discriminate against employees, students, or applicants on the basis of race, color, gender, sexual orientation, disability, age, veteran status, national origin, religion, or political affiliation in accordance with the requirements of Title VI of the Civil Rights Act, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and all other applicable rules and regulations. Anyone having questions concerning any of those regulations, should contact the Equal Opportunity/Affirmative Action Office:

Ms. Anna Millirons, Dean for Administrative Services
Jefferson College of Health Sciences
101 Elm Avenue S. E.
Roanoke, VA 24013
Phone: (540) 985-8530

Program or Major Specific Courses

Enrollment in major-specific courses is limited to students accepted to the major or those who have the Program Director's approval.

Publicity, Public Relations and Marketing Information

Representatives from Jefferson, as well as Carilion Clinic, may occasionally attend College functions held on or off the Jefferson campus for purposes of taking pictures or video of students, faculty or staff. The purpose of the media may include publicity, public relations and/or marketing of the College. In addition, students, faculty and staff may be approached by representatives from the above departments for interviews pertaining to the events.

The images, videos and interviews will be used solely for the purposes of marketing the college or generating publicity in local or regional media outlets. This material may be used on the College or Carilion Clinic websites, on social media sites related to Jefferson College of Health Sciences (such as Facebook or Twitter), or in the form of advertisements, advertorials or news/feature stories published external media outlets.

You may opt out of participating in these photo/video opportunities or interviews by approaching the photographer/interviewer and asking not to be included. Without notification of opting out, the College assumes that students who attend these events agree to participate if they are featured in photos, videos or interviews.

Additionally, Jefferson periodically releases information about student activities and achievements, such as placement on honorary academic achievement lists, receipt of awards or graduations. This information may include a student's name, program of study and awards or degrees conferred.

Any student may have this information withheld by notifying the Jefferson Registrar's Office. The College assumes that the failure of any student to do so indicates approval for release of information.

Readmission Policy

Any student who has not been in attendance at the College for three consecutive semesters must apply for readmission through the Office of Admissions, submit the appropriate application fee, and be in good financial standing with the College.

Readmission After Graduation

Graduates from one academic program who wish to enter another Jefferson academic program must go through the College's general admission procedure.

Any application fees will be waived for students who apply for admission to a different program within twelve months of their graduation.

- ***Good Academic Standing*** - Any former student, while in good standing, seeking readmission to the College within one academic year of withdrawal must reactivate his or her application by submitting a letter of request to the Program Office. Readmission will be subject to available space in the program and the academic standing of the student when the student left the College.

- ***Unsatisfactory Academic Standing*** – Any student on professional program probation (suspended from professional course sequence) but permitted to continue in attendance in general education courses, may retake the professional course once subject to space availability. Any student desiring to re-enroll must submit a written request to the Program Director at least thirty days prior to the term for which reentry is sought.

- ***Following Two Final Unsatisfactory Evaluations*** – Any student receiving two unsatisfactory evaluations in any professional courses will be considered dismissed from the program and must petition for readmission to that program. Petitions will be considered on an individual basis. The petition must be in writing and should include evidence of remediation or change in personal circumstances that would lead to a higher likelihood of success. A personal interview with the Program Director may be required. ***STUDENTS MAY APPLY ONLY ONCE FOR READMISSION TO PROFESSIONAL PROGRAMS***

- ***Following Academic Dismissal –*** Students who are academically dismissed from the College and who wish to apply for readmission should refer to *Readmission after Academic Dismissal,* in the Undergraduate Admissions section of the catalog.

- ***Following Administrative Dismissal*** – Circumstances surrounding the administrative dismissal of any student will be a determining factor in whether readmission can be considered.

- No student dismissed for the following reasons will be considered for readmission:

    - Evidence of being under the influence of, or excessive use of, alcohol, drugs, chemicals or any other type of mind-altering substances in a clinical environment

    - Conviction of a felony

    - Diversion of supplies, equipment or drugs for personal or other unauthorized use

- Abuse, neglect or abandonment of patients
- Violation of the policies of clinical agencies
- Violation of a safety rule or a safety practice

Registration

Registration is required each semester before a student may attend classes. Specific registration information is provided in the class schedule each semester.

Prior to gaining access to Self-Service, students must meet the following requirements:

- Meet with their advisor. Students who have not been assigned an advisor should see the Registrar.
- Meet all financial obligations to the College.
- Complete/update all required health information and forms through Student Affairs.

Any student who has not paid tuition fees or made suitable arrangements with the Bursar, will have his or her registration cancelled and will not be permitted to attend class, clinicals, rotations or internships.

Official class rolls will be available online via Self-Service to all instructors after the last day to add a class. At this time, any student who has not paid tuition fees or made suitable arrangements in the Bursar's Office will have his or her registration cancelled and will not be permitted to attend class, clinical or internship.

Responsibility of the Student

Each student is responsible for understanding and following the policies, requirements for the degree, and all associated deadlines provided in the *Catalog* and *Jefferson Student Handbook.* Although each student is assigned an academic advisor, the ultimate responsibility for compliance with the policies, the stated requirements for the degree, and all associated deadlines lies with the student.

The responsibility for meeting degree or certification requirements rests with the student.

Student Complaints/ Grievances

Students who believe that they have been treated unfairly with respect to the application of the laws, rules, policies, procedures or regulations under which the

College operates or because of race, religion, color, national origin, age, gender, sexual orientation, veteran status or disabilities may file a formal complaint. A complaint/grievance is an internal matter subject to the guidelines located in the Student Handbook, which is published on the College website (*www.jchs.edu*) under "Campus Life" and is also available in the Office of Student Affairs, located on the 4th floor of the Carilion Roanoke Community Hospital Building.

Student Exit Form

A Student Exit Form must be submitted to the Registrar's Office if a student is graduating, completely withdrawing from the college or requesting a Leave of Absence. The form is available online or in the Registrar's Office. Seniors planning to graduate must submit the form no sooner than two weeks before the graduation date but no later than the last official day of classes prior to the anticipated graduation. The exiting student must obtain clearance from all departments listed to verify that all obligations to Jefferson College of Health Sciences have been satisfied before the student can be eligible for graduation or have any requests for transcripts honored.

Student Classifications

The classification of a student during any academic year will be based on the official transcript issued by the Registrar's Office.

Students' class standing is determined by the total number of credit hours earned at Jefferson and any transfer credits that have been accepted by the College and/or completion of required courses for the appropriate year.

According to Hours Enrolled

- *Full-time*
  An undergraduate student registered for 12 or more credit hours per semester or a graduate student registered for 9 or more credit hours per semester.

- *Three-quarter time*
  An undergraduate student registered for 9 to 11 credit hours per semester.

- *Half-time*
  An undergraduate student registered for 6 to 8 credit hours per semester or a graduate student registered for 6 to 8 credit hours per semester.

According to Hours Completed

- *Freshman*
  A student with fewer than 24 course credits completed (Grade Level 01) in a designated curriculum.

- *Sophomore*
  A student with not less than 24 or more than 57 course (Grade Level 02) credits completed in a designated baccalaureate degree curriculum or an associate degree candidate with 24 or more credit hours completed in a designated curriculum. Associate degree candidates may not exceed sophomore standing.

- *Junior*
  A student with not less than 58 or more than 91 course (Grade Level 03) credits completed in a designated baccalaureate degree curriculum.

- *Senior*
  A student with 92 or more course credits completed (Grade Level 04) in a designated baccalaureate degree curriculum.

For all classes, transfer credits are included provided they meet the requirements of the student's curriculum.

According to Admission Status

- *Degree Student*
  A full-time or part-time student, accepted and matriculated into a degree program.

- *Certificate Student*
  A full-time or part-time student, accepted and matriculated into a certificate program.

- *Special Student*
  A student enrolled for fewer than 9 credit hours and not accepted into a program.

Students' Rights of Access to Their Educational Record

The College complies with the Family Educational Rights and Privacy Act of 1974 (FERPA), as amended (often referred to as the "Buckley Amendment"), which protects the privacy of educational records, establishes students' rights to inspect their records, provides guidelines for correcting inaccurate or misleading data, and permits students to file complaints with the Family Educational Rights and Privacy Act Office. *Portions of this policy were adapted from the*

recommendations of the American Association of Collegiate Registrars and Admissions Officers (2006), Family Educational Rights and Privacy Act 2006 Guide, Washington, DC.

Educational records are defined as any record maintained by the institution in which a student can be personally identified. Record formats may include handwritten, printed, computer images or data, e-mail, video/photos, audio tapes, and microfilm/microfiche. However, education records do not include private notes maintained by a College official that are not accessible or released to other personnel, law enforcement or campus security records, medical records, employment records, and alumni records.
Students are afforded the following rights with respect to their educational records:

1. The right to inspect and review his/her education records within 45 days of the day the College receives a request for access. Students should submit to the Registrar, Dean for Academic Affairs, Dean for Student Affairs, Department Chair, or Program Director a written request that identifies the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place when the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, the official shall advise the student of the correct official to whom the request should be addressed

2. The right to request the amendment of his/her education records that the student believes to be inaccurate or misleading. Students may ask the College to amend a record that they believe is inaccurate or misleading. They should write the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his/her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosures without consent. Access to students' records, except directory information, which may be released, is never granted to individuals from off campus requesting information, unless the student involved has given written permission or as applicable law requires. Directory information is defined as the student's name, address, phone number, dates of attendance, curriculum, honors, degrees granted, graduation dates, and participation in officially approved activities. Students may restrict access to their directory information by contacting the Registrar's Office and filing a written request. To minimize the risk of improper disclosure, academic and disciplinary records are kept separate.

Students may authorize disclosure of information to parents or anyone else by completing a *Student Permission to Release Information Form* available in the Registrar's Office. This authorization for disclosure may also be revoked by the student through written notification to the Registrar's Office.

The College may also exercise its discretion to disclose information from the student's educational records without written authorization from the student under the following circumstances:

a. to federal, state, and local authorities involved in the audit or evaluation of compliance with education programs;

b. to comply with a judicial order or subpoena;

c. in connection with financial aid;

d. to organizations conducting studies for or on behalf of educational institutions;

e. to accrediting organizations;

f. to the parents of a dependent student (special guidelines apply);

g. when a health or safety emergency is apparent;

h. when directory information is being released;

i. to an alleged victim of a crime of violence, the results of a disciplinary hearing may be disclosed; and

j. to school officials who have a legitimate educational interest. A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including security personnel and health staff); a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Directors; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an educational record in order to fulfill his or her professional responsibility.

4. The right to file a complaint with the U.S. Department of Education concerning the alleged failures by the College to comply with requirements of FERPA. The name and address of the office that administers FERPA is Family Policy Compliance Offices, U.S. Department of Education, 400 Maryland Avenue SW, Washington, D.C. 20202-4605.

Transcripts

The Jefferson College of Health Sciences transcript is the official record of student academic progress, documenting all course grades, grade point average, and degree(s) awarded. The Registrar issues transcripts of a student's Jefferson College of Health Sciences academic record upon written request of the student. The Family Rights and Privacy Act serves as the basis for releasing information about the student.

Telephone requests cannot be honored. Official transcripts will not be issued to students with unpaid accounts and those who are in default on federal loan payments and/or owe a repayment on any federal grant. Ten business days prior to need, requests for transcripts may be submitted in the following ways:

- in writing by mail or in person,
- by fax with signature,
- via Self-Service, or
- via *iwantmytranscripts.com*.

When requesting a transcript, students must include name, present address, social security number, birth date, maiden name, estimated date of last attendance, signature and the name and address to which the transcript should be sent.

The College will not provide students with copies of transcripts from other institutions. Copies of transcripts issued directly to students will have written on them "issued to the student."

Transfer Credit

The awarding of transfer credit for courses taken at other institutions of higher education is processed by the Registrar's Office. Official transcripts from the college or university are required before transfer credit is considered.

- The course considered must be comparable in content and credit hours to the corresponding Jefferson College of Health Sciences course.
- Science courses completed more than 10 years prior to enrollment may not be accepted for transfer.
- Verification through testing of some courses may be possible.
- Pathophysiology (BIO 300) may be used to validate anatomy and physiology and microbiology requirements with Program Director approval.
- Courses with a final grade less than "C" will not be accepted for transfer.

- Transfer credit will only be awarded from a regionally accredited institution.

- Each course selected for transfer must not duplicate a course already completed or a course required to be taken at Jefferson College of Health Sciences.

- Foreign transcripts must be evaluated and/or translated by a credential evaluation service specializing in international course-by-course evaluations or AACRAO (The American association of Collegiate Registrars and Admissions officers). This evaluation service must be a member of NACES (the National Association of Credential Evaluation Services) and a list of NACES evaluators is available on their website, *www.NACES.org*.

- Transfer credit will be placed on a student's transcript, within two weeks of receipt of the transcript by the Registrar.

- Students who wish to transfer major-specific courses (e.g. a nursing course) must petition the director of the pertinent major for evaluation of credit.

- Students may be asked to submit course descriptions and/or syllabi for evaluation of transfer credit.

- Current Jefferson College of Health Sciences students wishing to take coursework at another college or university are advised to obtain written permission from the Registrar to ensure that the coursework is transferable.

- The Registrar's Office will make the determination concerning the course and its application toward a Jefferson College of Health Sciences degree following consultation with the student's Program Director. Permission to transfer credit while matriculating at Jefferson will be based on an evaluation of the extent to which the course meets the objectives of the specific major.

- All decisions regarding transferability of course credit must be verified in writing by the Registrar.

- Grades awarded through transfer credit are not included in the computation of grade point average at Jefferson College of Health Sciences.

Transfer to Another Jefferson Program

Any student in good academic standing who wishes to transfer to another Jefferson program should submit a Change of Major form to the director of the new program for approval. Students are encouraged to contact the Program Director for program specific requirements.

If approved, the form must be signed by the new (admitting) program director and the exiting (leaving) program director. The form will then be sent to the Registrar's Office after all the signatures have been obtained.

Change of major forms must be completed and submitted to the Registrar's office two weeks before registration begins.

Withdrawal

Add/Drop
Students wishing to add or drop a class prior to the add/drop deadline should refer to the policies and procedures outlined under *Add/Drop* in this section of the catalog.

Administrative Withdrawal
Students wishing to withdraw from a class after the final withdrawal date (the last date to withdraw with a "W") must complete a request for administrative withdrawal, which is only authorized by the Dean for Academic Affairs for extenuating circumstances. Tuition is not reimbursed with an administrative withdrawal. Students are encouraged to consult the Bursar's Office at (540) 985-3585 and the Office of Financial Aid at (540) 985-8267 to determine the financial implications of their withdrawal.

The student must submit a request for administrative withdrawal in writing to the Dean for Academic Affairs. The request must be placed on the official form available on the Jefferson web site. Supplemental documentation is required.

The request must:

- identify circumstances beyond the student's control that have occurred after the withdrawal date (date must be specified) and prevent successful completion of the course. If such circumstances occurred prior to the withdrawal date, the request must also document the extenuating circumstances leading to a failure to withdraw from the course before the withdrawal date. Lack of awareness of the withdrawal date is not considered an extenuating circumstance.
- include documentation verifying all extenuating circumstances. Examples of acceptable documentation include a letter from a physician, lawyer, counselor, or other professional.

- indicate the last day of class attendance or online activity in an online course.
- be accompanied by a letter/e-mail from instructors of all courses involved in the request indicating their recommendation regarding the request.

The Dean will respond within five business days of receipt of the student's letter and written recommendation from all involved instructors. A written copy of this decision will be sent to the student with copies to the Registrar, Program Director, course instructor(s), and academic advisor. The decision of the Dean is final.

Directed Withdrawal
The College reserves the right to direct, after administrative evaluation, the withdrawal of any student whose conduct is not in accord with the ideals, policies, and standards of the College.

Students who have been directed to withdraw for other than health reasons may not be eligible to return to the College. Such students should contact the Dean for Student Affairs concerning eligibility for return.

Students with health problems, which in the assessment of the College substantially hinder participation in the educational process and/or may pose a risk to the College, other students, and/or patients, also will be directed to withdraw. Requests to return by those directed to withdraw for health reasons will be considered on an individual basis. The student must write a letter to the Dean for Student Affairs. This letter should contain appropriate documentation from a physician, physician assistant or nurse practitioner to justify consideration for re-enrollment.

If a student has not attended for three consecutive semesters, then the student must also reapply for admission.

Voluntary Withdrawal
Students who wish to drop one or more courses after the Add/Drop deadline may withdraw until the published College Calendar deadline (last day to withdraw from a class with a W). Students are required to submit to the Registrar a completed ***Withdrawal from Classes*** form containing the academic advisor's signature.

Students withdrawing from all courses during a term must make satisfactory arrangements before leaving the College. Additionally they must submit to the Registrar a ***Student Exit Form*** by the published deadline.

If receiving financial aid, the student must also complete an Exit Interview with the financial aid officer. Students withdrawing completely must clear all charges on their student accounts at the time of their Exit interview, complete all paperwork and exit surveys, and turn in their identification cards.

Undergraduate Program Descriptions

Bachelor of Science in Biomedical Sciences

Introduction

This program prepares graduates for entry into a variety of graduate programs. The successful student is well prepared to compete successfully for admission to professional schools in medicine, veterinary medicine, pharmacology, and physician assistant programs as well as graduate studies in science and biomedical sciences.

The biomedical sciences program offers individualized attention to students in the program. Small classes and personalized guidance by the faculty help each student achieve his or her goals in the biomedical field. Students participate in a research course and are encouraged to be involved in research within biomedical sciences.

Mission Statement

The mission of the Biomedical Sciences Program at Jefferson is to prepare graduates with a solid foundation in the natural sciences, to inspire lifelong learning, and to facilitate the acquisition of knowledge and skills necessary to enter graduate studies in biomedical or healthcare fields.

Program Outcomes

Upon completion of the Biomedical Sciences program, graduates will be able to

1. Demonstrate working contemporary knowledge of the natural sciences as they apply to biomedical disciplines;
2. Demonstrate the principles of diverse and critical thinking, skeptical inquiry, and the scientific approach to reasoning and problem solving;
3. Demonstrate an understanding of aspects of the natural sciences that underlie the basis of human wellness and disease;
4. Understand concepts of research design, data collection, data analysis, and interpretation of published research findings;
5. Understand functional mechanisms relevant to biomedical science within the range of the molecular to whole organisms;
6. Exhibit adequate preparation to be a competitive candidate for graduate biomedical studies or employment in the biomedical field;
7. Demonstrate effective communication (written, spoken, and technological) skills relevant to biomedical science and/or a career in biomedical science; and
8. Demonstrate quantitative proficiency relevant to the natural sciences and/or biomedical science.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the *Biomedical Sciences Handbook*. This handbook is available electronically on the program blackboard site and may be requested from the program secretary.

Program Progression

An unsatisfactory evaluation is a final grade report of "D" or "F" in any Biomedical Sciences course. This includes all courses with prefixes BIO, CHM. MTH, and PHY.

If a student in the Biomedical Sciences program receives a grade of D or F in a BIO, CHM, MTH, or PHY course, then the student will be placed on programmatic probation. The student will be required to repeat the course at Jefferson in order to improve the grade. When a satisfactory grade for the repeated course is earned, the programmatic probation will be removed and the course will no longer count toward the accumulation of unsatisfactory grades. **Please note that the accumulation of two unsatisfactory, uncorrected final grades (D or F) in any Biomedical Sciences program specific courses will result in dismissal from the Biomedical Sciences program.**

Students who have been dismissed from the Biomedical Sciences program may petition in writing for re-admission to the program after one semester of otherwise satisfactory performance. The petition for re-admission will be considered on an individual basis by the Program Director. (Students who petition for re-admission to a program from which they have been dismissed must go through the College's general admission procedure for re-admission to the College if they have not attended in 12 months or more.)

Biology Minor

Required:
• A minimum of 17 hours, 9 of which must be earned at Jefferson
• BIO 211/211L Anatomy and Physiology I
• BIO 212/212L Anatomy and Physiology II
• 9 hours of BIO courses at 300/400 level

Bachelor of Science in Biomedical Science
Program of Study (128 credit hours)

The following plan of study is a sample plan of study. The actual order in which classes are taken may vary depending on transfer credit and course availability.

1. A minimum of 40 hours of BIO credit are required, including 20 credits from upper division courses (300 or 400 level courses)
2. A minimum of 20 hours of CHM credit are required.

3. A minimum of 40 hours of 300 or 400 level credits are required.
4. IDS 302 will not be accepted.
5. A total of 128 hours are required for graduation.

PREFIX	COURSE TITLE	CREDITS
Semester 1: Fall		
BIO 101/101L	General Biology I	4
CHM 111/111L	General Chemistry I	4
ENG 111	Grammar and Composition I	3
GEN 101	Freshman Seminar	3
MTH 170	Precalculus with Trigonometry	3
	Total Credits:	**17**
Semester 2: Spring		
BIO 102/102L	General Biology II	4
CHM 112/112L	General Chemistry II	4
ENG 112	Grammar and Composition II	3
MTH 201	Calculus I	3
PHL 115	Foundations of Ethics	3
	Total Credits:	**17**
Semester 3: Fall		
BIO 230/230L	Comparative Anatomy	4
BUS 131	Computer Concepts and Applications	3
CHM 244/244L	Organic Chemistry I	4
MTH 265	Introduction to Health Science Statistics	3
PHY 201/201L	General Physics I	4
	Total Credits:	**18**
Semester 4: Spring		
BIO 240/240L	Comparative Physiology	4
BIO 215	Introduction to Scientific Literature	2
CHM 245/245L	Organic Chemistry II	4
IPE 200	Fundamentals of Teamwork	1
PHY 202/202L	General Physics II	4
PSY 101	Introduction to Psychology	3
	Total Credits:	**18**
Semester 5: Fall		
BIO 253/253L	Microbiology	4
BIO 312	Research Methods	3
CHM 360/360L	Biochemistry I	4
ELE	Elective	3
IPE 300	Interprofessional Healthcare Discovery & Collaboration	1
IDS 215	Bioethics	3
	Total Credits:	**18**
Semester 6: Spring		
BIO 300/400	BIO Elective	3

BIO 304	Genetics	3
BIO 300/400	Elective	3
CHM 361/361L	Biochemistry II	4
HUM	Humanities Requirement	3
	Total Credits:	**16**
Semester 7: Fall		
BIO 300/400	Elective	3
BIO/CHM 300/400	Elective	3
BIO/CHM 300/400	Elective	3
BIO 450	Current Issues	1
HPE 131	Physical Fitness and Wellness I	1
IPE 400	Interprofessional Healthcare Experiences	1
	Total Credits:	**12**
Semester 8: Spring		
BIO 300/400	Elective	3
BIO 410	Capstone Research	3
ELE	Elective	3
ELE 300/400	Elective	3
	Total Credits:	**12**
	Total Credits:	**128**
	Credits from Non-Science/Math Courses:	**34**
	Credits from Interprofessional Education Courses:	**3**
	Credits from Science/Math Courses:	**91**

Bachelor of Science in Emergency Services

Introduction

The Bachelor of Science degree in Emergency Services (BSES) prepares graduates for entry level practitioner and management positions in the field of emergency services. The Emergency Services profession has experienced dynamic changes since September 11, 2001. These changes have placed an increased emphasis on a well-educated and prepared workforce to meet the needs of both traditional and all-hazards responses. The program meets these challenges by providing a well-rounded core of general education courses and allows students to customize their plans of study to fit long-term career goals. Students enjoy a perfect blend of classroom, laboratory, clinical and field internship experiences in pursuit of their degree. The College offers three tracks to the BSES.

The **Paramedic/Firefighter Track** prepares students for fire and emergency medical services (EMS) positions and the skills for entry level management and leadership positions in the fire and EMS professions. Graduates will be eligible to sit for the national paramedic credentialing exam and complete numerous fire certifications.

The **Paramedic/Critical Care Track** prepares students for advanced patient care methodologies within the critical care ground and air transport environment. This track also prepares the student for entry level management and leadership positions in non-fire service based EMS agencies. Graduates will be eligible to sit for the national paramedic credentialing exam.

The **Degree Completion Track** is designed for students already working in the field of Emergency Services seeking to complete a bachelor's degree. Students are required to meet specific prerequisites in order to qualify for entry in to this track.

Program Accreditation, Approval, and Membership

National Accreditation

The Emergency Services program is accredited by the Commission on Accreditation of Allied Health Education Programs (*www.caahep.org*) upon the recommendation of the Committee on Accreditation for Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs
1361 Park Street
Clearwater, FL 33756
727-210-2350
www.caahep.org

CoAEMSP,
8301 Lakeview Parkway
Suite 111 - 312
Rowlett, TX 75099
Phone 214-703-8445
www.coaemsp.org

State Accreditation

The program is also accredited by the Virginia Department of Health, Office of Emergency Medical Services (VAOEMS), 1041 Technology Park Drive, Glen Allen, VA 23059-4500, Phone 1-800-523-6019

Program Mission

The mission of the Bachelor of Science in Emergency Services program is to prepare professionals who provide excellent patient care and emergency services while preparing to meet the challenges of the evolving field of emergency services.

Program Outcomes

Graduates of the Bachelor of Science in Emergency Services program will be able to:

1. provide care to patients of all ages and cultures,
2. advocate for patients,
3. serve in a designated National Incident Management System (NIMS) command or staff position during incident operations,
4. communicate effectively on an interprofessional team and with peers,
5. analyze data and assess findings to formulate an appropriate plan of action,
6. mitigate the hazard level of an incident scene,
7. assess the need for and implement public fire, injury, and illness prevention strategies,
8. evaluate emergency services related research,
9. exhibit caring, culturally competent behaviors in the delivery of services,
10. value life-long professional development,

11. participate in management and/or research processes in an emergency services organization, and

12. formulate a political action plan based on an emergency services issue.

Paramedic Minimum Performance Standards

The emergency services provider must be a confident leader who can accept the challenge and high degree of responsibility entailed in the position.

Mental Demands

The paramedic must have excellent judgment and be able to prioritize decisions and act quickly in the best interest of the patient, must be self-disciplined, able to develop patient rapport, interview hostile patients while maintaining a safe distance. The paramedic must be able to function independently at an optimum level in a non-structured environment that is constantly changing.

Communication Demands

The paramedic must be able to recognize and utilize communication unique to diverse multicultural groups and ages within those groups.

Physical Demands

Aptitudes required for work of this nature are good physical stamina, endurance, and body condition that would not be adversely affected by frequently having to walk, stand, lift, carry, and balance at times, in excess of 125 pounds. Motor coordination is necessary because of uneven terrain; the patient's, the paramedic's, and other workers' well-being must not be jeopardized.

Firefighter Minimum Performance Standard

Mental Demands

The firefighter must be able to think critically in a time-sensitive manner and solve complex problems during physical exertion in stressful, hazardous environments, including hot, dark, tightly enclosed spaces, that may be further aggravated by fatigue, flashing lights, sirens, and other distractions. They must also be able to function as an integral component of a team.

Physical Demands

Performing fire-fighting and rescue operations tasks requires extensive crawling, lifting and carrying heavy objects while wearing personal protective ensembles and self-contained breathing apparatus (SCBA), including working in extremely hot or cold environments for prolonged time periods. The firefighter is required to be able to tolerate increased respiratory workloads and may be exposed to toxic

fumes, irritants, particulates, biological (infectious) and non-biological hazards, and/or heated gases despite appropriate use of personal protective equipment (PPE). The firefighter may be required to climb six or more flights of stairs while wearing PPE and carry 20 – 40 lbs. of equipment. The firefighter must be able to search, find and rescue/drag or carry victims ranging from newborns up to adults weighing over 200 lb. (90 kg) to safety despite hazardous conditions and low visibility, advance water-filled hose lines approximately 150 ft. while negotiating obstacles, climb ladders, operate safely from heights, walk and crawl along uneven surfaces. The firefighter may also be required to function for prolonged periods of time with high physical exertion, without warm-up, scheduled rest periods, meals, and access to medication or hydration.

Communication Demands

The firefighter must have the ability to communicate (give and comprehend verbal orders) under emergency operations, while wearing personal protective ensembles and/or SCBA, and under conditions of high background noise, poor visibility, and drenching from hose lines and/or fixed protection systems (sprinklers).

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the *Emergency Services Student Handbook*. This handbook is provided to the student in writing as part of the programmatic orientation process.

Program Progression

The following requirements are placed on students for either continued progression in the program or eligibility to sit for national certification examination.

A. Final grade of “C” or better in all required Emergency Services courses.
B. Final grade of “C” or better in courses required for the respective track in order to sit for the National Registry of Emergency Medical Technician Paramedic (NRP) certification examination: BIO 211, BIO 212, and all English courses.
C. Score 80% or higher on the medication calculation test. The test is designed to measure basic math computation skills without assistance of a calculator.
D. Successful completion of a summative written and practical examination to sit for the NRP certification examination.
E. Successful completion of a summative oral examination with the Operational Medical Director to sit for the NRP examination.
F. Successfully meet all required clinical and field hours and skills competencies to sit for the NRP certification examination.

G. Successfully passing the NRP exam prior to beginning the senior year.

Advanced Standing

The Emergency Services program will only review currently certified Nationally Registered Paramedics for advanced standing and potential programmatic transfer credit. A current (non-expired) certification card must be submitted as proof of certification.

Certification Information

Upon successful completion of the program and by approval of the Operational Medical Director, students are eligible to sit for the National Registry EMT-Paramedic Exam**.**

The National Registry of Emergency Medical Technicians, Rocco V. Morando Building, 6610 Busch Blvd., P.O. Box 29233, Columbus, Ohio 43229.

Certifications are also earned from the following organizations:

American Heart Association, 7272 Greenville Ave, Dallas, TX 75231

National Association of Emergency Medical Technicians, 132-A East Northside Dr. Clinton, MS 39056

National Disaster Life Support Foundation, AF-2044, 1120 15th Street Augusta, GA 30912

U.S. Fire Administration, 16825 S. Seton Ave., Emmitsburg, MD 21727 Virginia Department of Fire Programs, 1005 Technology Park Drive, Glen Allen, Virginia 23059

Virginia Department of Fire Programs (VDFP), 1005 Technology Park Drive, Glen Allen, Virginia, 23059

Virginia Fire Marshal Academy, 1005 Technology Park Drive, Glen Allen, Virginia 23059

Bachelor of Science in Emergency Services
Paramedic/Critical Care Track
Program of Study (120 credit hours)
Courses must be taken sequentially in the order presented.
Forty (40) credit hours of upper division courses must be completed at Jefferson.

PREFIX	COURSE TITLE	CREDITS
SEMESTER 1: FALL		
GEN 101	Freshman Seminar	3
ENG 111	Grammar and Composition I	3
PHL 115	Foundations of Ethics	3
BUS 131	Computer Applications	3
EMS 100L	Introduction to Emergency Services Lab	2
HPE 131	Physical Fitness & Wellness I	1
	Total Credits	**15**
SEMESTER 2: SPRING		
ENG 112	Grammar and Composition II	3
BIO 211/211L	Anatomy & Physiology I	4
MTH 165	College Algebra	3
EMS 107	Principles of Emergency Services	1
EMS 112/112L	Patient Assessment & Respiratory Management w/Lab	3
EMS 151C	Clinical Practice I	1
	Total Credits	**15**
SEMESTER 3: FALL		
HUM ELE	Humanities Elective	3
BIO 212/212L	Anatomy & Physiology II w/Lab	4
IPE 200	Fundamentals of Teamwork	1
EMS 160C	Clinical Practice II	2
EMS 161I	Field Internship I	1
EMS 145/145L	Cardiac Emergencies w/Lab	3
EMS 210	Prehospital Pharmacology	3
	Total Credits	**17**
SEMESTER 4: SPRING		
PSY ELE	Psychology Elective	3
IDS 215	Bioethics	3
EMS 271I	Field Internship II	1
EMS 272C	Clinical Practice III	2
EMS 230/230L	Obstetrics & Pediatrics Emergencies w/Lab	2
EMS 254/254L	Trauma Emergencies w/Lab	2
	Total Credits	**13**

SEMESTER 5: Fall		
EMS 371C	Clinical Practice IV	2
EMS 371I	Field Internship III	2
EMS 301L	Emergency Operations Lab	2
EMS 366/366L	Medical Emergencies w/Lab	4
BIO 253/BIO 253L	Microbiology w/Lab	4
	Total Credits	**14**
SEMESTER 6: Spring		
IPE 300	Interprofessional Healthcare Discovery and Collaboration	1
EMS 381I	Field Internship IV	5
EMS 306L	National Examination Review Lab	2
EMS 390	Political & Legal Foundations of Emergency Services	3
BIO 300	Pathophysiology	3
	Total Credits	**14**
SEMESTER 7: Fall		
EMC 345	Critical Care Medicine I	3
EMC 350	Critical Care Pharmacology	3
EMS 360	Educational Methods for Emergency Services	3
IDS 453	Research	3
MTH 301	Statistics for Healthcare	3
EMS 430	Senior Practicum Proposal	1
	Total Credits	**16**
SEMESTER 8: Spring		
IPE 400	Interprofessional Healthcare Experiences	1
EMC 445	Critical Care Medicine II	3
EMC 422C	Critical Care Clinical	3
EMS 490	Senior Practicum	3
EMS 440	Current Issues in Emergency Services Management	3
EMS ELE	300/400 Elective	3
	Total Credits	**16**
	Credits from ES Courses	**68**
	Credits from Non-ES Courses	**49**
	Credits from Interprofessional Courses	**3**
	TOTAL CREDITS FOR DEGREE	**120**

Bachelor of Science in Emergency Services
Paramedic/Firefighter Track (121 credit hours)
Courses must be taken sequentially in the order presented.
Forty (40) credit hours of upper division courses must be completed at Jefferson.

PREFIX	COURSE TITLE	CREDITS
SEMESTER 1: FALL		
GEN 101	Freshman Seminar	3
ENG 111	Grammar and Composition I	3
PHL 115	Foundations of Ethics	3
BUS 131	Computer Applications	3
EMS 100L	Introduction to Emergency Services Lab	2
HPE 131	Physical Fitness & Wellness I	1
	Total Credits	**15**
SEMESTER 2: SPRING		
ENG 112	Grammar and Composition II	3
BIO 211/211L	Anatomy & Physiology I	4
MTH 165	College Algebra	3
EMS 107	Principles of Emergency Services	1
EMS 112/112L	Patient Assessment & Respiratory Management w/Lab	3
EMS 151C	Clinical Practice I	1
	Total Credits	**15**
SEMESTER 3: FALL		
HUM ELE	Humanities Elective	3
BIO 212/212L	Anatomy & Physiology II w/Lab	4
IPE 200	Fundamentals of Teamwork	1
EMS 160C	Clinical Practice II	2
EMS 161I	Field Internship I	1
EMS 145/145L	Cardiac Emergencies w/Lab	3
EMS 210	Prehospital Pharmacology	3
	Total Credits	**17**
SEMESTER 4: SPRING		
PSY ELE	Psychology Elective	3
IDS 215	Bioethics	3
EMS 271I	Field Internship II	1
EMS 272C	Clinical Practice III	2
EMS 230/230L	Obstetrics & Pediatrics Emergencies w/Lab	2
EMS 254/254L	Trauma Emergencies w/Lab	2
EMF 350	Fire Dynamics	3
	Total Credits	**16**

SEMESTER 5: Fall		
IPE 300	Interprofessional Healthcare Discovery and Collaboration	1
EMS 371C	Clinical Practice IV	2
EMS 371I	Field Internship III	2
EMS 301L	Emergency Operations Lab	2
EMS 366/366L	Medical Emergencies w/Lab	4
EMS 370	Community Risk Reduction for Emergency Services	3
	Total Credits	**14**
SEMESTER 6: Spring		
EMS 381I	Field Internship IV	5
EMS 306L	National Examination Review Lab	2
EMS 390	Political & Legal Foundations of Emergency Services	3
EMS 400	Advanced Principles of Safety and Survival	2
EMF 305	Fire Related Human Behavior	3
	Total Credits	**15**
SEMESTER 7: Fall		
IPE 400	Interprofessional Healthcare Experiences	1
MTH 301	Statistics for Healthcare	3
EMF 420	Applications of Fire Research	3
EMS 430	Senior Practicum Proposal	1
EMS 425	Personnel Management for Emergency Services	3
EMF 390I	Fire Internship	3
	Total Credits	**14**
SEMESTER 8: Spring		
EMF 375	Fire Prevention Organization and Management	3
EMS 480	Emergency Services Administration	3
EMS 440	Current Issues in Emergency Services Management	3
EMS 490	Senior Practicum	3
EMS 450	Disaster Planning and Control	3
	Total Credits	**15**
	Credits from ES Courses	79
	Credits from Non-ES Courses	39
	Credits from Interprofessional Courses	3
	TOTAL CREDITS FOR DEGREE	**121**

Bachelor of Science in Emergency Services: Degree Completion Track
Program of Study (121 Credit hours)
Forty (40) credit hours of upper division courses must be completed at Jefferson.

PREFIX	COURSE TITLE	CREDITS
Required for Admission to the Program		
	Previous Coursework	42
Prior to beginning programmatic coursework:		
ENG 111	Grammar and Composition I (or equivalent)	3
ENG 112	Grammar and Composition II (or equivalent)	3
MTH 165	College Algebra (or equivalent)	3
CHM/BIO/SCI	Natural Science Elective	3
PSY or SOC	Social Sciences Elective	3
BUS 131	Business Applications (or equivalent)	3
	Total Credits	**60**
SEMESTER 1: FALL		
IPE 200	Fundamentals of Teamwork	1
EMS 370	Community Risk Reduction for Emergency Services	3
IDS 255	Introduction to Library Research	1
MTH 301	Statistics for Healthcare	3
HUM ELE	Humanities Elective	3
PHL 115	Foundations of Ethics	3
	Total Credits	**14**
SEMESTER 2: SPRING		
IPE 300	Interprofessional Healthcare Discovery and Collaboration	1
EMS 390	Political & Legal Foundations of Emergency Services	3
IDS 215	Bioethics	3
IDS 453	Research	3
EMS ELE	ES Elective 300/400	3
ELE	Elective	3
	Total Credits	**16**
SEMESTER 3: FALL		
IPE 400	Interprofessional Healthcare Experiences	1
EMS 425	Personnel Management for Emergency Services	3
EMS 430	Senior Practicum Proposal	1
EMS ELE	ES Elective 300/400	3
ELE	Elective	3
ELE	Elective	3
	Total Credits	**14**
SEMESTER 4: SPRING		
EMS 480	Emergency Services Administration	3
EMS 400	Advanced Principles of Safety and Survival	2
EMS 440	Current Issues in Emergency Services	3
EMS 450	Disaster Planning and Control	3
EMS 490	Senior Practicum	3
ELE	Elective	3
	Total Credits	**17**
	Credits from Previous College	**60**
	Credits from ES Courses	**33**
	Credits from Interprofessional Courses	**3**

	Credits from Non-ES Courses	**25**
	TOTAL CREDITS FOR DEGREE	**121**

Bachelor of Science in Health and Exercise Science

Program Description

The Health and Exercise Science (HES) Program at the Jefferson College of Health Sciences is a four-year, Bachelor of Science degree program. The blend of classroom, laboratory, and clinical components is designed to prepare students for careers in Health and Exercise Science and/or post-baccalaureate education.

A Bachelor of Science degree in Health and Exercise Science from Jefferson College of Health Sciences prepares graduates for careers in college, clinical, corporate, and commercial settings, including personal fitness consulting/training, cardiopulmonary rehabilitation, hospital and/or corporate wellness, community health and obesity prevention, and industrial rehabilitation/worksite fitness. Students enrolled in the program will have the flexibility to develop knowledge, skills, and abilities to pursue post-baccalaureate education in health-related programs.

Program Philosophy

The educational philosophy of the HES program is based on the concepts of learner-centered teaching, experiential learning and academic excellence. The HES program features a complementary relationship between general education and professional studies, between academic and personal development, between service and individual growth, and between the Jefferson campus and the larger community.

The overarching vision of HES is to help people establish and maintain physically active, healthy lifestyles. This includes helping people develop the essential beliefs, attitudes, knowledge, and skills associated with maintaining lifelong physical activity habits that promote *individual responsibility* toward optimal health and fitness. Additionally, and equally important, is helping people to develop *collective efficacy*, communities of learned citizens that value active living, are confidence in their ability to live actively, and are committed to our transformation to a physically active society. Physically active citizens behave in ways that recognize and support societal changes and policies aimed at building healthy, supportive environments that are conducive to the practice of safe, effective, and inclusive physical activity and health behaviors that are available to *all* people.

Program Mission

The mission of the Health and Exercise Science program is to provide an academic environment that will enable students to develop knowledge, skills, and abilities (KSAs) in the areas of health and exercise science. Through a focused curriculum, faculty-student interactions, and clinical opportunities, graduates of the Health and Exercise Science program will cultivate the competencies and

proficiencies required for entry-level professional practice or continuation to graduate-level education.

Program Outcomes

Graduates of the Health and Exercise Science program will be able to

1. apply biophysical and behavioral theory and research from health and exercise science to critically analyze health, exercise, and fitness processes, behaviors, and outcomes,

2. demonstrate integration of health and exercise science scholarship into clinical practice through
   - assessment, design, and implementation of individual and group exercise programs and fitness activities for persons of all ages who are apparently healthy and those with controlled disease,
   - application of skills in evaluating health behaviors and risk factors, conducting fitness assessments, writing appropriate exercise prescriptions, and motivating individuals to modify negative health habits and maintain positive lifestyle behaviors for health promotion,

3. demonstrate competence, professionalism, cultural sensitivity, and a commitment to life-long learning as a leader of health and fitness programs in college, clinical, corporate and/or commercial settings in which clients participate in health promoting and fitness-related activities,

4. develop knowledge, skills, and abilities requisite for post-baccalaureate education in health and exercise science, other medical/allied health fields, and/or professional certification/career placement, and

5. complete minimally 400 hours of practical experience in supervised clinical exercise program settings.

Minimum Performance Standards
Client safety and provision of quality services is paramount. Students in the Health and Exercise Science Program are expected to demonstrate:

Observation Skills:
- Ability to observe a client's response to programming, changes in client's physical condition, body alignment, exercise technique, gait, posture and functional abilities, interpret instrument panels/displays, assess the environment, and gather information from data sources and professional literature.

Communication Skills:
- Ability to communicate clearly, effectively and efficiently in English, both orally and in writing, with patients and their families, other health care providers, peers, faculty, community or other professional groups.

- Ability to use nonverbal behavior to effectively and appropriately communicate messages.
- Ability to recognize, interpret and respond to the nonverbal behavior of others.
- Ability to read at a competency level necessary to safely and efficiently carry out the essential functions of a task.
- Ability to document clearly, legibly and using appropriate scholarly and professional terminology.

Motor Skills:

- Demonstrate satisfactory movement skills necessary to model and instruct appropriate exercise technique.
- Demonstrate satisfactory physical conditioning and motor ability necessary to assure safety when working with clients.
- Demonstrate motor control necessary to manipulate/operate equipment controls and use assessment tools.

Intellectual Conceptual Skills:

- Ability to collect, interpret and assess data about clients.
- Ability to prioritize multiple tasks, integrate information and make decisions.
- Ability to problem-solve.
- Demonstrate critical thinking skills sufficient for safe and sound clinical judgment and discretion.
- Ability to apply knowledge of health and exercise interventions in a variety of settings and situations.
- Ability to recognize and respond appropriately to emergency and potentially hazardous situations.

Behavior:

- Ability to interact appropriately with individuals of all ages, genders, races, socio-economic, religious, lifestyle and cultural backgrounds.
- Ability to cope effectively with the stresses of academic demands and clinical situations.
- Ability to work collaboratively with HES students, faculty, and clinical staff.
- Demonstrate emotional health and stability required to fully utilize intellectual capabilities, demonstrate good judgment and render services required in diverse health and exercise settings.

The HES Program faculty will assist a student's accomplishment of these technical standards, but the responsibility for meeting KSAs rests with the student.

If a student cannot demonstrate the ability to meet the technical standards, it is the responsibility of the student to request appropriate accommodations. The College will determine whether it agrees that the student can meet the technical standards with reasonable accommodation. This includes a review as to whether

the accommodations requested are reasonable, taking into account whether accommodations would jeopardize clinician or client safety, the institution, or the educational process of the student, including all coursework, and clinical experiences deemed essential for graduation.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the Health and Exercise Science Program student handbook. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

Program Progression

HES courses (with a HES prefix) should be taken in the year sequence listed. Students must successfully complete lower (200) level courses before advancing to the next (300) level. The student must achieve a minimum grade of ***"C"*** in all professional courses and BIO 211 and 212, as well as meeting prerequisite or co-requisite requirements in order to advance to the next semester. Please refer to the catalog course descriptions for prerequisite and co-requisite requirements.

Licensing Information

Health and Exercise Science program graduates will be eligible to pursue certifications with the American College of Sports Medicine, National Strength and Conditioning Association and other organizations requiring a Bachelor's degree and clinical experience.

Exercise Science Minor

Students who are majoring in disciplines other than Health and Exercise Science (HES) may choose to minor in Exercise Science. The following are the requirements for an Exercise Science minor.

Required
- Minimum 15 credit hours, of which 9 must be earned at Jefferson
- HES 201 Foundations of Health and Exercise Science (1)
- HES 221 Group Exercise Activities (1) and HPE 221 Aerobic Exercise Skills (1)
- HES 222 Muscle Fitness Activities (1) and HPE 222L Resistance Training Skills (1)
- HES 302 Exercise Physiology (4)
- HES 334/334L Kinesiology (3)
- 3 hours HES courses at the 300/400 level (3)

Health Promotion Minor

Students who are majoring in disciplines other than Health and Exercise Science (HES) may choose to minor in Health Promotion. The following are the requirements for a Health Promotion minor.

Required

- Minimum 16 credit hours, of which 9 must be earned at Jefferson
- IDS 355 Introduction to Public Health (4)
- HLT 301 Nutrition (3)
- PSY 230 Positive Psychology (3)
- HES 365 Psychosocial Aspects of Exercise (3)
- HES 452 Community Health and Physical Activity Promotion (3)

Bachelor of Science in Health and Exercise Science
Program of Study (122 credit hours)
HES classes must be taken sequentially in the order presented.

PREFIX	COURSE TITLE	CREDITS
Semester 1		
BUS 131	Computer Concepts & Applications	3
CHM 110/110L or 111/111L	Chemistry for Health Sciences or General Chemistry I	4
ENG 111	Grammar & Composition I	3
GEN 101	Freshman Seminar	3
PSY 101	Introduction to Psychology	3
	Total Credits:	**16**
Semester 2		
ELE	Elective	1
ENG 112	Grammar & Composition II	3
PHL 115	Foundations of Ethics	3
MTH 165	College Algebra (or above)	3
PSY 220	Life Span Development	3
SOC 213	Social Issues in Healthcare Delivery	3
	Total Credits:	**16**
Semester 3		
BIO 211/211L	Anatomy & Physiology I	4
ELE	Elective	3
ELE (ENG)	Elective (ENG 325 or ENG 220)	3
HES 201	Foundations of Health and Exercise Science	1
HES 221	Group Exercise Activities	1
HPE 221	Aerobic Exercise Skills	1
PSY 230 or PSY 240	Positive Psychology or Abnormal Psychology	3
	Total Credits:	**16**
Semester 4		
BIO 212/212L	Anatomy & Physiology II	4
ELE (HUM)	Humanities Elective	3

HES 272	Injury Prevention and Post Rehabilitative Exercise	2
HES 222	Muscle Fitness Activities	1
HPE 222L	Resistance Training Skills	1
IDS 112	Basic First Aid & CPR	1
IPE 200	Fundamentals of Teamwork	1
MTH 301	Statistics (or MTH 210)	3
	Total Credits:	**16**
Semester 5		
ELE	Elective	3
HES 302/302L	Exercise Physiology	4
HES 311C	Clinical I	2
HES 365	Psychosocial Aspects of Exercise	3
HLT 301	Nutrition	3
	Total Credits:	**15**
Semester 6		
HES 312C	Clinical II	2
HES 323	Concepts of Strength and Conditioning	3
HES 334/334L	Kinesiology	3
HES 345/345L	Exercise Testing and Prescription	3
IDS 453	Research Methods	3
IPE 300	Interprofessional Healthcare Discovery and Collaboration	1
	Total Credits:	**15**
Semester 7		
ELE	Electives	3
HES 411C	Clinical III	2
HES 422	Organization and Administration in HES	3
HES 426C OR HES 427C	Professional Fieldwork in HES 426C or HES 427C: Scholarly Fieldwork in Health and Exercise Science	2
HES 445	Program Development for the Aging and Special Populations	3
IPE 400	Interprofessional Healthcare Experience	1
	Total Credits:	**14**
Semester 8		
ELE	Electives	4
HES 413C	Clinical IV	4
HES 452	Community Health and Physical Activity Promotion	3
HES 485	Professional Seminar in HES	3
	Total Credits:	**14**
	Total Credits	**122**
	Credits from Non-Major Courses	**68**
	Credits from Interprofessional Education Courses:	**3**
	Credits from Major Courses	**51**

Bachelor of Science in Health and Exercise Science (PTA/OTA Track)
Program of Study (122 credit hours)
HES classes must be taken sequentially in the order presented.

PREFIX	COURSE TITLE	CREDITS
Validation of previous PTA or OTA clinical coursework		10
Semester 1		
BUS 131	Computer Concepts & Applications	3
CHM 111/111L	General Chemistry I	4
ENG 111	Grammar & Composition I	3
GEN 101	Freshman Seminar	3
PSY 101	Introduction to Psychology	3
	Total Credits:	**16**
Semester 2		
ELE	Elective	1
ENG 112	Grammar & Composition II	3
IDS 112	Basic First Aid & CPR for Healthcare Providers	1
PHL 115	Foundations of Ethics	3
MTH 165	College Algebra (or above)	3
PSY 220	Life Span Development	3
SOC 213	Social Issues in Healthcare Delivery	3
	Total Credits:	**17**
Semester 3		
BIO 211/211L	Anatomy & Physiology I	4
ELE (ENG)	Elective (ENG 325 or ENG 220)	3
HES 201	Foundations of Health and Exercise Science	1
HES 221	Group Exercise Activities	1
HPE 221	Aerobic Exercise Skills	1
PSY 230	Positive Psychology	3
	Total Credits:	**13**
Semester 4		
BIO 212/212L	Anatomy & Physiology II	4
ELE (HUM)	Humanities Elective	3
HES 272	Injury Prevention and Post Rehabilitative Exercise	2
HES 222	Muscle Fitness Activities	1
HPE 222L	Resistance Training Skills	1
IPE 200	Fundamentals of Teamwork	1
MTH 301	Statistics (or MTH 210)	3
	Total Credits:	**15**
Semester 5		
ELE	Elective	3
HES 302/302L	Exercise Physiology	4
HES 365	Psychosocial Aspects of Exercise	3
HLT 301	Nutrition	3
	Total Credits:	**13**

PREFIX	COURSE TITLE	CREDITS
Semester 6		
HES 323	Concepts of Strength and Conditioning	3
HES 334/334L	Kinesiology	3
HES 345/345L	Exercise Testing and Prescription	3
IDS 453	Research Methods	3
IPE 300	Interprofessional Healthcare Discovery and Collaboration	1
	Total Credits:	**13**
Semester 7		
ELE	Electives	3
HES 422	Organization and Administration in HES	3
HES 426C OR HES 427C	Professional Fieldwork in HES 426C or HES 427C: Scholarly Fieldwork in Health and Exercise Science	2
HES 445	Program Development for the Aging and Special Populations	3
IPE 400	Interprofessional Healthcare Experience	1
	Total Credits:	**12**
Semester 8		
ELE	Electives	7
HES 452	Community Health and Physical Activity Promotion	3
HES 485	Professional Seminar in HES	3
	Total Credits:	**13**
	Total Credits	**122**
	Credits from Non-Major Courses	**68**
	Credits from Interprofessional Education Courses:	**3**
	Credits from Major Courses	**51**

Bachelor of Science in Health and Exercise Science
Program of Study Non-Clinical Track(122 credit hours)

PREFIX	COURSE TITLE	CREDITS
Semester 1: Fall		
BUS 131	Computer Concepts & Applications	3
CHM 110/110L or CHM 111/111L	Chemistry for Health Sciences or General Chemistry	4
ENG 111	Grammar and Composition I	3
GEN 101	Freshman Seminar	3
PSY 101	Introduction to Psychology	3
	Total	16
Semester 2: Spring		
ENG 112	Grammar and Composition II	3
MTH 165	College Algebra	3
PHL 115	Foundations in Ethics	3
PSY 220 or 120	Lifespan Develop. or Introductory & Develop. Psych.	3 or 4
SOC 213	Social Issues in Healthcare	3
	Total	15-16
Semester 3: Fall		
BIO 211/211L	Anatomy & Physiology I w/Lab	4
ENG 220 or 325	Public Speaking or Communication in Professional Practice	3
ELE HUM	Humanities Elective	3
PYS 230 or 240	Positive Psychology or Abnormal Psychology	3
HES 201	Foundations of Health & Exercise Science	1
HES 221	Group Exercise Activities	1
HPE 221L	Aerobic Exercise Skills	1
	Total	16
Semester 4: Spring		
BIO 212/212L	Anatomy & Physiology II w/Lab	4
ELE HUM	Humanities Elective	3
IDS 112	First Aid & CPR for Healthcare Providers	1
IPE 200	Fundamentals of Teamwork	1
MTH 210 or 301	Introduction to Statistics or Statistical Methods for Healthcare	3
HES 222	Muscle Fitness Activities	1
HES 272	Injury Prevention and Post-Rehabilitative Exercise	2
HPE 222L	Resistance Training Skills	1
	Total	16

PREFIX	COURSE TITLE	CREDITS
Semester 5: Fall		
HLT 301	Nutrition	3
IDS 307 or SOC 301	Topics in Interdisciplinary Healthcare or Race & Ethnicity in Healthcare	3
ELE	Elective	3
HES 302/302L	Exercise Physiology w/Lab	4
HES 365	Psychosocial Aspects of Exercise	3
	Total	16
Semester 6: Spring		
ELE	Elective	1
IDS 372	Spirituality in Healthcare	3
IDS 453	Research Methods	3
IPE 300	Interprofessional Healthcare Discovery & Collaboration	1
HES 323	Concepts of Strength and Conditioning	3
HES 345/345L	Exercise Testing and Prescription	3
	Total	14
Semester 7: Fall		
ELE	Elective	3
IDS 450	Global Health Issues	3
IPE 400	Interprofessional Healthcare Experiences	1
HES 422	Organization and Administration in HES	3
HES 426C or HES 427C	Professional Fieldwork in HES or Scholarly Fieldwork in HES	2
HES 445	Program Development for Aging & Special Populations	3
	Total	15
Semester 8: Spring		
ELE	Elective	4
HCM 301	US Healthcare Systems	4
HES 452	Community Health and Physical Activity Promotion	3
HES 485	Professional Seminar in HES	3
	Total	14
	Credits from Non-HES courses	**87-88**
	Credits from Interprofessional Education Courses:	**3**
	Credits from HES courses	**34**
	Total Credits:	**122-123**

Bachelor of Science in Health Psychology

Introduction

The Health Psychology baccalaureate program offers a well-rounded education in psychological theory and research, as well as a specialization in health psychology. Health psychology identifies links between people's well-being and how people feel, think, and behave. It seeks to understand the impact of physical factors on human behavior and to work to improve health and prevent illness with biopsychosocial interventions.

The Jefferson Health Psychology program offers the flexibility of customization to fit the student's long-term career goals. Students who graduate with a Bachelor of Science degree in Health Psychology are prepared for graduate study in psychology and related disciplines, including professional graduate programs such as physician assistant and occupational therapy.

Program Mission

The mission of the Health Psychology program is to prepare, within a scholarly environment, ethical, knowledgeable, competent, and caring graduates who possess a firm foundation of psychological principles and their application to issues of health and wellness; are well positioned for graduate study or entry level employment in the health professions; and have a solid grounding in critical thinking, scientific inquiry, and communication skills.

Program Outcomes

Upon completion of the program, students will demonstrate the knowledge, skills, and values consistent with the science and application of psychology, as adapted from the *American Psychological Association Guidelines for the Undergraduate Psychology Major* (APA, 2007). These include:

1. **Knowledge Base of Psychology**: Students will evaluate the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.

2. **Research Methods in Psychology**: Students will engage in and evaluate research methods in psychology, including research design, data analysis, and interpretation.

3. **Critical Thinking Skills in Psychology**: Students will evidence critical thinking, skeptical inquiry, and the scientific approach to problem solving and reasoning related to behavior and mental processes through evaluative processes.

4. **Application of Psychology**: Students will demonstrate an understanding of the application of psychological principles to personal, social, organizational, and community issues.

5. **Health Psychology Focus**: Students will evaluate the psychological and social determinants of health and wellness.

6. **Personal Development**: Students will demonstrate insight into their own behavior and mental processes and apply effective strategies for behavior change techniques for the purpose of achieving healthy lifestyles.

7. **Values in Psychology**: Students will be able to weigh evidence, tolerate ambiguity, act ethically, and behave consistent with these and other values included in the APA Code of Ethics.

8. **Career Planning and Development**: Students will emerge from the program able to evaluate ideas about how to implement their psychological knowledge, skills, and values in occupational pursuits in a variety of settings.

9. **Preparation for Graduate School**: Students will be well positioned for graduate study in Psychology.

10. **Sociocultural and International Awareness:** Students will recognize, understand, and respect the complexity of sociocultural and international diversity.

11. **Communication Skills:** Students will be able to communicate effectively in a variety of formats.

12. **Information and Technological Literacy**: Students will demonstrate information competence and the ability to use computers and other technology for many purposes.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the *Health Psychology Student Handbook*. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

Program Progression

Health Psychology students are required to obtain a “C” or better in all program-specific (PSY) classes and MTH 301: Statistical Methods for Healthcare.

Psychology Minor

Students who are majoring in disciplines other than Health Psychology may choose to minor in Psychology. The following are the requirements for a psychology minor.

Required

- 15 credit hours, of which 9 must be earned at Jefferson
- PSY 101 Introduction to Psychology (or PSY 120 Introductory and Developmental Psychology) (3 credit hours)
- Psychology course work at any level (3 credit hours)
- Any 300/400 level Research Methods course (3 credit hours)
- Psychology 300/400 level* (6 credit hours)

  *Note: Students wishing to take a Psychology course with a lab must take PSY 310/310L Research Methods in Psychology (4 credit hours) will be a prerequisite.

Bachelor of Science in Health Psychology
Program of Study (120 credit hours)

The following plan of study is a sample plan of study; the actual order in which classes are taken may vary.

PREFIX	COURSE TITLE	CREDITS
Semester 1: Fall		
ELE	ELECTIVE	3
BUS 131	Computer Concepts and Applications	3
ENG 111	Grammar and Composition I	3
GEN 101	Freshman Seminar	3
PSY 101	Introduction to Psychology	3
PSY 110	Introduction to the Field of Health Psychology	1
	Total Credits:	**16**
Semester 2: Spring		
ELE	ELECTIVE	3
ENG 112	Grammar and Composition II	3
PHL 115	Foundations of Ethics	3
MTH 165	College Algebra	3
PSY 240	Abnormal Psychology	3
	Total Credits:	**15**
Semester 3: Fall		
CHM 110/110L	Chemistry for Health Sciences	4
IPE 200	Fundamentals of Teamwork	1
MTH 265	Introduction to Health Sciences Statistics	3
PSY 230	Positive Psychology	3
PSY 250	Health Psychology	3
	Total Credits:	**14**
Semester 4: Spring		
ENG 220	Public Speaking	3

ENG 325	Communication in Professional Practice	3
IDS 254	Introduction to Research Design	3
PSY 235	Social Psychology of Health & Wellness	3
ELE (HUM)	Humanities Elective	3
	Total Credits:	**15**
Semester 5: Fall		
BIO 211/211L	Anatomy & Physiology I	4
IDS 215 SOC 213	Bioethics **OR** Social Issues in Healthcare Delivery	3
IDS 308	Critical Thinking	3
PSY 300	Career Options in Psychology	1
PSY 340/L	Health Behavior Change Methods & Laboratory	4
	Total Credits:	**15**
Semester 6: Spring		
IPE 300	Interprofessional Healthcare Discovery & Collaboration	1
PBH 355	Principles in Public Health	3
PSY 215	Introductory Fieldwork	2
PSY 215C	Introductory Fieldwork Placement	1
PSY 350/L	Health Psychology & Laboratory	4
PSY 380/L	Learning & Memory & Laboratory	4
	Total Credits:	**16**
Semester 7: Fall		
IPE 400	Interprofessional Healthcare Experiences	1
PSY 400	History& Systems of Psychology	3
PSY 401	Senior Research I	3
PSY 415	Senior Fieldwork I	2
PSY 415C	Field Placement I	2
PSY 470	Neuroscience	3
	Total Credits:	**14**
Semester 8: Spring		
PSY 402	Senior Research II	3
PSY 425	Senior Fieldwork II	2
PSY 425C	Field Placement II	2
PSY 445	Community Psychology	3
ELE	Elective	3
ELE	Elective	2
	Total Credits:	**15**
	Total Credits	**120**
	Credits from non-Health Psychology Courses	**48**
	Credits from Interprofessional Education Courses:	**3**
	Credits from Health Psychology Courses	**55**

Bachelor of Science in Health Sciences

Program Description

The Bachelor of Science in Health Sciences (BSHS) is a foundational degree for the student seeking to complete a Bachelors degree. The program serves students seeking entry into undergraduate or graduate programs in a specific healthcare profession, or educational enhancement for individuals wishing to advance their education/career.

Program Mission

The mission of the Health Sciences program is to provide a solid foundation of healthcare related coursework for students seeking to either advance their prior educational accomplishments or prepare those seeking a post-baccalaureate or graduate level healthcare degree.

Program Outcomes

Upon completion of the BHS program, the graduate will:

1. Identify and discuss theories and practices relevant to professional practice.
2. Identify and distinguish between developments and advances relevant professional practice.
3. Examine the role of the clinician as a member of the inter-professional healthcare team.
4. Demonstrate the ability to apply legal and ethical practice, and decision-making in professional practice.
5. Demonstrate effective written communication skills in professional practice.
6. Apply problem solving, critical thinking, and decision making skills based on empirical evidence and contextual frameworks.
7. Apply research methods and findings through scientific inquiry and collaborative teamwork.

Academic Policies

Students are expected to follow the policies published in the Jefferson Catalog and Jefferson Student Handbook.

Program Progression

All students must complete the requirements for at least one minor offered at Jefferson. The student must achieve a minimum grade of "C" in all HSC courses (HSC prefix), PBH 355, and HCM 301. The student must complete two semesters of Service Learning in Community Health. The student must also complete a minimum of 25% of the Health Sciences program of study at Jefferson.

Bachelors of Science in Health Sciences (121 credit hours)

The following is a sample plan of study. The actual order in which classes are taken may vary and students are encouraged to work closely with their faculty advisor to develop a specific plan of study.

Students who are transferring credits from other institutions may be able to use these credits as their electives. Transfer of credit is subject to the Transfer Credit Policy.

PREFIX	COURSE TITLE	CREDITS
Semester 1		
GEN 101	Freshman Seminar	3
ENG 111	Grammar & Composition I	3
MTH 165	College Algebra	3
PSY 101	Introduction to Psychology	3
ELE	Elective	3
	Total	**15**
Semester 2		
ENG 112	Grammar & Composition II	3
PHL 115	Foundations of Ethics	3
ELE	Electives	9
	Total	**15**
Semester 3		
BIO 211/211L	Anatomy and Physiology I	4
ELE HUM	Humanities Elective	3
ELE PSY	Psychology Elective	3
ELE SOC	Sociology Elective	3
ELE	Elective	3
	Total	**16**
Semester 4		
BIO 212/212L	Anatomy and Physiology II	4
IPE 200	Fundamentals of Teamwork	1
MTH 265	Introduction to Health Sciences Statistics	3
ELE	Electives	6
	Total	**14**
PREFIX	**COURSE TITLE**	**CREDITS**
Semester 5		
HCM 301	US Healthcare System	4
HLT 301	Nutrition	3
MINOR	Minor Courses	3
ELE	Electives	6
	Total	**16**
Semester 6		
IDS 453	Research Methods	3
IPE 300	Interprofessional Healthcare Discovery & Collaboration	1
PBH 355	Principles of Public Health	4

MINOR	Minor Courses	3
ELE	Electives	3
	Total	**14**
PREFIX	**COURSE TITLE**	**CREDITS**
Semester 7		
HSC 490	Service Learning in Community Health I	3
IPE 400	Interprofessional Healthcare Experiences	1
MINOR	Minor Courses (300-400)	6
ELE	Electives (300 – 400)	6
	Total	**16**
Semester 8		
HSC 491	Service Learning in Community Health II	3
HSC 450	Global Health Issues	3
MINOR	Minor Courses	3
ELE	Electives (300-400)	6
	Total	**15**
	Credits from Interprofessional Courses	**3**
	TOTAL	**121**

Bachelors of Science in Health Sciences (121 credit hours)
Community Health Track (on-line)

The following is a sample plan of study. The actual order in which classes are taken may vary and students are encouraged to work closely with their faculty advisor to develop a specific plan of study.

Students who are transferring credits from other institutions may be able to use these credits as their electives. Transfer of credit is subject to the Transfer Credit Policy.

PREFIX	COURSE TITLE	CREDITS
Semester 1		
GEN 101	Freshman Seminar	3
ENG 111	Grammar & Composition I	3
MTH 165	College Algebra	3
PSY 101	Introduction to Psychology	3
SCI 101	Introduction to Natural Sciences	3
	Total	**15**
Semester 2		
ENG 112	Grammar & Composition II	3
PHL 115	Foundations of Ethics	3
ELE HUM	Humanities Electives	3
ELE	Electives	6
	Total	**15**
Semester 3		
ELE PSY	Psychology Elective	3
ELE SOC	Sociology Elective	3

ELE	Elective	9
	Total	**15**
Semester 4		
HSC 200	Issues in Community Health	3
MTH 265	Introduction to Health Sciences Statistics	3
ELE	Electives	9
	Total	**15**
PREFIX	**COURSE TITLE**	**CREDITS**
Semester 5		
ENG 325	Communication in Professional Practice	3
HCM 301	US Healthcare System	4
HLT 301	Nutrition	3
IPE 200	Fundamentals of Teamwork	1
PBH 355	Principles of Public Health	4
	Total	**15**
Semester 6		
IDS 453	Research Methods	3
IPE 300	Interprofessional Healthcare Discovery & Collaboration	1
PBH 375	Fundamentals of Epidemiology	4
SOC 301	Race and Ethnicity in Healthcare	3
ELE	Electives 300 – 400 Level	3
	Total	**14**
PREFIX	**COURSE TITLE**	**CREDITS**
Semester 7		
HSC 455	Marketing & Public Relations in Health	3
HSC 490	Service Learning in Community Health I	3
IPE 400	Interprofessional Healthcare Experiences	1
PBH 415	Population Health Management	3
ELE	Electives	6
	Total	**16**
Semester 8		
HSC 491	Service Learning in Community Health II	3
HSC 450	Global Health Issues	3
PBH 425	Environmental Health	3
ELE	Electives (300-400)	6
	Total	**15**
	Credits from Interprofessional Courses	**3**
	TOTAL	**121**

Bachelors of Science in Health Sciences: Pre-Graduate Track (120 credit hours)
The Pre-Graduate track is designed for students who plan to attend graduate schools in healthcare-related fields.

The following is a sample plan of study. The actual order in which classes are taken may vary and students are encouraged to work closely with their faculty advisor to develop a specific plan of study.

Students who are transferring credits from other institutions may be able to use these credits as their electives. Transfer of credit is subject to the Transfer Credit Policy.

PREFIX	COURSE TITLE	CREDITS
Semester 1		
BIO ELE	BIO Elective 100-200 Level	4
CHM 111	General Chemistry I	4
GEN 101	Freshman Seminar	3
ENG 111	Grammar & Composition I	3
	Total	**14**
Semester 2		
CHM 112	General Chemistry II	4
ENG 112	Grammar & Composition II	3
HLT 215	Medical Terminology	3
MTH 165 or 170	College Algebra or Precalculus with Trigonometry	3
PHL 115	Foundations of Ethics	3
	Total	**16**
Semester 3		
BIO 211	Anatomy & Physiology I	4
CHM 244	Organic Chemistry I	4
IPE 200	Fundamentals of Teamwork	1
PHY 201	Physics I	4
PSY 101	Introduction to Psychology	3
	Total	**16**
Semester 4		
BIO 212	Anatomy & Physiology II	4
CHM 245	Organic Chemistry II	4
HLT 301	Nutrition	3
ELE PSY	Psychology Elective	3
ELE SOC	Sociology Elective	3
	Total	**17**
PREFIX	**COURSE TITLE**	**CREDITS**
Semester 5		
BIO 253	Microbiology	4
CHM 360	Biochemistry I	4
IPE 300	Interprofessional Healthcare Discovery & Collaboration	1

MTH 265	Introduction Health Science Statistics	3
ELE HUM	Humanity Elective	3
	Total	**15**
Semester 6		
HCM 301	U.S. Healthcare System	4
IDS 453	Research Methods	3
PBH 355	Principles of Public Health	4
ELE BIO/CHM	Biology/Chemistry Elective 300-400 Level	3
	Total	**14**
PREFIX	**COURSE TITLE**	**CREDITS**
Semester 7		
IDS 308	Critical Thinking	3
IPE 400	Interprofessional Healthcare Experiences	1
HSC 490	Service Learning in Community Health I	3
ELE BIO	Biology Elective 300 – 400 Level	3
ELE	Electives 300 – 400 Level	6
	Total	**16**
Semester 8		
HSC 491	Service Learning in Community Health II	3
HSC 450	Global Health Issues	3
ELE BIO	Biology Elective 300 – 400 Level	3
ELE	Elective (300-400)	3
	Total	**15**
	Credits from Interprofessional Courses	**3**
	TOTAL	**120**

Suggested BIO & CHM Electives for Pre-Graduate Track:

100-200 Level
BIO 101 General Biology I
BIO 102 General Biology II

300-400 Level
BIO 300 Pathophysiology
BIO 304 Genetics
BIO 309 Physiological Foundations of Pharmacology
BIO 321 Gross Anatomy I
BIO 322 Gross Anatomy II
BIO 401 Molecular Biology
BIO 404 Cell Biology
BIO 405 Cancer Biology
BIO 430 Neuroanatomy & Neurophysiology
BIO 412 Immunology
CHM 361 Biochemistry II

Minor in Health Science

Must complete a minimum of 15 credit hours, of which, 9 credits must be at the 300/400 level and 6 credits must be completed at Jefferson.

HLT 215: Medical Terminology (3 cr.)
HLT 221: Concepts of Disease (3 cr.)
HLT 301: Nutrition (3 cr.)
IDS 201: The Experience of Illness (3 cr.)
IDS 203: Applied Spanish - Healthcare Profession (3 cr.)
IDS 302: Statistics and Epidemiological Methods for Healthcare (4 cr.)
HCM 301: U.S. Healthcare System (4 cr.)
IDS 307: Topics in Interdisciplinary Healthcare (3 cr.)
IDS 308: Critical Thinking (3 cr.)
IDS 320: Transcultural Healthcare (2 cr.)
IDS 355: Principles of Public Health (4 cr.)
IDS 450: Global Health Issues (3 cr.)
SOC 301: Race and Ethnicity in Healthcare (3 cr.)
SOC 320: Deviance and Medicalization (3 cr.)

Minor in Public Health (15-16 credits)

Required Courses (12 credits)

PBH 355	Principles of Public Health	4 credits
HCM 301	U.S. Healthcare System	4 credits
PBH 375	Fundamentals of Epidemiology	4 credits

Elective Course (3 credits *minimum*) *Select 1 course from the following:*

HES 452	Community Health & Physical Activity Promotion	3 credits
IDS 340	Appalachian Health and Culture	3 credits
HSC 450	Global Health Issues	3 credits
NSG 420	Community Health Nursing (NSG students only)	3 credits
NSG 421	Promoting Health in the Comm. (NSG students only)	4 credits
PSY 250	Health Psychology	3 credits
SOC 210	Medical Sociology	3 credits
SOC 213	Social Issues in Healthcare	3 credits
SOC 301	Race & Ethnicity	3 credits

Minor in Forensic Science

Required Courses (12 credits):

FOR 301	Fundamentals of Forensic Science I	3 credits
FOR 310	Crime Scene Investigation	3 credits
FOR 320	Introduction to Courts & Criminal Law	3 credits
FOR 410	Special Topics in Forensic Science	3 credits

Elective Course: Select one of the following (3-4 credits)

FOR 302	Fundamentals of Forensic Science II	3 credits
BIO/CHM ELE	Biology (BIO) or Chemistry (CHM) elective*	3-4 credits
	*Excluding BIO 211, BIO 212, BIO 230, BIO 240	

Bachelor of Science in Healthcare Management

Introduction

The Healthcare Management (HCM) program educates a diverse community of students who have varying levels of work experience and education. The four year curriculum provides a broad base of knowledge and skills to prepare students with the needed general analytical and communication competencies, as well as management competencies for professional jobs in the field of healthcare management.

To meet the diverse needs of our student body, the HCM program offers a 100% online curriculum. Online courses are taught using technology that supports both synchronous and asynchronous course instruction. This methodology provides for meaningful interaction among students and the instructor while eliminating the need to attend class on campus. Synchronous instruction is usually scheduled during the evening hours to facilitate student availability. HCM faculty are available for student support as needed.

Mission Statement

Consistent with the College's mission, the HCM program mission is to develop ethical and competent managers and leaders who are committed to improving the organization and delivery of healthcare services.

Program Accreditation, Approval, and Memberships

The Baccalaureate of Science in Healthcare Management is an associate member of the Association of University Programs in Health Administration (AUPHA) (2000 14 Street North, Suite 780, Arlington, VA 22201, Telephone: 703-894-0940). The program is a chapter member in the Upsilon Phi Delta Honor Society in Healthcare Management.

Program Outcomes

Consistent with all undergraduate students at Jefferson College of Health Sciences, HCM students are expected to be able to

1. Demonstrate knowledge of a broad range of social, behavioral, and environmental factors that influence individual and population health in the U.S.
2. Demonstrate knowledge and critical thinking skills in general business management concepts and practices.
3. Demonstrate knowledge and skills to effectively manage healthcare organizations within complex, competitive, regulatory, and legal environments.

4. Demonstrate the ability to apply, integrate, and synthesize acquired knowledge and skills toward the resolution of practical managerial issues and problems.
5. Demonstrate effective professional communication, cultural sensitivity, and a commitment to lifelong learning.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, Healthcare Management students are expected to follow the program policies as published in the *BS Healthcare Management Student Handbook.* This handbook is available electronically on the program blackboard site and may be requested from the program secretary.

Program Progression

All Healthcare Management students are expected to successfully complete the following courses prior to beginning junior level HCM professional courses:

- ENG 111 and ENG 112
- IDS 255
- MTH 165
- BUS 131

Additionally, healthcare management students are required to obtain a “C” or better in all 300-400 level classes required by the applicable healthcare management plan of study.

Healthcare Organizational Management Minor

Students who are majoring in disciplines other than Healthcare Management (HCM) may choose to minor in Healthcare Management. The following are requirements for a Healthcare Organizational Management minor.

Required:
Minimum of 16 credit hours, all of which must be earned at Jefferson.

- HCM 301 – U.S. Healthcare System - 4 credits (pre-requisite for all subsequent minor coursework)
- HCM 302 – Healthcare Management – 4 credits
- HCM 320 – Health Info Systems – 4 credits
- HCM 330 – Human Resources Management in Healthcare – 4 credits
  or
  HCM 420 – Legal and Ethical Issues in Healthcare – 4 credits

The above courses are typically taught as accelerated, online classes over 7 ½ weeks. Instructors may require students to participate in synchronous sessions to facilitate communication in addition to asynchronous class participation using Blackboard.

Bachelor of Science in Healthcare Management
Program of Study (120 credits)
The following is a sample plan of study. The actual order in which HCM and non HCM classes are taken may vary and HCM students are encouraged to work closely with their faculty advisor to develop a specific plan of study.

Students who are transferring credits from other institutions may be able to use these credits as their electives. The transfer of credit is subject to the Transfer Credit policy. At least 25 credits of upper division courses must be completed at Jefferson.

PREFIX	COURSE TITLE	CREDITS
Semester 1: Fall		
BUS 131	Computer Concepts & Applications	3
Elective (Natural Science)	Elective	3
GEN 101	Freshman Seminar	3
Elective	Elective	3
ENG 111	Grammar and Composition I	3
IDS 255	Introduction to Library Research	1
	Total	16
Semester 2: Spring		
Elective (Social/Behavioral Science)	Introductory Psychology or Introductory Sociology	3
Elective	Elective	3
Elective	Elective	3
ENG 112	Grammar and Composition II	3
MTH 165 or MTH 201	College Algebra or Calculus	3
	Total	15
Semester 3: Fall		
Elective	Elective	3
BUS 211	Concepts of Healthcare Economics	3
Elective (Social/Behavioral Science)	Elective	3
Elective	Elective	3
IPE 200	Foundations of Teamwork	1
	Total	13
Semester 4: Spring		
Elective (Humanities)	Elective	3
ACC 211	Principles of Financial Accounting	3
Elective	Elective	3
Elective	Elective	3
Elective	Elective	3
	Total	15

PREFIX	COURSE TITLE	CREDITS
Semester 5: Fall		
ENG 325	Communication in Prof Practice	3
HCM 301	US Healthcare System	4
HCM 320	Health Info Systems & Computer Applications	4
IPE 300	Interprofessional Healthcare Discovery and Collaboration	1
	Total	12
Semester 6: Spring		
HCM 302	Healthcare Management	4
HCM 310	Healthcare Accounting	4
IDS 302	Statistical & Epidemiological Methods for Healthcare	4
IDS 308	Critical Thinking	3
	Total	15
Semester 7: Summer		
HCM 340	Healthcare Finance	4
HCM 450	Healthcare Economics & Policy	4
	Total	8
Semester 8: Fall		
HCM 330	Human Resources Management in Healthcare	4
HCM 410	Quantitative Methods in Healthcare	4
HCM 420	Legal and Ethical Issues in Healthcare	4
HCM 464	Concepts of Case Analysis in Healthcare	1
IPE 400	Interprofessional Healthcare Experiences	1
	Total	14
Semester 9: Spring		
Elective	Elective	2
HCM 415	Managing a Diverse Healthcare Work Force	2
HCM 466	Seminar in Healthcare Management	4
HCM 485	Strategic Management & Marketing	4
	Total	12
	Credits from Non-HCM courses	**70**
	Credits from Interprofessional Education Courses:	**3**
	Credits from HCM courses	**47**
	Total Credits:	**120**

Humanities and Social Sciences Program

Introduction

The Humanities and Social Sciences Program at Jefferson provides core curriculum courses and elective courses that provide students with opportunities to learn and develop humanistic approaches to the study of health sciences and professional excellence in the healthcare field.

Courses in disciplines such as philosophy, sociology, English, and interdisciplinary studies provide students with the skills necessary for problem-solving, communicating effectively in the workplace, and interacting with individuals from all walks of life. Humanities and social sciences classes provide the general foundation of knowledge upon which solid healthcare skills are built.

Mission

The mission of Humanities and Social Sciences is to support the development of our healthcare community through the provision of learning opportunities to think critically and creatively, to communicate effectively, to seek meaningful information, to adapt to change, and to respect diversity.

Healthcare Humanities Minor

The Healthcare Humanities Minor at Jefferson provides broad-based interdisciplinary learning that includes and supports personal and professional integrity, narrative and cultural competency, the ethical and spiritual dimensions of healthcare, and the holistic development of the individual so valued in the healthcare community.

Required: a minimum of 15 credit hours, 12 of which must be earned at Jefferson

- IDS 201 The Experience of Illness (3 credit hours)
- IDS 215 Bioethics (3 credit hours)

PLUS

At least 9 credit hours from the following:

- ENG 301 Women's Studies in Literature and Culture (3 credit hours)
- IDS 340 Appalachian Health and Culture (3 credit hours)
- SOC 301 Race and Ethnicity in Healthcare (3 credit hours)
- IDS 308 Critical Thinking: A Framework for Healthcare Decision-making (3 credit hours)
- PHL 320 World Religions (3 credit hours)
- IDS 372/NSG 372 Spirituality in Healthcare (3 credit hours)

Bachelor of Sciences in Medical Laboratory Sciences Program

Introduction

Medical Laboratory Scientists are healthcare professionals who perform diagnostic testing, usually in a clinical laboratory setting. Our profession has previously been referred to as Clinical Laboratory Science and as Medical Technology. Students who successfully complete this program will be eligible for the national certification examination administered by American Society of Clinical Pathology (ASCP).

Students in the MLS program experience a blend of traditional lecture courses, laboratory classes, and clinical rotations to prepare them for employment in the medical laboratory field. While engaged in clinical rotations, students will be supervised by certified laboratory professionals, and will achieve entry level competency in each department of the clinical laboratory.

Employment opportunities exist in clinical laboratories, physician office laboratories, research laboratories, industry, sales, test and instrument development, and veterinary laboratories. Program faculty actively assist students with job searches and help students prepare for interviews.

Mission

The mission of the Medical Laboratory Science Program is to prepare ethical, knowledgeable, competent, and caring laboratory scientists who possess a broad knowledge base in the laboratory science field, and are prepared to provide excellent patient care to a diverse population of individuals.

Vision

Graduates of the Jefferson College of Health Sciences Medical Laboratory Science Program will be nationally recognized as employees of choice for the medical, research and reference laboratory fields.

Program Accreditation

The Medical Laboratory Science Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Rd., Suite 720, Rosemont, IL 60018-5119. Website: *www.naacls.org*

Physical Demands

- Repetitive movement to include keyboarding, pipetting, twisting/turning, bending.
- Possible lifting and carrying of supplies and equipment up to approximately 10 pounds.
- Intermittent standing, walking and sitting.
- Potential stair ascending and descending.

- Visual ability to observe equipment performance, read computer screens and paperwork, perceived depth and color etc.

Working Conditions:

- May be exposed to infectious diseases.
- May require extensive standing, sitting, bending, walking and some heavy lifting.
- May work with hazardous chemicals or noxious odors.
- May require travel between facilities.
- May require working different shifts.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the *Medical Laboratory Science Program Handbook*. These handbooks are available electronically on the program's blackboard site.

Certification Information

Upon graduation from this program graduates are eligible sit for a national certification examination administered by the American Society of Clinical Pathology. Their offices are headquartered at 33 West Monroe Street, Suite 1600, Chicago, IL 60603. Phone: (312) 541-4999

Some states also require licensure; requirements are different in each state.

Medical Laboratory Science Program of Study (127 credits)

PREFIX	COURSE TITLE	CREDITS
SEMESTER 1: FALL		
ENG 111	Grammar and Composition II	3
BIO 101/L	General Biology I with Lab	4
CHM 111/L	General Chemistry I with Lab	4
GEN 101	Academic Seminar	3
	Total Credits	**14**
SEMESTER 2: SPRING		
ENG 112	Grammar and Composition II	3
BIO 102/L	General Biology II with Lab	4
CHM 112/L	General Chemistry II with Lab	4
MTH 170 OR MTH 201	Pre-Calculus with Trigonometry OR Calculus I	3
BUS 131	Computer Concepts	3
	Total Credits	**17**
SEMESTER 3: FALL		
BIO 211/L BIO 230/L	Anatomy & Physiology I with Lab OR Comparative Anatomy with Lab	4
CHM 244/L	Organic Chemistry I with Lab	4

MTH 210	Statistics	3
PHL 115	Foundations of Ethics	3
	Total Credits	**14**
SEMESTER 4: SPRING		
BIO 212/L OR BIO 240/L	Anatomy & Physiology II with Lab Or Comparative Physiology with Lab	4
CHM 245/L	Organic Chemistry II with Lab	4
BIO ELE	Biology Elective	3
SOC 213	Social Issues in Healthcare	3
IPE 200	Fundamentals of Teamwork	1
	Total Credits	**15**
SEMESTER 5: Fall		
BIO 253/L	Microbiology with Lab	4
CHM 360/L	Biochemistry I	4
BIO 312	Research Methodology	3
MTH 301	Statistics for Healthcare	3
IPE 300	IPE Healthcare Discovery & Collaboration	1
	Total Credits	**15**
SEMESTER 6: Spring		
BIO 412	Immunology	3
BIO 300	Pathophysiology	3
BIO ELE	Biology Elective	3
BIO ELE	Biology Elective	3
HUM ELE	Humanities Elective	3
IPE 400	IPE Healthcare Experiences	1
	Total Credits	**16**
SEMESTER 7: Summer		
MLS 410	Introduction to Medical Laboratory Science	6
	Total Credits	**6**
SEMESTER 8: Fall		
MLS 420	Intermediate Medical Laboratory Science	15
	Total Credits	**15**
SEMESTER 9: Spring		
MLS 430	Advanced Medical Laboratory Science	15
	Total Credits	**15**
	Credits from Non-MLS courses	**88**
	Credits from Interprofessional Education Courses:	**3**
	Credits from MLS courses	**36**
	TOTAL CREDITS	**127**

Bachelor of Science in Nursing

Introduction

The Bachelor of Science in Nursing (BSN) program prepares graduates for the professional roles of provider, designer, manager, and coordinator of care. In addition, the graduate is prepared as a member of the profession of nursing. The BSN program prepares the graduate to deliver and evaluate patient-centered care while demonstrating clinical competency, critical thinking skills and caring behaviors. The BSN graduate promotes health to individuals, families, groups and communities and implements evidenced based interventions when health is altered. The BSN graduate works in a variety of health care and community settings. Graduates of the BSN program are prepared to pursue graduate education. The College offers three tracks to the BSN degree.

The ***Pre-licensure BSN Track*** is designed for the student who does not have a previous degree in nursing. The track builds on a strong foundation of general education courses which provides students with the knowledge and cognitive skills necessary to enter nursing coursework. Graduates of the Pre-licensure BSN Track will be prepared to take the National Council Licensing Examination-Registered Nurse (NCLEX-RN).

The ***Accelerated BSN Track*** is designed for individuals who possess a bachelors undergraduate degree from an accredited college or university in a field other than nursing. This track gives students who have completed the prerequisite courses the opportunity to earn a BSN degree at Jefferson in 4 semesters (16 months). Due to the full-time demands of this program, it is strongly recommended that students not work while enrolled in the nursing courses. Graduates of the Accelerated BSN Track will be prepared to take the National Council Licensing Examination-Registered Nurse (NCLEX-RN).

The ***Post-licensure RN to BSN Track*** is designed to provide Registered Nurses the opportunity to obtain a Bachelor in Science Degree in Nursing in preparation for professional leadership and career enhancement. This track builds upon previous education and experiences of Registered Nurses and features personalized advisement, support and convenient course scheduling. This track is offered in online learning format, allowing students to continue to work while they pursue their educational objectives. Validation of requisite knowledge is achieved through performance in specified nursing courses.

Nursing Programs Mission

Jefferson Nursing Programs promote excellence in nursing education, practice, scholarship, and service. Through innovative interprofessional practice and education experiences, graduates are empowered to provide leadership in the rapidly changing and culturally diverse healthcare environment. Graduates

contribute to the health of all populations as ethical clinicians, educators, researchers, and leaders.

Program Accreditation, Approval, and Memberships

The BSN program is accredited by the Commission on Collegiate Nursing Education (One DuPont Circle, NW, Suite 530 Washington, DC 20036, Phone 202-887-6791). The pre-licensure BSN program is approved by the Virginia Board of Nursing, Perimeter Center, 9960 Maryland Dr., Suite 300, Henrico, VA 23233-1463. Phone: (804) 367-4515.
The Department of Nursing is a member of the American Association of Colleges of Nursing (AACN).and the National League for Nursing (NLN).

Program Outcomes
Graduates of the Bachelor of Science in Nursing program will be able to

1. provide safe, quality patient-centered care while integrating cultural competence, and evidence-based practice,

2. integrate knowledge and skills in informatics and patient care technology into the delivery of patient-centered care,

3. demonstrate skills in leadership, quality improvement, and patient safety to provide high quality care within interprofessional teams,

4. incorporate strategies to improve and promote individual, family and population health in a variety of health care settings,

5. examine the impact of socio-cultural, legal, economic, regulatory and political factors influencing healthcare delivery and practice,

6. demonstrate a commitment to professionalism, professional values and lifelong learning.

Minimum Performance Standards

In compliance with the Americans with Disabilities Act, nursing students must be, with reasonable accommodations, physically and mentally capable of performing minimal standards to meet program objectives. Any student who may require accommodations should schedule an appointment with the Coordinator of Services for Students with Disabilities. The Minimum Performance Standards for Admission and Progression include:

Essential Mental Abilities:

1. Follow instructions and rules.
2. Maintain reality orientation accompanied by short and long term memory.
3. Apply basic mathematical skills.
4. Demonstrate safe nursing practice within the defined clinical time period.

5. Display gross and fine motor abilities sufficient to provide safe and effective nursing care.
6. Utilize sufficient critical thinking abilities for clinical judgment.

Essential Communication Skills:

1. Speak clearly in order to communicate with patients, families, healthcare team members, peers and faculty.
2. Effectively utilize interpersonal abilities to interact with diverse individuals, families and groups.
3. Demonstrate communication abilities sufficient for clear interaction with others in verbal and written form.
4. Read and accurately interpret written communications (i.e., test questions, MD orders, etc.) without assistance.

Essential Physical Abilities:

1. Stand and walk for six to twelve hours/day.
2. Walk for prolonged periods from one area to another over an eight to twelve hour period.
3. Bend, squat and kneel.
4. Assist in lifting or moving clients of all age groups and weights.
5. Perform CPR (i.e., move above patient to compress chest and manually ventilate patient).
6. Work with arms fully extended overhead.
7. Use hands for grasping, pushing, pulling and fine manipulation.
8. Demonstrate eye/hand coordination for manipulation of equipment (i.e., syringes, procedures, etc.).
9. Utilize auditory abilities sufficient to monitor and assess health needs.
10. Demonstrate visual abilities sufficient for observation and assessment necessary for nursing care.
11. Display sufficient tactile abilities for physical assessment.

Program Progression

Pre-licensure accelerated BSN and traditional BSN students are required to purchase NCLEX-RN preparation resources each semester beginning with the first nursing course.

All BSN Students (in any track)

To continue in the BSN Program, the student must:

- Maintain at least a 2.50 cumulative GPA
- Earn a grade of “C” or better in all required interdisciplinary, interprofessional, nursing, English, math and science courses
- Follow the academic policies provided in the BSN Student Handbook

Pre-licensure BSN Students (non-accelerated)
To register for the first Nursing courses the pre-licensure BSN student must meet the following criteria:

- A cumulative GPA of 2.50 or higher
- Completion of all first year courses in the program of study
- Enrollment in all required third semester courses
- A "C" or higher in all required interdisciplinary, interprofessional, English, math and science courses
- Required science courses must have been completed within the past 5 years.
- Students who fail two required science courses or any required science course twice within the 5 year time-frame are not eligible for entry into nursing courses.

Pre-Licensure Traditional BSN Program Tiered Placement Criteria for Upper Division Nursing Courses

Progression to upper division (300-level) nursing courses is based on meeting the following criteria:

- Score at or above the 51st percentile on the Kaplan Admissions test
- Pass NSG 255 and NSG 203 on the first attempt with a final course grade of "C" or above
- Cumulative Grade Point Average as follows:
    - 3.0 and above: Guaranteed progression
    - 2.5-2.9: Ranked for placement on space available basis
    - Less than 2.5: Not eligible for progression

Post-licensure RN to BSN Students
To enroll in upper division nursing courses, the RN-BSN student must meet the following criteria:

- Current RN licensure. Students are expected to submit licensure renewal as necessary.
- Completion of prerequisite courses with a minimum cumulative program GPA of 2.50
- Earn a grade of "C" or better in all required interdisciplinary, interprofessional, nursing, English, math and science courses

Licensing Information
The application for registered nurse (RN) licensure in the Commonwealth of Virginia includes questions regarding previous licensure as an LPN or RN, violations of the law constituting a felony or misdemeanor, alcohol or chemical dependency and treatment for physical or mental disorders. According to Section 54.1-3007 of the statutes and regulations of the Board of Nursing, Code of Virginia:

The Board may refuse to admit a candidate to any examination, refuse to issue a license, certificate, or registration to any applicant and may suspend any license, certificate, registration, or multistate licensure privilege for a stated period or

indefinitely, or revoke any license, certificate, registration, or multistate licensure privilege, or censure or reprimand any licensee, certificate holder, registrant, or multistate licensure privilege holder, or place him on probation for such time as it may designate for any of the following causes:

1. Fraud or deceit in procuring or attempting to procure a license, certificate, or registration;
2. Unprofessional conduct;
3. Willful or repeated violation of any of the provisions of this chapter;
4. Conviction of any felony or any misdemeanor involving moral turpitude;
5. Practicing in a manner contrary to the standards of ethics or in such a manner as to make his practice a danger to the health and welfare of patients or to the public;
6. Use of alcohol or drugs to the extent that such use renders him unsafe to practice, or any mental or physical illness rendering him unsafe to practice;
7. The denial, revocation, suspension or restriction of a license, certificate, registration, or multistate licensure privilege to practice in another state, the District of Columbia or a United States possession or territory; or
8. Abuse, negligent practice, or misappropriation of a patient's or resident's property.

(Code 1950, § 54-353; 1970, c. 116; 1979, c. 5, § 54-367.32; 1982, c. 598; 1988, c. 765; 1989, c. 278; 2003, c. 249; 2005, cc. 610, 924.)

For questions regarding individual situations pertaining to the above, students should contact: Virginia Board of Nursing Perimeter Center, 9960 Maryland Dr., Suite 300, Henrico, VA 23233-1463. Phone: (804) 367-4515; Fax: (804) 527-4455; Complaints: (800) 533-1560. E-mail: *nursebd@dhp.virginia.gov* Website: *http://www.dhp.state.va.us/nursing*

Validation of Requisite Knowledge

Licensure as a Registered Nurse (RN) is required for admission to the Post-licensure RN to BSN track. The RN licensure examination (NCLEX-RN) is administered by the National Council of State Boards of Nursing (NCSBN), which has established required criteria for nursing education programs that “enable the student to develop the nursing knowledge, skills and competencies necessary for the level, scope and standards of nursing practice consistent with the level of licensure” (NCSBN, 2006, Article IX, 9.1.2). These required criteria serve as the foundation for a validation process in which 54 credit hours are awarded for courses taken in an AD or diploma nursing program, thus allowing RN to BSN students to receive credit for their basic nursing preparation.

As described in the following program of study, this works by a process of knowledge validation that is linked to completion of three specific nursing courses with a grade of “C” or better: The validation credit hours are held in escrow and are awarded in the final semester of the program of study.

Challenge Credit

For post-licensure RN to BSN students, a written challenge examination may be taken for the Nutrition course. If not successfully completed prior to enrolling in nursing courses, the nutrition course must be taken. There is a fee to cover the cost of administering the exam. After successfully passing the exam, the student will be charged a fee for the nutrition course when challenge credit is awarded. Students may arrange to take the challenge exam by contacting the department secretary.

Credit for Certification

Many post-licensure RN to BSN students hold certifications in specialty areas of nursing practice. The Nursing Department recognizes that certification represents the attainment of significant knowledge in areas of nursing beyond basic practice. A written request for elective credit with evidence of current certification must be submitted to the BSN Post-Licensure Program Director. Students are eligible for only one certification/3 credit elective.

Bachelor of Science in Nursing: Pre-licensure Track
Program of Study (122 Credits)
Courses must be taken sequentially in the order presented.

PREFIX	COURSE TITLE	CREDITS
Semester 1		
BIO 211/211 L	Anatomy & Physiology I with Lab	4
ENG 111	Grammar & Composition I	3
GEN 101	Freshman Seminar	3
PSY 101	Introduction to Psychology	3
	Total Credits:	**13**
Semester 2		
BIO 212/212 L	Anatomy & Physiology II with Lab	4
ENG 112	Grammar & Composition II	3
PHL 115	Foundations of Ethics	3
PSY 220	Lifespan Development	3
SOC 213	Social Issues in Health Care Delivery	3
	Total Credits:	**16**
Semester 3		
BIO 253/253 L	Microbiology with Lab	4
ENG 325	Communication in Professional Practice	3
HLT 301	Nutrition	3
IDS 101	Intro to Patient Care Skills*	1
IPE 200	Fundamentals of Teamwork	1
MTH 165	College Algebra	3
	Total Credits:	**15**
Semester 4		
BIO 300	Pathophysiology	3
BIO 309	Physiological Foundations of Pharmacology	3

MTH 265	Introduction to Health Sciences Statistics	3
NSG 201	Dosage Calculations	1
NSG 203	Foundations for Professional Nursing Practice	3
NSG 255/255L	Health Assessment	3
	Total Credits:	**16**
Semester 5		
IPE 300	Interprofessional Healthcare Discovery and Collaboration	1
NSG 302	Professional Nursing Skills I	2
NSG 314	Nursing Process in Psychiatric/Mental Health	3
NSG 316	Nursing Process in Gerontology	2
NSG 326	Nursing Process Applications TBSN I	4
NSG 328C	Clinical Practicum TBSN I	3
	Total Credits:	**15**

PREFIX	COURSE TITLE	CREDITS
Semester 6		
NSG 308	Professional Nursing Skills II with Lab	2
NSG 320	Informatics & Technology in Healthcare	3
NSG 327	Nursing Process Applications TBSN II	4
NSG 331	Nursing Process for Families with Children	4
NSG 338C	Clinical Practicum TBSN II	3
	Total Credits:	**16**
Semester 7		
NSG 309	Prof Nursing Practice I	1
NSG 410	Research Applications in Health Care	3
NSG 421	Promoting Health in the Community	4
NSG 426	Nursing Process Applications TBSN III	4
NSG 429C	Clinical Practicum TBSN III	4
	Total Credits:	**16**
Semester 8		
IPE 400	Interprofessional Healthcare Experiences	1
NSG 409	Professional Nursing Practice II	1
NSG 427	Nursing Process Applications TBSN IV	4
NSG 438C	Clinical Practicum TBSN IV	3
NSG 475	Leadership & Health Policy in Nursing	3
NSG	Nursing Elective	3
	Total Credits:	**15**
	Total Credits	**122**
	Credits from Non-Major Courses	**52**
	Credits from Interprofessional Education Courses:	**3**
	Credits from Major Courses	**67**

*IDS 101 Intro to Patient Care Skills waived for CNA with current certification who passes pre-course check-off.

Bachelor of Science in Nursing: Accelerated Track (Fall Cohort)
Program of Study (122 Credits)

PREFIX	COURSE TITLE	CREDITS
Required for Admission to the Program		
	Baccalaureate Degree	21
	English Credits (Grammar and Composition I and II)	6
Prerequisites: The following MUST be completed prior to beginning Nursing Courses		
ELE	Social Science	3
ELE	Humanities	3
BIO 211/211L	Anatomy and Physiology I	4
BIO 212/212L	Anatomy and Physiology II	4
PSY 220	Lifespan Development	3
PHL 115	Foundations of Ethics	3
BIO 253/253L	Microbiology	4
BIO 300	Pathophysiology (may be taken concurrently in 1st Fall semester)	3
HLT 301	Nutrition	3
MTH 301	Statistical Methods for Healthcare	3
	Total Prerequisite Credits:	**33**
Nursing Courses		
Semester 1: Fall		
IDS 101	Intro to Patient Care Skills*	1
IPE 401	Foundations in Interprofessional Leadership I	2
NSG 203	Foundations for Professional Nursing Practice	3
NSG 255/255L	Health Assessment	3
NSG 300	Pharmacology	3
NSG 350	Professional Nursing Skills for ABSN	3
	Total Credits:	**15**
Semester 2: Spring		
IPE 402	Foundations in Interprofessional Leadership II	2
NSG 311	Nursing Process Aging and Mental Health	4
NSG 410	Research Applications in Healthcare	3
NSG 354	Nursing Process Applications for ABSN I	3
NSG 358C	Clinical Practicum for ABSN I	4
	Total Credits:	**16**
Semester 3: Summer		
NSG 320	Informatics and Technology in Health Care	3
NSG 331	Nursing Process for Families with Children	4
NSG 361	Nursing Process Applications for ABSN II	3
NSG 369C	Clinical Practicum for ABSN II	4
	Total Credits:	**14**
Semester 4: Fall		
NSG 412	Professional Nursing Capstone for ABSN	2
NSG 421	Promoting Health in the Community	4

NSG 461	Nursing Process Applications for ABSN III	3
NSG 475	Leadership and Health Policy in Nursing	3
NSG 479C	Clinical Practicum for ABSN III	5
	Total Credits:	**17**
	Credits from Non-Nursing Courses	**33**
	Credits from Interprofessional Education Courses:	**5**
	Credits from Nursing Courses	**57**
	Credits from Previous Degree (includes ENG credits)	**27**
	TOTAL CREDITS FOR BSN	**122**

*IDS 101 Intro to Patient Care Skills waived for CNA with current certification who pass the pre-course check-off.

Bachelor of Science in Nursing: Accelerated Track (Spring Cohort)
Program of Study (122 Credits)

PREFIX	COURSE TITLE	CREDITS
Required for Admission to the Program		
	Baccalaureate Degree	21
	English Credits (Grammar and Composition I and II)	6
Prerequisites: The following MUST be completed prior to beginning Nursing Courses		
ELE	Social Science	3
ELE	Humanities	3
BIO 211/211L	Anatomy and Physiology I	4
BIO 212/212L	Anatomy and Physiology II	4
PSY 220	Lifespan Development	3
PHL 115	Foundations of Ethics	3
BIO 253/253L	Microbiology	4
BIO 300	Pathophysiology (may be taken concurrently in 1st Fall semester)	3
HLT 301	Nutrition	3
MTH 301	Statistical Methods for Healthcare	3
	Total Prerequisite Credits:	**33**
Nursing Courses		
Semester 1: Spring		
IDS 100	Introduction to Healthcare Delivery Systems	1
IDS 101	Intro to Patient Care Skills*	1
IPE 200	Fundamentals of Teamwork	1
NSG 203	Foundations for Professional Nursing Practice	3
NSG 255/255L	Health Assessment	3
NSG 300	Pharmacology	3
NSG 350	Professional Nursing Skills for ABSN	3
	Total Credits:	**15**
Semester 2: Summer		
NSG 311	Nursing Process Aging and Mental Health	4
NSG 320	Informatics and Technology in Healthcare	3

NSG 354	Nursing Process Applications for ABSN I	3
NSG 358C	Clinical Practicum for ABSN I	4
	Total Credits:	**14**
Semester 3: Fall		
IPE 300	Interprofessional Healthcare Discovery and Collaboration	1
NSG 309	Professional Nursing Practice I	1
NSG 331	Nursing Practice for Families with Children	4
NSG 361	Nursing Process Applications for ABSN II	3
NSG 369C	Clinical Practicum for ABSN II	4
NSG 410	Research Applications in Healthcare	3
	Total Credits:	**16**
Semester 4: Spring		
IPE 400	Interprofessional Healthcare Experiences	1
NSG 409	Professional Nursing Practice II	1
NSG 421	Promoting Health in the Community	4
NSG 461	Nursing Process Applications for ABSN III	3
NSG 475	Leadership and Health Policy in Nursing	3
NSG 479C	Clinical Practicum for ABSN III	5
	Total Credits:	**17**
	Credits from Non-Nursing Courses	**33**
	Credits from Interprofessional/IDS Education Courses:	**5**
	Credits from Nursing Courses	**57**
	Credits from Previous Degree (includes ENG credits)	**27**
	TOTAL CREDITS FOR BSN	**122**

Bachelor of Science in Nursing: Post-licensure Track
Program of Study (122 Credits)

PREFIX	COURSE TITLE	CREDITS
The following MUST be completed prior to beginning Upper Division Nursing Courses		
ENG 111	Grammar & Composition I	3
ENG 112	Grammar & Composition II	3
ENG 325	Communication in Professional Practice	3
GEN 101*	Freshman Seminar	3
HLT 301	Nutrition	3
IDS 255	Introduction to Library Research	1
MTH 301	Statistical Methods for Healthcare	3
*Students who have successfully completed 30 credit hours from a regionally accredited institutions may be exempt from GEN101.	**Total Credits:**	**19**
The following may be taken before or concurrently with Upper Division Nursing Courses		

HUM ELE	Humanities Elective	3
SOC ELE	Social Science Elective	3
ELE	Electives	3
ELE	Electives	3
ELE	Electives	2
Nursing Electives	Upper Division Nursing Electives	3
Nursing Electives	Upper Division Nursing Electives	3
	Total Credits:	**20**
Upper Division Nursing Courses		
Semester 1: Fall		
IPE 200	Fundamentals of Teamwork	1
NSG 312	RN Nursing Concepts, Roles and Issues	3
NSG 320	Informatics & Technology in Healthcare	3
	Total Credits:	**7**
Semester 2: Spring		
IPE 300	Interprofessional Healthcare Discovery & Collaboration	1
NSG 319	RN Comprehensive Approach to Health and Illness I	3
NSG 410	Research Applications of Healthcare	3
	Total Credits:	**7**
Validation Credits	Students who successfully complete NSG 319 will be awarded 12 advanced placement credits for anatomy, physiology, and microbiology.	
	Validation Total Credits:	**12**
PREFIX	**COURSE TITLE**	**CREDITS**
Semester 3: Fall		
NSG 418	RN Comprehensive Approach to Health and Illness II	3
NSG 420	RN Community Health Nursing	3
NSG 422C	RN Community Health Nursing-Clinical	2
	Total Credits:	**8**
Validation Credits	Students who successfully complete NSG 418 will be awarded 12 advance placement credits for psychology, human growth and development, sociology, and ethics.	
	Validation Total Credits:	**12**
Semester 4: Spring		
IPE 400	Interprofessional Healthcare Experiences	1
NSG 475	Leadership & Health Policy in Nursing	3
NSG 475C	RN Leadership & Health Policy in Nursing (clinical)	2
NSG 485	RN Capstone	1
Validation Credits	Students who successfully complete NSG 475/475C will be awarded 30 advanced placement credits in nursing.	
	Validation Total Credits:	**30**

	Total Credits:	**7**
	Total Credits	**122**
	Credits from Non-Nursing Courses	**33**
	Credits from Interprofessional Education Courses:	**3**
	Credits from Nursing Courses	**32**
	Credits from Validation Courses	**54**

Bachelor of Science in Respiratory Therapy

Introduction

Respiratory Therapy (RT) is a unique, growing healthcare profession in which highly-skilled individuals think critically while consulting with physicians and other allied health professionals to diagnose and treat patients with disorders associated with the respiratory and cardiovascular systems.

The Bachelor of Science in Respiratory Therapy (BSRT) program provides students with the knowledge, skills and hands-on experience to begin and advance their career in clinical, managerial, educational, and research positions. The program produces graduates with the knowledge and skills expected of modern respiratory therapists.

Mission Statement

The mission of the RTH program is to prepare professional, ethical, knowledgeable, competent, and compassionate registered respiratory therapists.

Program Accreditation

The Respiratory Therapy program is accredited by the Committee on Accreditation for Respiratory Care (CoARC), 1248 Harwood Road, Bedford, Texas 76021-4244, Phone 817-283-2835. For information regarding the field, go to *www.AARC.org*.

Program Outcomes

Upon completion of the Bachelor of Science in Respiratory Therapy program our graduates will demonstrate competency in cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory therapy as performed by registered respiratory therapists. Graduates will be able to

1. demonstrate critical thinking skills with a comprehensive knowledge base (cognitive skills) by assessing the patient's condition, developing a plan of treatment, and modifying that treatment as needed so that safe and quality cardio-respiratory therapy is given,

2. demonstrate competency in diagnostic and therapeutic clinical (psychomotor) skills necessary to perform the expanding number of procedures that fall under cardiopulmonary care,

3. demonstrate professional, ethical, caring, and culturally competent behaviors (affective skills) toward the patient, family members, and other members of the interdisciplinary team,

4. integrate health promotion and disease prevention strategies into current healthcare practice while focusing on quality and cost-effective protocols,

5. demonstrate effective professional communication,

6. use empirical, evidence-based literature to support decisions within the scientific field,

7. pursue graduate education in education, management, research, and other health care related fields.

Minimum Performance Standards

In compliance with the Americans with Disabilities Act, respiratory therapy students must be, with reasonable accommodations, physically and mentally capable of performing minimal standards to meet program objectives. Any student who may require accommodations should schedule an appointment with the Coordinator of Services for Students with Disabilities. The Minimum Performance Standards for Admission and Progression include:

Essential Mental Abilities:

- Follow instructions and rules.
- Maintain reality orientation accompanied by short and long term memory.
- Apply basic mathematical and algebraic skills without the use of a calculator.
- Demonstrate safe practice within the defined clinical time period.
- Critical thinking ability sufficient for clinical judgment and for making quick lifesaving decisions.

Essential Communication Skills:

- Speak clearly in order to communicate with patients, families, healthcare team members, peers and faculty.
- Interpersonal abilities sufficient to interact with diverse individuals, families and groups.
- Communication abilities sufficient for clear interaction with others in verbal and written form.
- Ability to independently read and accurately interpret written communications (e.g., test questions, MD orders).

Essential Physical Abilities:

- Gross and fine motor abilities sufficient to provide safe and effective care.
- Stand and walk for eight to twelve hours/day.
- Walk quickly in response to emergencies and lifesaving procedures.
- Bend, squat, kneel, and twist upper and lower back.

- Assist in lifting or moving clients of all age groups and weights.
- Lift small equipment up to 35 pounds.
- Perform CPR (e.g., move above patient to compress chest and manually ventilate patient).
- Work with arms fully extended overhead.
- Use hands for grasping, pushing, pulling and fine manipulation.
- Demonstrate eye/hand coordination for manipulation of equipment (e.g., syringes, procedures, etc.).
- Auditory abilities sufficient to hear alarms, beepers, and pages.
- Ability to withstand sudden alarms, sounds, and flashing lights.
- Auditory abilities to monitor breath sounds with a stethoscope and assess health needs.
- Visual abilities to see all colors of the spectrum, distinguish calibrated markers of 0.1 mm, identify digital displays and controls in low light conditions, determine depth of instrumentation placement, and read small print on medicine containers.
- Tactile ability sufficient for physical assessment.

Professional Behavior:
The faculty expects students to exhibit professional behavior. The following is a list of expected professional behaviors:

- Demonstrates safety and honesty in all situations.
- Incorporates professional and ethical standards, including the Patient Bill of Rights, and the AARC Statement of Ethics and Professional Behavior.
- Incorporates respiratory therapy policies and procedures, standards of care, and clinical practice guidelines as appropriate.
- Demonstrates professional demeanor (e.g., dress code and smoking policies per college and program handbook, respect for others, accepts criticism, cooperative, controls temper, attentive and uses professional language).

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the Respiratory Therapy Program Handbook. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

Program Progression

In addition to the “Minimum Performance Standards” listed above, RTH students must adhere to the following college probation and dismissal policies and the RTH program standards to remain in good academic standing:

Academic Probation from a Program / Major

Should a student earn less than a minimum grade of “C” in a program-specific or upper level biology course (BIO 253, 300), or earn an “Unsatisfactory” in a clinical component, the student will be placed on program probation and may be ineligible to take further program -specific courses. The student may retake the course during the next academic session in which the course is offered. When the student completes the course with a grade of “C” or better or “Satisfactory,” probationary status will be removed. If the student is otherwise eligible to remain at the College during program probation, the student may continue to be enrolled in general education courses.

Academic Dismissal from a Program/Major

An unsatisfactory evaluation is a course grade of "D” or "F" and/or a clinical “Unsatisfactory.” The accumulation of two unsatisfactory final course grades, either sequentially or concurrently, in program-specific or upper level biology courses (BIO 253, 300) will result in program dismissal.

Even if the student has retaken a program-specific course in which an initial unsatisfactory evaluation was received, that initial unsatisfactory evaluation will still count in the accumulation of two unsatisfactory evaluations.

Petition for re-admission to the program will be considered on an individual basis by the program's admissions committee. (A student must go through the College's general admission procedure for readmission to the College if the student has not attended in 12 months or more).

Upon written notification of the program dismissal, the student’s status will be changed by the Registrar’s office to “non-major” status. While in “non-major” status the student will be ineligible for financial aid. The student will be referred for advising by a counselor in the Student Affairs Department and then must submit a Change of Major Request form for another major. The student will have until the last date of the drop-add period in the following semester to submit an approved and signed Change of Major Request form to the Registrar’s office.

RTH Program Additional Standards

1. Pass all BIO prefix courses required within the plan of study with a “C” or better.
2. Complete coursework within the first two years of the plan of study with a cumulative GPA of 2.5 or above to progress to junior status.

Licensing Information

Upon completion of an accredited respiratory therapy program and upon successful completion of the Certified Respiratory Therapist (CRT) examination, the student is eligible to apply for licensure to practice in any state in which they plan to obtain

employment. In the Commonwealth of Virginia, licensure can be obtained by applying to the Virginia State Board of Medicine. Following completion of the CRT examination, the student is able to take the Registered Respiratory Therapist (RRT) Examinations to be certified as a Registered Respiratory Therapist.

Bachelor of Science in Respiratory Therapy
Program of Study (125 credit hours)

Course Number	Course Name	Credit Hours
Semester 1		
GEN 101	Freshman Seminar	3
ENG 111	Grammar and Composition I	3
ELE	Elective	3
ELE	Elective	3
	TOTAL	**12**
Semester 2		
ENG 112	Grammar and Composition II	3
PHL 115	Foundations of Ethics	3
HLT 215	Medical Terminology	3
ELE	Elective	3
	TOTAL	**12**
Semester 3		
BIO 211/211L	Anatomy and Physiology I	4
ELE	Humanities Elective	3
MTH 165	College Algebra	3
ELE	Elective	3
	TOTAL	**13**
Semester 4		
IPE 200	Fundamentals of Teamwork	1
BIO 212/212L	Anatomy and Physiology II	4
ELE	Social Science Elective	3
ELE	Elective	3
ELE	Elective	3
	TOTAL	**14**
Semester 5		
IPE 300	Interprofessional Healthcare Discovery and Collaboration	1
RTH 301	Patient Assessment	2
RTH 302/302L	Respiratory Therapy Procedures I/Lab	4
RTH 304	Cardiopulmonary Anatomy & Physiology	3
RTH 305	Integrated Sciences for Respiratory Therapy	3
RTH 308C	Clinical Practice I	1

	TOTAL	**14**
Semester 6		
BIO 253/253L	Microbiology	4
RTH 310	Cardiopulmonary Pharmacology	3
RTH 311/311L	Respiratory Therapy Procedures II/Lab	4
RTH 318C	Clinical Practice II	3
RTH 332	Pulmonary Function Studies	2
	TOTAL	**16**
Semester 7		
BIO 300	Pathophysiology	3
HCM 301	U.S. Healthcare Systems	4
RTH 320/320L	Mechanical Ventilation/lab	4
ELE	Elective	1
	TOTAL	**12**
Semester 8		
MTH 301	Statistical Methods for Healthcare or Statistics Class	3
IPE 400	Interprofessional Healthcare Experiences	1
RTH 330	Cardiopulmonary Pathophysiology	3
RTH 420	Neonatal/Pediatric Respiratory Therapy	3
RTH 430	Patient Case Management I	3
RTH 448C	Clinical Practice III	3
	TOTAL	**16**
Semester 9		
IDS 453	Research Methods	3
RTH 410	Patient Education and Rehabilitation	3
RTH 450	Patient Case Management II	3
RTH 478C	Clinical Practice IV	3
RTH 488C	Clinical Specialty Rotation	1
RTH 490	Professional Seminar	3
	TOTAL	**16**
	TOTAL CREDITS	**125**
	Credits from Non-major	**68**
	Credits from Interprofessional Education Courses:	**3**
	Credits from major	**54**

Associate of Applied Science in Occupational Therapy Assistant

Introduction

The mission of the Occupational Therapy Assistant Program at Jefferson College of Health Sciences is to prepare within a scholarly environment, ethical, knowledgeable, competent, and caring occupational therapy assistants who value lifelong learning, client advocacy, and evidence-based practice as an instrument and testament of professionalism.

"Occupational therapy is based on the belief that occupations may be used for health promotion and wellness, remediation or restoration, health maintenance, disease and injury prevention, and compensation/adaptation. The use of occupation to promote individual, community, and population health is the core of occupational therapy practice, education, research, and advocacy."

"The focus and outcome of occupational therapy are individuals' engagement in meaningful occupations that support their participation in life situations. Occupational therapy practitioners conceptualize occupations as both a means and an end to therapy. That is, there is therapeutic value in occupational engagement as a change agent, and engagement in occupations is also the ultimate goal of therapy."

American Occupational Therapy Association. (2011). The philosophical base of occupational therapy. *American Journal of Occupational Therapy*, *65 (6 Suppl.)*

To accomplish the goals of the profession as well as the mission of our program, the Occupational Therapy Assistant program at Jefferson College of Health Sciences offers a two-year Associate of Applied Science degree program designed to prepare students for careers as occupational therapy assistants (OTAs). The OTA works under the supervision of an occupational therapist to assist in the evaluation process and carry out interventions in a wide variety of clinical settings. OTAs have opportunities to obtain employment in current and emerging practice settings such as, but not limited to hospitals, skilled nursing facilities, rehabilitation centers, outpatient clinics, private practices, home health agencies, community agencies, and schools.

Program Accreditation

The Occupational Therapy Assistant Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Suite 200, Bethesda, MD 20824-1220. AOTA's telephone number is (301) 652-AOTA. Website: *http://www.aota.org and www.acoteonline.org*

Program Outcomes

To fulfill its mission, the OTA program strives to produce graduates who:

1. demonstrate an understanding of the professions' code of ethics as established by AOTA.
2. demonstrate competency in the technical skills necessary to perform entry-level OTA intervention.
3. demonstrate interaction that reflects respect for others' cultural backgrounds and behaviors.
4. communicate effectively by conveying and receiving information with appropriate technology.
5. demonstrate a basic appreciation for the research process and evidence-based practice.
6. advocate for the effective delivery, use, and benefits of occupational therapy services.
7. act as advocates for the clients for whom occupational therapy intervention is provided.
8. desire to be of service to their communities and the profession.
9. Acknowledge the benefits of interdisciplinary and interprofessional intervention.

Minimum Performance Standards

In compliance with the Americans with Disabilities Act, occupational therapy students must be, with reasonable accommodations, physically and mentally capable of performing minimal standards to meet program objectives in all learning environments, i.e. classroom, laboratory, fieldwork, and community experiences. Any student who may require accommodations should schedule an appointment with Coordinator of Services for Students with Disabilities. The Minimum Performance Standards for admission and progression include:

1. Attend and successfully pass all occupational therapy assistant, general education, and supporting courses, and maintain a minimum grade point average of 2.0.
2. Attend and successfully pass all Level I and Level II fieldwork experiences.
3. Comprehend and use the English language, both verbally and in writing, in a way that is understandable and adheres to English rules of grammar, spelling, punctuation, and sentence and paragraph composition and that reflects an understanding of complex and technical information.
4. Communicate by completing written assignments in standard organized English in a timely manner.
5. Use professional terminology correctly and accurately interpret its meaning to others.
6. Demonstrate clinically appropriate judgment, flexibility, problem solving, and reasoning skills to achieve the learning objectives and fulfill responsibilities of the academic program and fieldwork sites.

7. Attend to, prioritize, and complete multiple task responsibilities in an effective, accurate, and timely manner.
8. Apply effective and therapeutic teaching, dyadic, and group skills to complete the learning objectives and responsibilities of the academic program and the fieldwork sites.
9. Demonstrate accurate, comprehensive documentation skills that adhere to agency, funding, and occupational therapy guidelines.
10. Demonstrate sensorimotor skills, mobility, and general endurance necessary to effectively and safely complete the learning tasks, contribute to the occupational therapy evaluation process, and implement intervention techniques in the academic and fieldwork environments.
11. Navigate to and around the learning environments associated with the academic and fieldwork components of the program.
12. Demonstrate personal, consumer, and environmental safety precautions.
13. Work independently and collaboratively to achieve the learning objectives and responsibilities of the academic program and fieldwork sites.
14. Demonstrate effective and adequate coping skills regarding the learning processes, fieldwork experiences, supervisory relations, interpersonal interactions, and professional and personal responsibilities associated with an intensive educational program, in a timely and professional manner.
15. Abide by the Occupational Therapy Code of Ethics, Standards of Practice, and policies and procedures of the College, the Program, and previously stated learning environments.
16. Respect and demonstrate sensitivity to the contributions and cultural diversity of peers, faculty, supervisors, other professionals, clients, their significant others, and the public.
17. Participate appropriately and effectively in the assessment and direction of one's own learning processes and needs.
18. Modify one's own behavior/performance in response to feedback from instructors, fieldwork educators, and peers to achieve the learning objectives and the responsibilities of the program and fieldwork sites.

Working Conditions:

1. Exposure to contagious diseases, body fluids, and cleaning materials.
2. Patient care environments, office environments, and patients' homes.
3. Out-of-doors in all weather conditions as required to complete learning objectives and activities.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the *Occupational Therapy Assistant Program Handbook*. This handbook is available electronically on the OTA Program’s Blackboard site.

Program Progression

The OTA program of study is designed to occur in a specific sequence. Courses with the OTA prefix must be taken sequentially, in the order and during the semester presented in the program of study. It is critical that information learned be retained, as it then becomes the building blocks for acquisition of future skills. All courses continue to build on one another until the entry-level skills of an occupational therapy assistant are achieved.

Program Probation:

- Failure to achieve a grade of C or better in courses with an OTA prefix.
    - *Students are not allowed to take OTA prefix courses, however are able to continue with general education courses following prerequisite and corequisite requirements.*

- Failure to achieve a grade of C or better in BIO 211/L, and BIO 212/L.
    - *Students are allowed to take OTA prefix courses if BIO courses were taken **prior to** the required semester.*

    - *Students are not allowed to take OTA prefix courses, if BIO courses were taken **during** the required semester. Students are able to continue with general education courses following prerequisite and corequisite requirements.*

Note: Program probation results if a student receives a grade less than C in two courses with an OTA and/or BIO prefix within the same semester.

Program Dismissal:
Program dismissal results if a student receives 2 or more grades lower than a C in courses with OTA and/or BIO prefixes across the plan of study. Students dismissed from the OTA Program are not allowed to continue within the OTA program or be readmitted to the OTA program. The Department of Student Affairs will assume academic advising at this point.

The OTA Program reserves the right to place students on probation or dismiss them from the Program, if they demonstrate unprofessional behaviors.

A three-year track is also offered for individuals who wish to extend their academic program. Students should work closely with their advisor to develop an adjusted program of study. Courses must continue to be taken in sequence, noting appropriate prerequisite and corequisite courses. Typically, the three-year track allows students to take general education courses the first year and OTA

courses the second and third years. All college and program policies apply to this three year track plan of study.

Certification and Licensure Information

Upon graduation from the Program, graduates are eligible to take the national certification examination for the Occupational Therapy Assistant, administered by the National Board for Certification in Occupational Therapy (NBCOT). Information about the National Certification Exam can be found at *http://www.nbcot.org.*

After notification of passing the exam, the individual is a Certified Occupational Therapy Assistant (COTA). Most states, including Virginia, require licensure in order to practice, and state licenses are usually based on the results of the NBCOT Certification Examination. Each state has its own criteria for granting licensure. Graduates who plan to obtain a license from other states, must contact that state's licensing agency. Information about licensure for Virginia Occupational Therapy Assistants can be found at *http://www.dhp.virginia.gov/medicine/*.

NOTE: NBCOT's certification examination application contains "Character Questions" that must be answered by all exam candidates applying for the certification examination. Applicants who answer "yes" to any of these questions must look for further detail regarding documentation requirements to be submitted to and reviewed by NBCOT before the examination application will be approved. For early review, an individual who is considering entering an educational program or has already entered an educational program can have his or her background reviewed prior to actually applying for the exam by requesting an early determination review. There is a fee for this review. For additional information contact *http://www.nbcot.org* , click on "Certification Candidates," then "Character Review, and "Early Determination Review".

Associate of Applied Science in Occupational Therapy Assistant

Program of Study (72 credit hours) *Major specific (OTA) courses must be taken sequentially in the order presented*

PREFIX	COURSE TITLE	CREDITS
Semester 1		
GEN 100	Academic Seminar	1
BUS 111 or IPE 200	Introduction to Computers or Fundamentals of Teamwork	1
HLT 215	Medical Terminology	3
PSY 120	Introductory and Developmental Psychology	4
BIO 211/211L	Anatomy & Physiology I	4
OTA 110	Human Movement for Occupation I	1

OTA 120	Foundations of the Profession I	3
	Total Credits:	**17**
Semester 2		
PSY 240	Abnormal Psychology	3
BIO 212/212L	Anatomy & Physiology II	4
OTA 130/130L	Human Movement for Occupation II	3
OTA 140	Foundations of the Profession II	3
OTA 170/170L	Behavioral Health – Principles & Techniques	3
OTA 170C	Behavioral Health Fieldwork – Level I	1
	Total Credits:	**17**
Semester 3		
ENG 111	Grammar and Composition I	3
PHL 115	Foundations of Ethics	3
SOC 213	Social Issues in Healthcare Delivery	3
OTA 201L	Therapeutic Media Lab	1
OTA 203	Pathologic Conditions – Effects on Occupation	2
	Total Credits:	**12**
PREFIX	**COURSE TITLE**	**CREDITS**
Semester 4		
OTA 220/220L	Pediatrics – Principles &Techniques	4
OTA 220C	Pediatric Fieldwork – Level I	1
OTA 235/235L	Physical Dysfunction – Principles & Techniques	5
OTA 235C	Adult/Geriatric Fieldwork – Level I	1
OTA 255/255L	Assistive Technology	2
	Total Credits:	**13**
Semester 5		
OTA 270C	Fieldwork Level II-A	6
OTA 271C	Fieldwork Level II-B	6
OTA 285	Professional Seminar	1
	Total Credits:	**13**
	Total Credits:	**72**
	Credits from Non-Major Courses	**29**
	Credits from Major Courses	**43**

Associate in Applied Science in Physical Therapist Assistant

Introduction

The Physical Therapist Assistant Program at the Jefferson College of Health Sciences (Jefferson) is a two-year, five-semester Associate in Applied Science degree program. The blend of classroom, lab, and clinical components is designed to prepare students for careers as Physical Therapist Assistants.

A Physical Therapist Assistant (PTA) is a highly educated and skilled professional who works under the supervision of a Physical Therapist to provide physical therapy interventions. Physical Therapist Assistants work with a wide range of patients in many types of venues including acute care hospitals, skilled nursing facilities, home health, and outpatient clinics. Duties of a PTA may include, but are not limited to, rehabilitation of adult and pediatric patients with orthopedic, neurological, traumatic injuries and various medical -surgical conditions through application of therapeutic exercise, physical agents, functional activities and education. The scope of work of the PTA is dependent upon the state in which the PTA practices.

Program Philosophy and Mission

The Physical Therapist Assistant Program at the Jefferson College of Health Sciences has as its foundation the doctrine that the physical therapy profession is an essential and worthy component of society, particularly that aspect of society that deals with the physical health and well-being of society's members. The Jefferson provides a program for the Physical Therapist Assistant student that strives to graduate individuals who are competent, ethical and qualified to assume roles in the healthcare field as Physical Therapist Assistants.

The mission of Physical Therapist Assistant Program is to provide a curriculum which meets the needs of its students and graduate employers in its service area through quality didactic coursework and clinical education experiences that are reflective of contemporary physical therapy practice. The Program is committed to preparing competent, ethical and knowledgeable graduates who are life-long learners.

Program Accreditation

> The Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA), 1111 North Fairfax Street, Alexandria, VA 22314, Phone 703/684-7282, e-mail, *accreditation@apta.org*, website: *http://www.capteonline.org*.

Program Outcomes

Graduates of the Physical Therapist Assistant program will be able to

1. begin work as an entry-level Physical Therapist Assistant,
2. display ethical and professional behavior and awareness in patient care
3. collect data on patient through interviews, observations, screenings, and the administration of prescribed tests and assessments within the scope of work of the Physical Therapist Assistant,
4. provide physical therapy services as specified in the plan of care prescribed by the Physical Therapist, including modifying treatment techniques as indicated with the plan of care and within the parameters of state law and the scope of work of the Physical Therapist Assistant,
5. perform in a safe and effective manner within the scope of work of the Physical Therapist Assistant,
6. appropriately interact with patients and families,
7. understand basic principles and levels of authority and responsibility as it relates to functioning as an entry-level Physical Therapist Assistant,
8. appreciate the responsibility for continued personal and professional growth and a desire for life-long learning, and
9. demonstrate appropriate and effective, written, oral and non-verbal communications.

Minimum Performance Standards

Technical Standards

The Physical Therapist Assistant Program has identified technical standards that PTA students are expected to possess. These standards reflect reasonable expectations of the PTA student for the performance of common physical therapy functions and what may be required of a PTA on the job. They are not all inclusive nor do they reflect what may be required for employment as a graduate PTA.

Sensory/Observation Skills: ability to see, hear and feel in order to assess patient condition, provides interventions, and assesses patient response to treatment.

Communication Skills: ability to communicate in English, both orally and in writing. Must have sufficient communication skills (nonverbal, speech, reading and writing) to interact with individuals and communicate effectively.

Motor Skills: must have motor control to be able to lift, carry, adjust and use equipment, perform physical therapy tasks such as patient transfers, provide for patient's safety, and the physical endurance to work a 40 hour work week.

Intellectual Conceptual Skills: must have the ability to pass courses in a rigorous program, manage time effectively, the ability to concentrate with distractions, demonstrate critical thinking skills and problem solving skills, prioritize, collect, analyze and assess data, perform complex tasks or follow complex instructions.

Behavioral Social Skills: must interact appropriately with all individuals and demonstrate good judgment, maturity, and possess emotional health and stability to cope effectively with the stress of academic demands and clinical situations.

A deficiency in the abilities listed above can severely diminish a student's chances of success in school and in the profession. The PTA Program faculty will assist a student's compliance with these technical standards, but the responsibility for meeting the technical standards rests with the student.

If a student cannot demonstrate the ability to meet the technical standards, it is the responsibility of the student to request appropriate accommodations. The College will determine whether it agrees that the student can meet the technical standards with reasonable accommodation. This includes a review as to whether the accommodations requested are reasonable, taking into account whether accommodations would jeopardize clinician or patient safety, the institution, or the educational process of the student, including all coursework, and clinical experiences deemed essential for graduation.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the Physical Therapist Assistant Program Student Handbook. This handbook is available electronically on the program blackboard site and may be requested
from the department secretary.

Program Progression

Jefferson Curriculum Requirement: PTA courses (with a PTA prefix) must be taken in the sequence listed. Students must successfully complete the first-year courses before advancing to the second year. The student must achieve a

minimum grade of *C* in the professional courses, as well as meeting prerequisite or corequisite requirements in order to advance to the next semester. Please refer to the course descriptions published in the catalog for co-requisite and prerequisite requirements

Licensing Information
In the final semester of the PTA Program, students will be provided information and assistance in completing license exam applications. After successfully completing all required coursework in the PTA Program, an Associate in Applied Science degree in Physical Therapist Assisting is awarded. This degree allows the student to sit for the State PTA licensure exam. Each state has its own criteria for granting licensure (some states do not license PTAs). If you plan to obtain a license from other states, you will need to contact that state's licensing agency.

Each state determines laws, rules and regulations governing the practice of physical therapy. This includes levels of supervision, restrictions on performance of physical therapy interventions and practice settings for the PTA. States also determine their requirements for initial licensure, continued competency and licensure renewal.

Details about the PTA licensing examination and contact information for state licensing agencies can be found on the Federation of State Boards of Physical Therapy website: *www.fsbpt.org*.

Associate in Applied Science in Physical Therapist Assistant
Program of Study (74 credit hours)
Classes must be taken sequentially in the order presented.

PREFIX	COURSE TITLE	CREDITS
Semester 1		
BIO 211/211L	Anatomy & Physiology I and Lab	4
BUS 111 or IPE 200	Introduction to Computers or Fundamentals of Teamwork	1
ENG 111	Grammar and Composition I	3
GEN 100	Academic Seminar	1
PSY 120	Introductory and Developmental Psychology	4
PTA 106/106L	Basic Skills for the Physical Therapist Assistant	3
PTA 110	Integrated Sciences for the PTA	2
	Total Credits:	**18**
Semester 2		
BIO 212/212L	Anatomy & Physiology II and Lab	4
ELECTIVE	General Elective	1
PHL 115	Foundations of Ethics	3
PTA 108L	Clinical Assessment Skills	2
PTA 150/150L	Functional and Applied Anatomy	4
SOC 213	Social Issues in Healthcare Delivery	3
	Total Credits:	**17**
Semester 3		
HPE 104	Therapeutic Massage I	1
HPE 105	Therapeutic Massage II	1
PTA 161/161L/161C	Principles and Procedures of Physical Therapy I	6
PTA 201/201L	Principles of Therapeutic Exercise	2
	Total Credits:	**10**
Semester 4		
PTA 203	Pathology for the Physical Therapist Assistant	2
PTA 221	Psychosocial Aspects of Therapy for the PTA	2
PTA 235/235L	Principles & Procedures of Physical Therapy II	4
PTA 236/236L	Principles & Procedures of Physical Therapy III	4
PTA 251C	Clinical Education I	3
	Total Credits:	**15**
Semester 5		
PTA 241/241L	Pediatric Physical Therapy	**2**
PTA 242/242L	Adult Neurological Rehabilitation	**3**
PTA 252C	Clinical Education II	**7**
PTA 285	Professional Seminar	**2**
	Total Credits:	**14**
	Total Credits:	**74**
	Credits from Non-Major Courses	**26**
	Credits from Major Courses	**48**

Associate in Applied Science in Respiratory Therapy

(No longer accepting applications; program closes May 2015)

Introduction

The Associate of Applied Science in Respiratory Therapy (RTH) prepares students to become valuable and dedicated members of the healthcare team. RTH students obtain both the knowledge and the skills needed to practice cardio-pulmonary therapy through our program of didactic, laboratory and clinical preparation.

Respiratory therapists work with physicians and allied health professionals to diagnose and treat patients with disorders associated with the respiratory and cardiovascular systems. Therapists may be required to exercise considerable independent clinical judgment under the direct or indirect supervision of a physician. Therapists are trained to act as technical resource persons for both physicians and other health care professionals. They are members of the response teams that handle patient's respiratory and cardiac emergencies and are responsible for managing ventilators for patients on life support. They work in all areas of the hospital including medical floors, adult, neonatal, and pediatric intensive care units, emergency rooms, and aeromedical transport. They also work in physician offices, long term care, and home care.

Mission Statement

The mission of the RTH program is to prepare professional, ethical, knowledgeable, competent, and compassionate registered respiratory therapists.

Program Accreditation

The Respiratory Therapy program is accredited by the Committee on Accreditation for Respiratory Care (CoARC), 1248 Harwood Road, Bedford, Texas 76021-4244, Phone 817-283-2835.

Program Outcomes

Upon completion of the associate of applied science in Respiratory Therapy program our graduates will demonstrate competency in cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory therapy as performed by registered respiratory therapists. Graduates will be able to:

1. demonstrate critical thinking skills with a comprehensive knowledge base (cognitive skills) by assessing the patient's condition, developing a plan of treatment, and modifying that treatment as needed so that safe and quality cardio-respiratory therapy is given,

2. demonstrate competency in diagnostic and therapeutic clinical (psychomotor) skills necessary to perform the expanding number of

procedures that fall under cardiopulmonary care,

2. demonstrate professional, ethical, caring, and culturally competent behaviors (affective skills) toward the patient, family members, and other members of the healthcare team,

3. demonstrate effective professional communication, and

4. integrate health promotion and disease prevention strategies into current healthcare practice while focusing on quality and cost-effective protocols.

Minimum Performance Standards

In compliance with the Americans with Disabilities Act, respiratory therapy students must be, with reasonable accommodations, physically and mentally capable of performing minimal standards to meet program objectives. Any student who may require accommodations should schedule and appointment with the Coordinator of Services for Student Disabilities. The Minimum Performance Standards for Admission and Progression include:

Essential Mental Abilities:

- Follow instructions and rules.
- Maintain reality orientation accompanied by short and long term memory.
- Apply basic mathematical and algebraic skills without the use of a calculator.
- Demonstrate safe practice within the defined clinical time period.
- Critical thinking ability sufficient for clinical judgment and for making quick lifesaving decisions.

Essential Communication Skills:

- Speak clearly in order to communicate with patients, families, healthcare team members, peers and faculty.
- Interpersonal abilities sufficient to interact with diverse individuals, families and groups.
- Communication abilities sufficient for clear interaction with others in verbal and written form.
- Ability to independently read and accurately interpret written communications (e.g., test questions, MD orders).

Essential Physical Abilities:

- Gross and fine motor abilities sufficient to provide safe and effective care.
- Stand and walk for eight to twelve hours/day.
- Walk quickly in response to emergencies and lifesaving procedures.
- Bend, squat, kneel, and twist upper and lower back.
- Assist in lifting or moving clients of all age groups and weights.
- Lift small equipment up to 35 pounds.

- Perform CPR (e.g., move above patient to compress chest and manually ventilate patient).
- Work with arms fully extended overhead.
- Use hands for grasping, pushing, pulling and fine manipulation.
- Demonstrate eye/hand coordination for manipulation of equipment (e.g., syringes, procedures, etc.).
- Auditory abilities sufficient to hear alarms, beepers, and pages.
- Ability to withstand sudden alarms, sounds, and flashing lights.
- Auditory abilities to monitor breath sounds with a stethoscope and assess health needs.
- Visual abilities to see all colors of the spectrum, distinguish calibrated markers of 0.1 mm, identify digital displays and controls in low light conditions, determine depth of instrumentation placement, and read small print on medicine containers.
- Tactile ability sufficient for physical assessment.

Accommodations

- Patient safety is the first priority. If you have a condition which may affect a patient's life or safety, this condition should be discussed with the Program Director.
- Any student who may require accommodations should schedule an appointment with the Program Director.

Professional Behavior:
The faculty expects students to exhibit professional behavior. The following is a list of expected professional behaviors:

- Demonstrates safety and honesty in all situations.
- Incorporates professional and ethical standards, including the Patient Bill of Rights, and the AARC Statement of Ethics and Professional Behavior.
- Incorporates respiratory therapy policies and procedures, standards of care, and clinical practice guidelines as appropriate.
- Demonstrates professional demeanor (e.g., dress code and smoking policies per college and program handbook, respect for others, accepts criticism, cooperative, controls temper, attentive and uses professional language).

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the Respiratory Therapy Program Handbook. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

Program Progression

In addition to the “Minimum Performance Standards” listed above, RTH students must adhere to the following college probation and dismissal policies and the RTH program standards to remain in good academic standing:

Academic Probation from a Program / Major

Should a student earn less than a minimum grade of “C” in a program-specific course, or earn an “Unsatisfactory” in a clinical component, the student will be placed on program probation and may be ineligible to take further program - specific courses. The student may retake the course during the next academic session in which the course is offered. When the student completes the course with a grade of “C” or better or “Satisfactory,” probationary status will be removed. If the student is otherwise eligible to remain at the College during program probation, the student may continue to be enrolled in general education courses.

Academic Dismissal from a Program/Major

An unsatisfactory evaluation is a course grade of "D” or "F" and/or a clinical “Unsatisfactory.” The accumulation of two unsatisfactory final course grades, either sequentially or concurrently, in program-specific courses will result in program dismissal.

Even if the student has retaken a program-specific course in which an initial unsatisfactory evaluation was received, that initial unsatisfactory evaluation will still count in the accumulation of two unsatisfactory evaluations.

Petition for re-admission to the program will be considered on an individual basis by the program's admissions committee. (A student must go through the College's general admission procedure for readmission to the College if the student has not attended in 12 months or more).

Upon written notification of the program dismissal, the student’s status will be changed by the Registrar’s office to “non-major” status. While in “non-major” status the student will be ineligible for financial aid. The student will be referred for advising by a counselor in the Student Affairs Department and then must submit a Change of Major Request form for another major. The student will have until the last date of the drop-add period in the following semester to submit an approved and signed Change of Major Request form to the Registrar’s office.

RTH Program Additional Standards

1. Pass all RTH courses with a “C” or better or a “Pass” grade if applicable.
2. Pass all BIO prefix courses with a “C” or better.
3. Pass IDS 140 with a “C” or better.

Licensing Information

Upon completion of an accredited respiratory therapy program and upon successful completion of the Certified Respiratory Therapist (CRT) examination, the student is eligible to apply for licensure to practice in any state in which they plan to obtain employment. In the Commonwealth of Virginia, licensure can be obtained by applying to the Virginia State Board of Medicine. Following completion of the CRT examination, the student is able to take the Registered Respiratory Therapist (RRT) Examinations to be certified as a Registered Respiratory Therapist.

Associate of Applied Science in Respiratory Therapy
Program of Study (80 credit hours)
All BIO and RTH courses must be taken sequentially in the order presented.

PREFIX	COURSE TITLE	CREDITS
Semester 1		
BIO 211/211L	Anatomy &Physiology I	4
BUS 111	Introduction to Computers	1
ENG 111	Grammar & Composition I	3
GEN 100	Academic Seminar	1
IDS 140	Integrated Sciences for Healthcare	3
RTH 104/104L	Introduction to Respiratory Therapy	4
	Total Credits:	**16**
Semester 2		
BIO 212/212L	Anatomy & Physiology II	4
PHL 115	Foundations of Ethics	3
RTH 105/105L	Fundamentals of Respiratory Therapy	4
RTH 110C	Clinical Practice I	3
RTH 118	Cardiopulmonary Anatomy & Physiology	3
	Total Credits:	**17**
Semester 3		
BIO 253/253L	Microbiology	4
RTH 121	Respiratory Pharmacology	3
RTH 200	Respiratory Pathophysiology	3
RTH 249/249L	Introduction to Mechanical Ventilation	4
	Total Credits:	**14**
Semester 4		
ELE (PSY)	Psychology Elective	3
RTH 201	Pulmonary Function Studies	2
RTH 220C	Clinical Practice II	3
RTH 241	Patient Education & Health Promotion	2
RTH 252	Pediatrics & Neonatology	3
RTH 254	Critical Care I	3
	Total Credits:	**16**
Semester 5		
RTH 230C	Clinical Practice III	3

RTH 255	Critical Care II	3
RTH 260	Advanced Life Support	2
RTH 265	Advanced C/P Procedures & Monitoring	3
RTH 285	Professional Seminar	3
SOC 213	Social Issues in Healthcare Delivery	3
	Total Credits:	**17**
	Total Credits:	**80**
	Credits from Non-Respiratory Courses	**29**
	Credits from Respiratory Courses	**51**

Associate in Applied Science in Surgical Technology

Introduction

The Surgical Technology program prepares students to become an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings. The Surgical Technology (ST) Program prepares competent entry-level surgical technologists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. The ST program builds upon a strong foundation of general education courses. The program provides a balanced approach of theoretical and practical application in the classroom, laboratory, and clinical settings. The clinical environment allows the student to apply theory and practice in state-of-the-art surgical settings. The program provides students with the opportunity to develop the knowledge, skills and behaviors necessary for entry-level employment as surgical technologists, acceptance as a professional, and career advancement.

The surgical technologist's responsibilities include sterilization of supplies and instruments, as well as helping to prepare the operating room by selecting and opening sterile supplies, assembling, adjusting, and checking non-sterile equipment and specialized equipment such as robotic and laser devices to ensure they are working properly before surgery. During a surgical procedure, the technologist is responsible for assembling, checking and passing sterile instruments and devices into the hands of the surgeon and assisting with the procedure. Other common responsibilities include operating sterilizers, lights, suction equipment, electrosurgical units, endoscopic devices and various other types of equipment.

Program Accreditation

Jefferson College of Health Sciences has degree-granting authority accorded by the State Council of Higher Education in Virginia (SHCEV) and is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACS CoC).The Surgical Technology Program has been approved by SACS CoC.

Program Outcomes (Learning Objectives):

Upon program completion, the graduate will be able to:

- Correlate the knowledge of anatomy, physiology, pathophysiology, and microbiology to their role as a Surgical Technologist.
- Demonstrate a safe and professional level of practice and knowledge in their role as a Surgical Technologist.
- Acquire an understanding of the ethical, legal, moral, and medical values related to the patient and the surgical team during the perioperative experience.
- Correlate the elements, action, and use of medications and anesthetic agents used during the perioperative experience.
- Implement safe practice techniques in regard to perioperative routines, patient transportation, positioning, and emergency procedures.
- Integrate principles of surgical asepsis as part of the perioperative experience.
- Accurately apply knowledge and skills of a professional Surgical Technologist to address the biopsychosocial needs of the surgical patient.
- Perform proficiently and competently as an entry-level Surgical Technologist in the cognitive, psychomotor, and affective learning domains.
- Exhibit accountability for continued personal and professional growth and a desire for life-long learning.

Minimum Performance Standards

In compliance with the Americans with Disabilities Act, surgical technology students must be, with reasonable accommodations, physically and mentally capable of performing minimal standards to meet program objectives. The Minimum Performance Standards for Admission and Progression include:

Essential Mental Abilities:

1. Follow instructions and rules.
2. Maintain reality orientation accompanied by short and long term memory.
3. Apply basic mathematical skills.
4. Demonstrate safe practice within the defined clinical time period.
5. Display gross and fine motor abilities sufficient to provide safe and effective surgical care.
6. Utilize sufficient critical thinking abilities for clinical judgment.

Essential Communication Skills:

1. Speak clearly in order to communicate with patients, families, healthcare team members, peers and faculty.

2. Effectively utilize interpersonal abilities to interact with diverse individuals, families and groups.
3. Demonstrate communication abilities sufficient for clear interaction with others in verbal and written form.
4. Read and accurately interpret written communications (e.g., test questions, written surgeon's preference cards, orders, etc.) without assistance.

Essential Physical Abilities:

1. Stand and walk for prolonged periods from one area to another over an eight to twelve hour period.
2. Bend, squat and kneel.
3. Lift and move surgical instrument trays of 25 pounds and move equipment.
4. Assist in lifting or moving clients of all age groups and weights.
5. Perform CPR (e.g., move above patient to compress chest and manually ventilate patient).
6. Work with arms fully extended.
7. Use hands for grasping, pushing, pulling and fine manipulation.
8. Demonstrate eye/hand coordination for manipulation of instruments and equipment.
9. Utilize auditory abilities sufficient to accurately hear speech during surgical procedures.
10. Demonstrate visual abilities sufficient for observation necessary for participating in surgical procedures.
11. Display sufficient tactile abilities for safe instrument handling.

Accommodations

Any student who may require accommodations should refer to the Jefferson Student Handbook. Students should contact the College's Disability Coordinator in the Student Affairs Department to coordinate reasonable accommodations and discuss documentation.

Academic Policies
In addition to those policies published in the Jefferson Catalog and Jefferson Student
Handbook, students are expected to follow the program policies as published in the *Surgical Technology Program Student Handbook*. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

To register for the first surgical technology courses the student must meet the following criteria:

- A cumulative GPA of 2.0 or higher
- Completion of all required prerequisite courses in the program of study.

- A “C” or higher in all required science courses.
- Required science courses must have been completed within the past five (5) years.

Once enrolled in the first surgical technology course, ST students have up to five (5) years to complete degree requirements.

Program Progression

The ST program of study is designed in a specific sequence. Earlier surgical technology courses (with a SUR prefix) serve as a foundation for later courses and must be taken sequentially. Students must successfully complete the courses in each semester as well as meet prerequisite or corequisite requirements in order to advance to the next semester. Please refer to the course descriptions published in the catalog for corequisite and prerequisite requirements

Any student admitted to the program must maintain satisfactory progress and be considered in good academic standing to remain in the program. Satisfactory progress requires a minimum of final grade of “Satisfactory” in clinical courses, a “C” in all required science and professional courses (SUR prefix) and a cumulative Grade Point Average (GPA) of at least 2.0.

Clinical Case Requirements

During the Surgical Technology program students will participate in surgical procedures at clinical sites as required by the ARC/STSA.

- The total minimum number of cases that each student must complete is 120.
- Students are required to complete a minimum of thirty (30) cases in General Surgery. Twenty (20) of these cases should be in the First Scrub Role.
- Students are required to complete a minimum of ninety (90) cases in various other surgical specialties. Sixty (60) of these cases should be in the First Scrub Role. Cases must be evenly, but not necessarily equally distributed between a minimum of at least five (5) surgical specialties. However, fifteen (15) First or Second Scrub cases is the maximum number of cases that can be counted in any one surgical specialty.
- Diagnostic endoscopy cases and vaginal delivery cases are not mandatory. Up to ten (10) diagnostic endoscopic cases and five (5) vaginal delivery cases can be counted towards the maximum number of Second Scrub Role cases.
- Observation cases should be documented but do not count towards the one hundred twenty (120) required cases.

Student Work Policy:
All student activities associated with the curriculum, especially while students are completing clinical rotations, will be educational in nature. Students will not receive monetary remuneration during this educational experience, nor will the student be substituted for hired staff personnel within the clinical institution in the capacity of a surgical technologist.

Students are permitted to work during times when they are not in classes or clinical assignments. Students are expected to make Surgical Technology courses a top priority during completion of the program.

Certification

Graduates of the Surgical Technology Program are prepared to deliver patient-centered care while demonstrating clinical competency, critical thinking skills and caring behaviors within the surgical setting. Graduates will be prepared to meet or exceed the criteria set forth in the current CAAHEP *Standards and Guidelines for the Accreditation of Educational Programs in Surgical Technology* and will be prepared to take the Certified Surgical Technologist (CST)® exam through the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

Associate of Applied Science in Surgical Technology
Program of Study (65 credit hours)

*Courses must be taken sequentially in the order presented. * Prerequisite course marked with an * must be completed prior to the first semester.*

With approval from the Advisor, other prerequisite courses may be taken at a later time.

PREFIX	COURSE TITLE	CREDITS
Prerequisite Courses		
BIO 211/211L	Anatomy &Physiology I*	4
BUS 111	Introduction to Computers	1
ENG 111	Grammar & Composition I	3
GEN 100	Academic Seminar	1
HLT 215	Medical Terminology*	3
IPE 200	Fundamentals of Teamwork	1
	Total Credits:	**13**
Semester 1: Spring		
BIO 212/212L	Anatomy & Physiology II	4
SUR 100	Introduction to Surgical Technology	2
SUR 103/103L	Practices of Surgical Technology	7
SUR 108	Principles of Asepsis	2
	Total Credits:	**15**
Semester 2: Summer		
BIO 253/253L	Microbiology	4
SUR 201	Surgical Procedures I	3
SUR 111C	Surgical Practicum I	3
	Total Credits:	**10**
Semester 3: Fall		
PHL 115	Foundations of Ethics	3
SUR 113	Surgical Pharmacology	2
SUR 210	Surgical Procedures II	3
SUR 214C	Surgical Practicum II	6
	Total Credits:	**14**
Semester 4: Spring		
PSY 101	Introduction to Psychology	3
SUR 221	Surgical Procedures III	3
SUR 215C	Surgical Practicum III	6
SUR 228	Surgical Technology Seminar	2
	Total Credits:	**14**
	Total Credits:	**66**
	Credits from Non-Surgical Tech Courses	**27**
	Credits from Surgical Tech Courses	**39**

Graduate Programs at Jefferson

Graduate Programs

Jefferson College of Health Sciences offers graduate programs in Nursing, Health Administration, Occupational Therapy, and Physician Assistant.

The purpose of graduate education at Jefferson College of Health Sciences is to provide opportunity for advanced study in the healthcare professions. Upon graduation, students will demonstrate fluency in the language of science and inquiry specific to their professional disciplines. Graduates will be prepared to engage in collaborative practice, leadership and scholarship to improve the health of the communities they serve.

The College strives to provide excellence in graduate education in the healthcare disciplines. Upon completion of the requirements for a graduate degree, students will demonstrate a broad knowledge of the literature of their field and the specialized knowledge, skills and critical thinking abilities to practice and contribute to their professions.

The graduate programs emphasize the following as the basis for effective, professional practice:

- leadership
- communication
- technological competency
- interprofessional practice
- information literacy
- evidence-based knowledge and
- ethical practice with respect for diversity

Graduate Admissions

Admission to a graduate program at Jefferson is a competitive process. The candidate must complete the appropriate application process to be considered.

Graduate Admission Process

The application process allows the applicant to manage the collection and submission of all supporting documentation required for application to the graduate programs. In this way, the applicant is assured that the application process is complete (with the exception of test scores).

Each graduate program makes its own admission decisions. Applicants should pay close attention to the requirements for the specific program of interest as specified below. Official transcripts are required.

Application Procedure

The graduate application form is available free online at *www.jchs.edu*. Applicants to the **Health Administration**, **Nursing** and **Occupational Therapy** programs should use this form to begin the graduate application process electronically. There is no application fee when this method is used.

Please submit all required supporting documentation in a single envelope to:

Office of Graduate Admissions
Jefferson College of Health Sciences
101 Elm Ave. S.E.
Roanoke, VA 24013

Applicants for the **Physician Assistant** program must apply through the Central Application Service for Physician Assistants (CASPA). Please see the section below, titled “Master of Science in Physician Assistant” for specific information related to this process.

Graduate Admission Requirements

Master of Health Administration

- The recommended deadline for priority admission is March 15.
- Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher.
- All applicants must have completed a college level statistics course with a grade C or higher prior to or during the first semester of the program.
- Completed recommendation forms from two references.
- A professional resume.

- Students may transfer up to twelve (12) graduate credit hours to the MHA program *(Please refer to the Transfer Credit policy in the Graduate Information, Policies, and Procedures section of this Catalog)*

Applicants are not required to have previous healthcare experience prior to admission, but any student without a minimum of one year of healthcare experience, will be required to take HA 670, a healthcare practicum, prior to graduation.

Master of Science in Nursing: Family Nurse Practitioner

- The recommended deadline for priority admission is November 30
- Graduate of a nationally accredited BSN or MSN nursing program with a minimum cumulative GPA of 3.0 or higher (based on a 4.0 scale)
- Current unrestricted Registered Nurse Licensure in the state or territory in which the student's clinical practice will occur
- A College-level statistics course (3 credits) with a C or higher
- Recommendation forms from three professional references who can address the applicant's potential for advanced practice nursing. At least one reference should come from a former faculty member if possible.
- Curriculum vitae or resume. This document should include education and professional practice.
- Official scores from the Graduate Record Examination or the Miller Analogies Test from the last five years if no master's degree. (School codes: GRE/5099; MAT/2522)
- A written statement describing career goals and how a graduate credential will assist in meeting those goals. The writing style (i.e. grammar, punctuation, spelling, word use) and content of the essay will be used in the overall evaluation of the application.
- A minimum of 2,000 documented hours of nursing practice to have occurred no longer than three years prior to beginning the FNP clinical courses
- Interviews. Selected applicants will be scheduled for a personal interview. Applications received on or before November 30 will be considered first.
- Students may transfer up to six (6) graduate credit hours to the MSN-FNP program. (Please refer to the Transfer Credit policy in the Graduate Information, Policies, and Procedures section of this Catalog.)

Master of Science in Nursing: Nursing Administration

- The recommended deadline for priority admission is March 15
- A Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher

- Current unrestricted Registered Nurse Licensure from any state or territory of the United States
- A College-level statistics course (3 credits) with a C or higher
- Applicants who have earned a bachelor's degree in a field of study other than nursing must meet the following program course prerequisites.
    - Completion of NSG 490, Contemporary Nursing Issues, with a B or better
    - Completion of a college-level research course with a C or better
- Recommendation forms from three professional references who can address the applicant's potential for advanced practice nursing. At least one reference should come from a former faculty member if possible.
- Curriculum vitae or resume. This document should include education and professional practice.
- Official scores from the Graduate Record Examination or the Miller Analogies Test from the last five years if no master's degree. (School codes: GRE/5099; MAT/2522)
- A written statement describing career goals and how a graduate credential will assist in meeting those goals. The writing style (i.e. grammar, punctuation, spelling, word use) and content of the essay will be used in the overall evaluation of the application.
- Students may transfer up to six (6) graduate credit hours to the MSN-NA program. (Please refer to the Transfer Credit policy in the Graduate Information, Policies, and Procedures section of this Catalog.)

Master of Science in Occupational Therapy

- The recommended deadline for priority admission is December 1.
- A Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher
- Completion of the following pre-requisite coursework:
    - 3 credit course in statistics or a research design course.
    - 6-8 credits in courses pertaining to anatomical systems such as human anatomy, kinesiology, human physiology, and exercise science.
    - 3 credit course in sociology or anthropology
    - 3 credit course in human growth and development throughout the lifespan
    - 3 credit course in abnormal psychology
- Completion of Recommendation Forms from three references
- Official scores from the Graduate Record Examination from the last five years. Scores should include the standardized writing sample. (GRE- School Code is 5099)
- Completion of an essay

- Interviews for admission take place on campus. Applicants who are selected to be interviewed will be scheduled for an interview session several weeks ahead of time. Interview sessions begin in January and run through March.
- Transfer credit is not accepted in the MSOT program.

Master of Science in Physician Assistant

Applicants for the MSPA program must apply through the Central Application Service for Physician Assistants (CASPA). *Jefferson does not require a supplemental application*. **DO NOT** send application materials directly to the College or Program. **The application deadline is November 1.** We have a rolling admissions process, i.e., admission decisions are made and decision letters are sent after each interview session instead of all decisions being made at the end of the season.

Outstanding candidates are accepted within 30 days after the interview, so we highly recommend that you apply early. Interviews for admission take place on campus. Applicants who are selected to be interviewed will be informed of their interview session several weeks ahead of time.

The decision to admit a candidate rests with the admissions committee. Decisions are based on grade point average, prerequisites, healthcare experience, essay, Graduate Record Examination (GRE) scores, references, and the interview.

Application Procedure

- **CASPA.** Applicants must apply through CASPA, the Central Application Service for Physician Assistants. Jefferson does not require a supplemental application. *DO NOT* send application materials directly to the College or Program. Deadline for submission is November 1
- **References.** We recommend three references: one each from an academic advisor, a clinical supervisor and an employer. Substitutions may be made if all three are not available, but at least one reference should be from someone familiar with you in a work or professional setting. Submit these directly to CASPA using CASPA's forms.
- **Essay.** The CASPA application includes a written essay, which will be reviewed by our admissions committee. The essay should be of high quality and demonstrate graduate-level writing.
- **Bachelor Degree.** A bachelor degree from a regionally accredited institution is required. We accept degrees from all disciplines provided you meet the Program's course prerequisites.
- **GPA.** *The minimum overall GPA accepted is 2.8 on all undergraduate work. A GPA of at least 3.0 is recommended*. You must have earned a

"C" or better on all prerequisite courses. Pass/Fail or placing out of a required prerequisite is not permitted.

- **Advanced Placement Credit.** Credit for AP courses taken in high school, and appearing on a college transcript will be accepted for prerequisite credit. However, we give no advanced placement or prior learning credit to take the place of PA program coursework. Each PA student must complete the entire curriculum at Jefferson.
- **Transcripts.** Send all transcripts to CASPA, not to the College. Students are to send transcripts to the College only after they are accepted and have paid their deposit.
- **Healthcare Experience.** All successful candidates must have 500 hours of healthcare experience, paid, volunteer, or as a student, prior to enrollment in the PA program. This experience should be in areas with direct patient or client contact, for example, EMT, medical technology, nursing, and phlebotomy. Patient contact in fields such as health education, health promotion, and social work may be considered as long as work was in areas of patient or client services. The 500 hours need not be completed by the time of application. Applicants with formal certifications in a health-related field should provide a copy of license or certification upon request.
- **GRE.** The Graduate Record Exam (GRE) is required and should have been taken within the last five years. The minimum GRE score accepted in the old scoring system is 800. We have not yet established a cutoff for the new GRE scoring system. The applicant must arrange to have GRE scores submitted directly to CASPA. Our Designated Institution (DI) Code is 0597.
- **Prerequisite Courses.** Applicants must have completed the following prerequisite coursework before beginning the program. At least 12 hours of this coursework must have been completed within the past three years.

  - Anatomy and Physiology I & II with lab: 8 hours
  - General Chemistry I & II with lab: 8 hours
  - Biochemistry or Cell Biology: 3 hours
  - Microbiology with lab: 4 hours
  - Genetics or Immunology: 3 hours
  - Statistics: 3 hours
  - Medical Terminology: 1 hour
  - Psychology: 6 hours; at least one upper-level course is required (Abnormal Psychology or Developmental Psychology is accepted as an upper-level course)
  - *Requests for waivers of any of these requirements will be considered on an individual basis, must be made in writing to the program, and must be supported with excellent reasons.*

- **Interviews** for admission take place on campus. Applicants who are selected to be interviewed will be scheduled for an interview session several weeks ahead of time. Interview sessions begin in November.

Graduate Certificate in Biology

- The recommended deadline for admissions is May 15.
- A Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher. *Applicants who have earned a bachelor's degree in a major other than biology must have successfully completed at least 12 credit hours in appropriate biology courses to undertake graduate-level biology courses.*
- Completion of Recommendation Forms from three professional references
- A Professional Resume
- Completion of a Personal Statement explaining the applicant's interest in the program
- Students may transfer up to six (6) pre-approved graduate credit hours to the program *(Please refer to the Transfer Credit policy in the Graduate Information, Policies, and Procedures section of this Catalog)*

Graduate Certificate in Healthcare Administration

- A Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher
- A Professional Resume demonstrating at least two (2) years of work experience in a healthcare organization

Graduate Certificate in Healthcare Informatics

- A Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher
- A Professional Resume demonstrating at least two (2) years of work experience in a healthcare organization

International Applicants

International students must have their transcripts submitted for independent evaluation of equivalency by an acceptable credentialing evaluation agency. The *World Education Service* is suggested. Students for whom English is not their primary language are required to submit their **Test of English as a Foreign Language (TOEFL)** score. The minimum score accepted for admission is 550 for the paper-based test (equivalent requirements are 80 for internet-based and 215 for computer-based tests). We encourage international applicants to have some coursework at an accredited U.S. or Canadian institution. If the student needs an I-20, all other international applicant requirements must also be met. These may be found in the Undergraduate Admissions section of this catalog.

Non-Degree Seeking Students

An applicant who seeks to take up to 12 credits of graduate level coursework at Jefferson College of Health Sciences without applying to a degree program is a non degree-seeking Student. The student must have a minimum of a bachelors degree from a regionally accredited institution.

Your completed application should include:

- Completion of the graduate application (not required of current Jefferson students).
- Meeting with the program director and instructor responsible for the course(s) wishing to enroll in.

Graduate Finances

Please refer to the finances section of the catalog.

Graduate Information, Policies and Procedures

Academic Advising

A graduate academic adviser is assigned to help the student with the program of study. The advisor should approve all academic plans. It is the student's responsibility to schedule advising appointments with the advisor as necessary to plan a course of study to complete a graduate program, or to discuss current academic questions and problems.

Academic Honor Code and Personal Integrity

Jefferson College of Health Sciences expects students to exhibit high levels of integrity in all activities. The College reserves the right to deny admission to or remove students from any program if they have a record of misconduct or demonstrate behavior that would jeopardize their professional performance.

Academic dishonesty will not be tolerated. Academic dishonesty includes, but is not limited to: cheating on an assignment or examination; using materials during a quiz or examination other than those specifically permitted by the instructor; stealing, accepting or studying from stolen quizzes or examination materials; plagiarism; forgery of signatures; falsification of official documents; falsification of data; falsification of clinical records; misrepresentation of academic qualifications; misuse of materials which belong to the College; stealing or copying of computer programs and presenting them as one's own or misrepresenting completion of clinical hours or assignments. Students who violate the Academic Honor Code may receive a failing grade for the assignment or the course. They will not be granted a grade of "W" in the course and may, depending on the nature of the offense, be suspended or dismissed from a program or the College. For additional detail, refer to the *Jefferson Student Handbook*.

Falsification of official documents or misrepresentation of academic qualifications may result in denial or annulment of admission.

It is the student's responsibility to know what constitutes academic dishonesty, cheating or plagiarism.

Academic Responsibility

While Jefferson College of Health Sciences makes every effort to advise and counsel students on their academic programs and academic requirements, it is the student who is ultimately responsible for fulfilling all requirements of a degree.

Adding and Dropping Courses

Adding or dropping courses must be completed in accordance with the designated periods on the official College Calendar. Students must confer with their academic advisor if they desire to add or withdraw from a course.

After the Add/Drop deadline, student may withdraw from a class or classes according to the policies and procedures outlined under *Withdrawal* in this section of the catalog.

Accommodations for Students with Disabilities

Please refer to *Services for Students with Disabilities* under *Student Affairs* in this catalog.

Catalog of Entry

In general, a student must fulfill the degree requirements set forth in the Catalog current during the student's first term enrolled in a graduate program at Jefferson College of Health Sciences. Academic policies amended while a student is enrolled in courses at Jefferson may be deemed to apply regardless of the policies stated in the Catalog at time of entry. The College reserves the right to modify degree requirements from those listed at the time of entry due to curricular exigencies. If students are readmitted, they re-enter under the Catalog in effect at the time of readmission.

Change in Program of Study

Changes in the planned program of study for candidacy must be approved by the academic advisor and program director. Forms for program changes are available in the Registrar's Office.

Course Load

A full-time graduate academic load is a minimum of nine credit hours per semester.

Credit Hours

The semester credit is the standard unit of credit awarded by Jefferson. To provide students time to travel between courses, one hour equals 50 minutes. One semester credit is equal to 15 hours of instruction. For on-campus laboratory courses, one semester credit is equal to 30 hours of instruction. The semester credit hours awarded for practica, externships, and clinical experiences range from 45 to 55 hours of instruction for each one semester credit, in accordance with professional accrediting agency expectations.

Programs leading to the Master of Science Degree or Master of Health Administration Degree consist of a minimum of 30 semester credit hours.

Emergency Class Cancellation

The College will close for weather emergencies, disasters, or incidents based on the decision of the College Administration. Notification of emergency class cancellation is made via the emergency alert system (e2Campus), college web site, and main phone number. Students are encouraged to sign up for e2Campus. Students may also listen for cancellation notices on local radio and television stations. Please note that the college has no control over how rapidly or accurately the radio and television stations report closings.

Grading

Graduation requirements are based on the quantity and quality of the student's work. The number of credits is a measure of quantity, with a credit normally representing fifteen hours per semester of course work, thirty hours per semester of lab, and not less than forty-five hours per semester of clinical. The grade is a measure of quality. The College uses the following system for grading graduate courses:

Grading Scale

A	4.000	Satisfactory/Passing
A-	3.700	Satisfactory/Passing
B+	3.300	Satisfactory/Passing
B	3.000	Satisfactory/Passing
B-	2.700	Satisfactory/Passing
C+	2.300	Marginal*/Passing
C	2.000	Marginal*/Passing
C-	1.700	Marginal*/Passing
D+	1.300	Unsatisfactory/Failing
D	1.000	Unsatisfactory/Failing
D-	0.700	Unsatisfactory/Failing
F	0.000	Unsatisfactory/Failing

Special Grading Symbols

I	0.000	Course Work Incomplete
IE	0.000	Incomplete Extended
NJ	0.000	No Judgment
P	0.000	Pass
W	0.000	Student Withdrawal

**Although a C may be considered passing for a course, students must maintain a 3.00 average in their degree program and present a 3.00 GPA on the courses listed on the graduation application.*

Grade Point Average

The grade point average is used to determine eligibility for admission, progression, and graduation. It is calculated by dividing the total number of quality points by the total number of graded credit hours attempted. Courses with grades or status of “P”, “W”, “I”, “IE”, and “NJ” are not figured in the grade point average. A student’s cumulative grade point average at Jefferson is based solely on academic work at Jefferson and is not affected by course credit earned at another institution.

Pass / Fail

Some graduate classes may be offered on a Pass / Fail. Pass in a graduate course is equivalent to “A” or “B”. A graduate course may not be taken on a Pass / Fail basis unless this grade status is specified in the course description.

Incomplete Status

Only the faculty member may assign a course status of Incomplete “I”. When a faculty member assigns a grade status of “I” in a course for a student, the faculty member must complete the appropriate form in the Registrar’s Office. A status of Incomplete “I” may be assigned if a student is passing the course and has a justifiable reason for not completing the work on time. This status must be changed by midterm of the following semester. Otherwise, the instructor or the Registrar will change the status to an F. No student with a status of “I” may receive a degree. Neither credit hours nor grade points are awarded for a course whose status is “I”.

Incomplete Extended

The time limit for the completion of a grade of Incomplete may be adjusted due to extenuating circumstances. The faculty member and the Registrar must approve the extension of an Incomplete.

No Judgment

The designation of “NJ” indicates satisfactory progress in project courses taken by students in cases where such courses are not completed during a term and when there is need for a grade to indicate that the student has been actively engaged in scholarship. Students may enroll in such courses according to the policies of their degree program.

Grade Reports and Final Grades

Grade reports are issued to students each semester though each student’s Self-Service account. Some courses may issue midterm grades though Self-Service. The mid-term grade report, if course and program appropriate, indicates a student’s progress and serves to identify potential academic problems. Neither midterm nor final grades are mailed to the student.

Graduation

Graduation requirements

Students may receive a graduate degree only after meeting all of their program requirements. A cumulative grade point *average* of 3.00 or better is required by all programs for completion of a graduate degree.

A minimum of sixty-five (65) percent of the course work required to earn a graduate degree must be taken at Jefferson College of Health Sciences. Transfer courses must be approved by the Program Director and the Registrar.

Application for Graduation

It is the student’s responsibility to be aware of progress toward the degree. Students **must** file an Application for Graduation form with the Registrar’s Office two semesters before the date of graduation. A program of study, signed by the advisor and program director, must be forwarded to the Registrar.

Commencement Exercises

Ceremonies for all graduates who have completed degree requirements in the previous summer and current fall terms are held in December. Ceremonies for all graduates who have completed degree requirements in the current spring term are held in May of each year.

Students who plan to complete degree requirements at the end of the Summer Semester may participate in the preceding Spring Graduation ceremonies pending completion of degree requirement under the following policy:

1. At the time of Spring Graduation, the student may not have more than 3 credit hours pending.

2. The outstanding credits must be completed by the last day of final exams of the Summer Semester immediately following the Spring graduation in which the student participated. A written plan of completion of these credits must be filed with the Registrar's Office before participation in the Spring ceremony.

3. The student will not be eligible to participate in any other graduation ceremony for conferral of the same degree.

Hooding Ceremony

All graduate students who are eligible for participation in the College commencement ceremony will be eligible to participate in the hooding ceremony.

Interdisciplinary Studies/Interprofessional Education

Jefferson has identified broad-based interdisciplinary learning as a component of its mission, believing that it is essential to improve healthcare outcomes. To accomplish this, elective and required courses in Interdisciplinary Studies (IDS) and Interprofessional Education (IPE) are interwoven with the discipline-specific courses in the curriculum. IDS and IPE courses integrate theory, innovative practice, and technology into classroom, laboratory, and clinical settings. IDS courses provide students from all curricula with knowledge that transcends the boundaries of specific healthcare disciplines. Students in IPE courses engage in interprofessional teamwork around problems specific to the topic of the course.

Master's Scholarly Project

Some master's degree programs involve a Master's project that is a culminating experience, which includes an integrating activity and a comprehensive evaluation of the student's performance:

1. The integrating activity is intended to help the student synthesize knowledge and skills acquired throughout the degree curriculum. The form of this activity will vary according to the particular discipline and will be specified in the appropriate program handbook.

2. The Master's Project should demonstrate the ability of the student to select a specific problem or topic, to assemble pertinent data, to do research appropriate to the topic, to organize ideas and data acceptable; to synthesize, analyze and interpret results; and to produce a document in clear and effective English.

3. The student's performance on the Master's Scholarly Project may be classified into one of three (3) categories: (1) Pass; (2) No Judgment – the student is provided an opportunity for further study and re-examination by the committee; (3) Fail with no opportunity for re-examination or re-evaluation. The nature of further study and a schedule for re-evaluating the student's performance will be established by the program faculty.

Minimum Performance Standards for Admission and Progression

In compliance with the Americans with Disabilities Act, students must be, with reasonable accommodations, physically and mentally capable of performing minimal standards to meet program objectives. If a student cannot demonstrate the ability to meet the technical standards, it is the responsibility of the student to request appropriate accommodations by scheduling an appointment with the Coordinator of Services for Students with Disabilities. The College will determine whether it agrees that the student can meet the technical standards with reasonable accommodation. This includes a review as to whether the accommodations requested are reasonable, taking into account whether accommodations would jeopardize clinician or client safety, the institution, or the educational process of the student, including all coursework and clinical experiences deemed essential for graduation. Students should see their program descriptions for program-specific Minimal Performance Standards.

Non-Degree Seeking Policy for Graduate Courses

Non-degree seeking students may enroll in no more than a total of 12 credit hours of graduate level coursework without being formally accepted into a graduate program (see Non-Degree Seeking Students in the Graduate Admissions section). Acceptance in the course requires the consent of both the

instructor of the course and the program director offering the course. Application of these credits to a Jefferson graduate program will be according to the policies of that program.

Readmission

Inactive students who were in good standing and who wish to re-enroll should submit a new application and any additional materials requested, including transcripts from all colleges attended since leaving Jefferson College of Health Sciences. Readmitted students adhere to the requirements of the Catalog at the time of re-entry.

Reinstatement

Students who have been dismissed for academic or professional reasons from a graduate program at Jefferson are **generally** not eligible for reinstatement to that program.

Standards of Satisfactory Academic Progress

Students are expected to maintain a minimum cumulative GPA of 3.0 for all graduate coursework. Failure to maintain a cumulative GPA of 3.0 will result in academic probation for one semester. Students on academic probation must meet with their financial aid representative to determine how this status impacts their financial aid awards.

Specific policies pertaining to those students who are unable to raise their cumulative GPA to 3.0 at the end of the probation semester and to students whose cumulative GPA falls below for a second time are published in each program's handbook.

Student Complaints/ Grievances

Students who believe that they have been treated unfairly with respect to the application of the laws, rules, policies, procedures or regulations under which the College operates or because of race, religion, color, national origin, age, gender, sexual orientation, veteran status or disabilities may file a formal complaint. A complaint/grievance is an internal matter subject to the guidelines located in the Student Handbook, which is published on the College website (*www.jchs.edu*) under "Campus Life" and is also available in the Office of Student Affairs, located on the 4th floor of the Carilion Roanoke Community Hospital Building.

Student Exit Form

A Student Exit Form must be submitted to the Registrar if a student is graduating, completely withdrawing from the college or requesting a Leave of Absence. The form is available online or in the Registrar's Office. Seniors planning to graduate

must submit the form no sooner than two weeks before the graduation date but no later than the last official day of classes prior to the anticipated graduation. The exiting student must obtain clearance from all departments listed to verify that all obligations to Jefferson College of Health Sciences have been satisfied before the student can be eligible for graduation or have any requests for transcripts honored.

Students' Rights of Access to Their Educational Record

The College complies with the Family Educational Rights and Privacy Act of 1974 (FERPA), as amended (often referred to as the "Buckley Amendment"), which protects the privacy of educational records, establishes students' rights to inspect their records, provides guidelines for correcting inaccurate or misleading data, and permits students to file complaints with the Family Educational Rights and Privacy Act Office. *Portions of this policy were adapted from the recommendations of the American Association of Collegiate Registrars and Admissions Officers (2006), Family Educational Rights and Privacy Act 2006 Guide, Washington, DC.*

Educational records are defined as any record maintained by the institution in which a student can be personally identified. Record formats may include handwritten, printed, computer images or data, e-mail, video/photos, audio tapes, and microfilm/microfiche. However, education records do not include private notes maintained by a College official that are not accessible or released to other personnel, law enforcement or campus security records, medical records, employment records, and alumni records.

Students are afforded the following rights with respect to their educational records:

1. The right to inspect and review his/her education records within 45 days of the day the College receives a request for access. Students should submit to the Registrar, Dean for Academic Affairs, Dean for Student Affairs, Department Chair, or Program Director a written request that identifies the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place when the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, the official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of his/her education records that the student believes to be inaccurate or misleading. Students may ask the College to amend a record that they believe is inaccurate or misleading. They should write the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the College decides not to amend the record

as requested by the student, the College will notify the student of the decision and advise the student of his/her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosures without consent. Access to students' records, except directory information, which may be released, is never granted to individuals from off campus requesting information, unless the student involved has given written permission or as applicable law requires. Directory information is defined as the student's name, address, phone number, dates of attendance, curriculum, honors, degrees granted, graduation dates, and participation in officially approved activities. Students may restrict access to their directory information by contacting the Registrar's Office and filing a written request. To minimize the risk of improper disclosure, academic and disciplinary records are kept separate.

   Students may authorize disclosure of information to parents or anyone else by completing a *Student Permission to Release Information Form* available in the Registrar's Office. This authorization for disclosure may also be revoked by the student through written notification to the Registrar's Office.

   The College may also exercise its discretion to disclose information from the student's educational records without written authorization from the student under the following circumstances:

   a. to federal, state, and local authorities involved in the audit or evaluation of compliance with education programs;

   b. to comply with a judicial order or subpoena;

   c. in connection with financial aid;

   d. to organizations conducting studies for or on behalf of educational institutions;

   e. to accrediting organizations;

   f. to the parents of a dependent student (special guidelines apply);

   g. when a health or safety emergency is apparent;

   h. when directory information is being released;

i. to an alleged victim of a crime of violence, the results of a disciplinary hearing may be disclosed; and

j. to school officials who have a legitimate educational interest. A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including security personnel and health staff); a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Directors; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an educational record in order to fulfill his or her professional responsibility.

4. The right to file a complaint with the U.S. Department of Education concerning the alleged failures by the College to comply with requirements of FERPA. The name and address of the office that administers FERPA is Family Policy Compliance Offices, U.S. Department of Education, 400 Maryland Avenue SW, Washington, D.C. 20202-4605.

Time Limit for Degree Requirement

All course work for the Master's degree must be completed within seven (7) years of matriculation. Exceptions to these time limits may be granted following appeal by the student.

Transfer Credit

The number of transfer credits is determined by each program. The actual transfer of credit, if permitted by a specific program, is governed by the following conditions.

Application for the transfer of credit completed at international institutions must be evaluated by the American Association of Collegiate Registrars and Admissions Officers (AACRAO) or the World Educational Service (WES) before submission to the Program Director and the Registrar. Any grade received from another institution will not be included in the Jefferson College of Health Sciences grade point average.

Transfer credits are subject to the following conditions:

1. Courses must be comparable to Jefferson College of Health Sciences course requirements or be acceptable as appropriate for the student's

program of study. The graduate student must make this request in writing to the faculty advisor.

2. Courses must have been completed at a regionally accredited institution within the prior five calendar years.

3. Courses must be fully acceptable and applicable to comparable degree programs at the offering institutions; however, transfer credit is not allowed for a course counted within a graduate degree program completed at another institution.

4. Courses must be reflected on an official transcript that indicates regular disciplinary prefixes, graduate-level course numbers, and titles. An official transcript of the transfer course and a copy of the course description from the appropriate academic years catalog must be submitted with the student's written request to the faculty advisor.

5. Continuing education, professional development, and in-service courses are not transferable unless the course(s) is (are) fully acceptable and applicable to a comparable degree program at the offering institution.

6. Any courses proposed for transfer credit, whether taken before or after admission to Jefferson College of Health Sciences, must have the approval of the program director and registrar.

Undergraduate Students Enrolling in Graduate Courses

Senior undergraduate students may enroll in no more than a total of 12 credit hours of graduate level coursework. Acceptance in the course requires the consent of both the instructor of the course and the program director offering the course. Application of these credits to a Jefferson graduate program will be according to the policies of that program.

Withdrawal

Withdrawal from a Course

The withdrawal period is limited. The deadline for course withdrawal is published each term in the term College Calendar. After the deadline for withdrawal, a student who does not intend to complete a course and wishes to receive a grade status of "W" must apply to the Dean of Academic Affairs for an administrative withdrawal. A student who simply stops attending class during the term will receive a grade of "F" for the course.

Administrative Withdrawal

Students wishing to drop a class after the final withdrawal date (the last date to withdraw with a "W") must complete a request for Administrative Withdrawal, which is only authorized by the Dean for Academic Affairs for extenuating circumstances.

The student must submit a request for administrative withdrawal in writing to the Dean for Academic Affairs. The request must be placed on an official form provided by the Dean's Office. The form may be supplemented by additional documentation.

The request must:

- identify circumstances beyond the student's control that have occurred after the final drop date (date must be specified) and prevent successful completion of the course. If such circumstances occurred prior to the final drop date, the request must also document the extenuating circumstances leading to a failure to drop the course before the final drop date. Lack of awareness of the final drop date is not considered an extenuating circumstance,
- include documentation verifying all extenuating circumstances,
- indicate the last day of class attendance or online activity in an online course, and
- be accompanied by a letter/e-mail from instructors of all courses involved in the request indicating their recommendation regarding the request.

The Dean will respond within five business days of receipt of the student's letter and written recommendation from all involved instructors. A written copy of this decision will be sent to the student with copies to the Registrar, course instructors and advisor. The decision of the Dean is final.

Withdrawal from the College

By the Student

A student who wishes to withdraw from the College must notify the office of the Dean for Academic Affairs and complete the appropriate form. The Drop/Add dates for the term apply. A student who simply stops attending classes will receive a grade of "F" for all courses.

By the College

If a student does not register for a course for three consecutive terms, the student will be administratively withdrawn from the College and considered an inactive student. An inactive student must apply to the Admissions Office for readmission, and may resume studies under the Catalog in effect at the time of readmission. The College reserves the right to require at any time the withdrawal of a student whose conduct or academic work is not considered satisfactory.

Leave of Absence

Graduate students may request a leave of absence for a number of terms not to exceed one calendar year. A request for a leave of absence should be sent in writing to the academic advisor of the program. Students who return on the agreed-upon date re-enter the program with the same status held at the time they left. Students who do not obtain a formal leave of absence, or those who do not return in the agreed upon term, shall be considered withdrawn from the College and will have to reapply to gain readmission.

Graduate Program Descriptions

Biology Graduate Certificate

The graduate biology certificate program is designed for individuals, such as high school science teachers, seeking to obtain graduate credit hours in biology. Achievement of this certificate will provide the individual with preparation in biology that will enhance their ability to teach biology related course work. The curriculum emphasizes molecular and cellular aspects of biological systems, application of quantitation to biological and physiological principles and remaining current through life-long commitment to reading contemporary research publications relevant to these disciplines. The graduate certificate includes 18 semester hours that are taught online and in campus laboratories, using both synchronous and asynchronous methodology.

Biology Graduate Certificate Plan of Study

Prefix	Number	Title	Credit hours
BIO	501	Principles of Cellular Biology	3
BIO	515	Comparative Anatomy for Biologists	3
BIO	535/535L	Human Anatomy for Biologists	4
BIO	545/545L	Microbial Genetics	4
BIO	555	Human Physiology	4
		Total Credits	18

Master of Healthcare Administration

Introduction

The MHA program offers an avenue for healthcare professionals who have graduated from an accredited baccalaureate degree program to acquire a master's degree for career advancement opportunities, as well as for individuals seeking future careers in healthcare.

Today, many healthcare organizations are strongly encouraging their healthcare professionals to obtain a master's degree. The result is that experienced and entry-level professionals with baccalaureate degrees are searching for a master's degree completion program that will allow them to complete degree requirements while working part-time or full-time. The Master of Healthcare Administration program is especially designed for adult learners who are working in their professions, while completing the required coursework for the MHA degree.

In keeping with the Mission of Jefferson, the MHA program supports broad-based interdisciplinary learning, personal and professional integrity, commitment to life-long learning; advancement of knowledge through scholarship; and a holistic development of the individual.

Mission

The mission of the Master of Healthcare Administration (MHA) program is to develop healthcare leaders who will possess the attributes, values and competencies needed to lead healthcare organizations today and into the future.

Program Outcomes

Upon completion of the MHA program, graduates will be able to:

1. Comprehend and analyze a broad range of social, behavioral and environmental factors that influence individual and population health in the United States.
2. Assimilate and integrate acquired knowledge and critical thinking skills in general business management and leadership concepts and practices.
3. Model and apply knowledge and skills to effectively and ethically lead healthcare organizations within complex, competitive, regulatory and legal environments.
4. Synthesize acquired knowledge and skills toward the resolution of practical healthcare leadership issues and problems in an evidenced based practice environment.
5. Formulate and promote effective professional communication, cultural sensitivity and a commitment to acquire the skills to support lifelong learning.

Admission Requirements

The following requirements must be met for admission to the MHA Program:

- Baccalaureate degree from a regionally accredited institution with a recommended GPA of 3.0 or higher.
- All applicants must have completed a college level statistics course with a grade C or higher prior to or during the first semester of the program.
- Completed recommendation forms from two references.
- A professional resume.
- Students may transfer up to twelve (12) graduate credit hours to the MHA program *(Please refer to the Transfer Credit policy in the Graduate Information, Policies, and Procedures section of this Catalog)*
- Applicants are not required to have previous healthcare experience prior to admission, but any student without a minimum of one year of healthcare experience, will be required to take MHA 670, a healthcare practicum, prior to graduation.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the MHA Student Handbook. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

Course Format

The MHA Program of Study is designed to accommodate the needs of both full and part time adult professionals. Courses are offered as online classes, supported by synchronous and asynchronous technology resources. Full-time students will take three to four courses per semester for a minimum of four semesters. Students may complete the program on a part time basis. Advisors will work with part time students to develop a course plan that allows for systematic completion of the program within the timeframes required by the college.

Synchronous class meetings may be held to support active student learning and are typically scheduled during evening hours. Additionally, IPE 507, an interprofessional educational course, is taken with graduate students from the Master of Science programs in Nursing, Occupational Therapy and Physician Assistant, and medical students from the Virginia Tech Carilion School of Medicine.

Master of Healthcare Administration
Program of Study (39 – 42 credit hours)

PREFIX	COURSE TITLE	CREDITS
Semester 1: Fall		
HA 510	Foundations of Healthcare Administration	3
HA 520	Advanced Health Information Systems	3
HA 530	Organizational Theories and Leadership	3
	Total Credits:	9
Semester 2: Spring		
HA 540	Human Resource Administration	3
HA 550	Research Methods and Analysis	3
HA 560	Advanced Financial Management in Healthcare	3
	Total Credits:	9
Semester 3: Summer		
HA 610	Legal Issues Affecting Healthcare Organizations	3
HA 620	Strategic Healthcare Economics and Policy	3
HA 630	Seminar in Healthcare Administration	3
	Total Credits:	9
Semester 4: Fall		
HA 640	Operations & Performance Management	3
HA 650	Quality Assessments and Improvement	3
HA 660	Strategic Leadership and Marketing	3
IPE 507	Ethical and Legal Practice in Healthcare	3
	Total Credits:	12
	Total Credits:	**39**
	Credits from Interprofessional Education Courses:	**3**
	Credits from Healthcare Administration Courses:	**36**
HA 670	Healthcare Administration Practicum (Optional)	**3**
	Total HA Credits with Optional Practicum	**42**

Healthcare Administration Graduate Certificate

The graduate certificate in healthcare administration (HA) is designed to offer core healthcare administration content to healthcare managers and other healthcare professionals. The graduate certificate in HA is taught in a learning environment where students with management and professional experience can supplement their existing practical knowledge with new theoretical knowledge of healthcare organizations, healthcare organizational behavior, healthcare financial management, and related healthcare administration topics. The graduate certificate in HA includes six courses (18 semester hours) which are taught online, using both synchronous and asynchronous methodology.

Admission Requirements:
Applicants applying for the graduate certificate in HA must have graduated with a bachelor's degree from an accredited college or university and have at least two (2) years of work experience in a healthcare organization. Applicants must provide a current resume during the application process.

The certificate program is designed as part-time plan of study. Students may take one or two courses per semester. Once accepted, students must complete a six-course (18 semester hour) program of study with a 3.0 or better GPA and no grade lower than "C". In most cases, coursework taken for the graduate certificate with an earned grade of "B" or better can be transferred to the Master of Healthcare Administration degree program if the student is admitted to the MHA program and the courses meet degree requirements.

Healthcare Administration Graduate Certificate
Program of Study (18 credit hours)

PREFIX	COURSE TITLE	CREDITS
Semester 1		
HA 510	Foundations of Healthcare Administration	3
HA 530	Organizational Theories and Leadership	3
	Total	6
Semester 2		
HA 560	Advanced Financial Management in Healthcare	3
HA 640	Operations & Performance Management	3
	Total	6
Semester 3		
HA 630	Seminar in Healthcare Administration	3
HA Elective	Elective	3
	Total	6
	Total HA Credits with Elective	18

Health Informatics Graduate Certificate

The graduate certificate in healthcare informatics (HI) is designed to educate healthcare managers, and other professionals interested in a career move, to be effective users and managers of health information. Students will learn how to identify and provide the health information needed by hospital and system executives, governmental planners, public health officials, and other healthcare professionals. Applications of outcome measures provide students with the ability to evaluate the effectiveness of decision making regarding both health and healthcare status. The graduate certificate in HI includes six courses (18 semester hours) which are taught online, using both synchronous and asynchronous methodology.

Admission Requirements:

Applicants applying for the graduate certificate in HI must have graduated with a bachelor's degree from an accredited college or university and have at least two (2) years of work experience in a healthcare organization. Applicants must provide a current resume during the application process. Students are expected to be proficient in basic computer skills, including use of Microsoft Office Suite.

Requirements for Successful Completion of Certificate Program:

The certificate program is designed as a part time plan of study. Students may take one or two classes per semester. Students must complete the program of study with a 3.0 or better GPA and earn a grade of no less than C in each course. While the grade of C or better will satisfy Certificate requirements, only grades of B or better may be subsequently transferred to the Master of Healthcare Administration program at Jefferson, should the student later seek admission to the MHA program.

Health Informatics Graduate Certificate
Program of Study (18 credit hours)

PREFIX	COURSE TITLE	CREDITS
Semester 1		
HA 510	Foundations of Healthcare Administration	3
HA 520	Advanced Health Information Systems	3
	Total	6
Semester 2		
HA 565	Information Systems Life Cycle	3
HA Elective	Elective	3
	Total	6
Semester 3		
HA 665	Healthcare Informatics	3

HA 667	Decision Support Systems for Healthcare Organizations	3
		6
	Total Credits with Elective	**18**

Master of Science in Nursing

Introduction

The purpose of the Master of Science in Nursing (MSN) program is to prepare nurses for leadership roles within healthcare organizations and clinical and academic education; to influence the provision of high quality healthcare; initiate and manage change; and contribute to improving nursing knowledge and practice.

The graduate program is built upon the foundation of baccalaureate education. Graduate nursing education provides an opportunity for professional nurses to develop specialty practice in the area of Nursing Administration or Family Nurse Practitioner to meet the needs of an evolving healthcare delivery system. A common core of knowledge provides a foundation for nurses in both tracks. This core includes the Essentials of Master's Education in Nursing and the Institute of Medicine reports on health professions education.

In the Nursing Administration track, students develop the knowledge and skills needed in an evolving healthcare environment. Students analyze and apply organization and leadership theory, develop expertise in the areas of personnel and financial management, quality improvement, and evidence-based practice. In addition, the student, through didactic and supervised practice, gains the competencies required to implement change within complex healthcare environments using collaborative, interdisciplinary teams.

The Family Nurse Practitioner track is designed to prepare registered nurses to fulfill the role of ethical, knowledgeable, competent, and caring healthcare providers for families in the primary care setting. The focus of the FNP program is to provide the academic knowledge and clinical skills necessary for health promotion, disease prevention, assessment, interprofessional collaboration, and management of common acute and chronic conditions and illnesses.

Nursing Programs Mission

Jefferson Nursing Programs promote excellence in nursing education, practice, scholarship, and service. Through innovative interprofessional practice and education experiences, graduates are empowered to provide leadership in the rapidly changing and culturally diverse healthcare environment. Graduates contribute to the health of all populations as ethical clinicians, educators, researchers, and leaders.

Accreditation

The Master of Science in Nursing program is accredited by the Commission on Collegiate Nursing Education (One DuPont Circle, NW, Suite 530, Washington, DC 20036. Phone: 202-887-6791).

MSN Program Outcomes

Upon completion of the MSN program, the graduate nurse will:

1. Analyze and integrate theories of nursing, education, leadership, and other sciences to guide professional role development and improve nursing practice across diverse settings.

2. Provide organizational and system leadership that emphasizes the importance of professional accountability, ethical decision making, collaborative relationships, and protection of human dignity and diversity.

3. Synthesize and apply the principles, methods, tools, performance measures, and standards related to quality and safety within the healthcare system.

4. Contribute to nursing knowledge by applying current research outcomes within the practice setting: resolving practice problems; working as a change agent; and disseminating results.

5. Integrate patient-care and communication technologies to improve delivery and enhance coordination of care.

6. Analyze the impact of system policies on healthcare, participate in policy development, and use advocacy strategies to influence the quality of health care.

7. Communicate, collaborate, and consult with clients and health professionals to manage and coordinate care as a member and leader of interprofessional teams.

8. Integrate organizational, client-centered, and culturally appropriate concepts in the planning, delivery, management, and evaluation of evidence-based health promotion and population care.

9. Demonstrate and integrate advanced nursing knowledge and relevant sciences into safe advanced nursing practice.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the MSN Student Handbook. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

Program of Study

The MSN Program of Study is designed to accommodate the needs of both full and part time adult professionals. . Non clinical courses are delivered in a primarily on-line format. During the course of the program. Precepted experiences will occur at sites arranged in partnership with Jefferson faculty. FNP nursing students will visit the Jefferson campus to learn and participate in skills assessments. These academic visits are called On-Campus Intensives (OCI).

Prerequisite Courses for Nursing Administration Students with Non-Nursing Baccalaureate Degrees

- Completion of NSG 490, Contemporary Nursing Issues, with a B or better.
- Completion of a college level research course with a C or better.

Master of Science in Nursing: Nursing Administration
Program of Study (36 credit hours)

PREFIX	COURSE TITLE	CREDITS
Semester 1 (Fall)		
NSG 549	Organizational Behavior and Theory	3
NSG 516	Quality and Safety in Healthcare	3
NSG 660	Human Resources	3
	Total Credits:	**9**
Semester 2 (Spring)		
NSG 502	Healthcare Systems and Policy	3
NSG 509	Translation of Evidence	3
NSG 523	Population Diversity	3
	Total Credits:	**9**
Semester 3 (Fall)		
IPE 507	Ethical and Legal Practice in Healthcare	3
NSG 671C	Administrative Residency	3
NSG 605	Collaboration and Interprofessional Leadership	3
	Total Credits:	**9**
Semester 4 (Spring)		
NSG 620	Informatics & Data Management	3
NSG 655	Financial Management in Healthcare	3
NSG 654	Advanced Practice Roles & Leadership	1
NSG 696	Integration of Evidence into Advanced Nursing Practice	2
	Total Credits:	**9**
	Total Credits	**36**
	Credits from Interprofessional Education Courses:	**3**
	Credits from Nursing Courses	**33**

Master of Science in Nursing: Family Nurse Practitioner
Program of Study (50 credit hours)

PREFIX	COURSE TITLE	CREDITS
Semester 1 (Fall)		
NSG 510	Principles of Primary Care and Family Health	3
NSG 516	Quality and Safety in Healthcare	3
	Total Credits:	**6**
Semester 2 (Spring)		
NSG 502	Healthcare Systems and Policy	3
NSG 509	Translation of Evidence	3
	Total Credits:	**6**
Semester 3 (Summer)		
NSG 531	Advanced Physiology and Pathophysiology	3
NSG 545	Advanced Pharmacology	3
	Total Credits:	**6**
Semester 4 (Fall)		
IPE 507	Ethical and Legal Issues in Practice	3
NSG 550	Advanced Health Assessment	2
NSG 550L	Advanced Health Assessment Lab	1
NSG 552L	Clinical Testing and Procedures Lab	1
	Total Credits:	**7**
Semester 5 (Spring)		
NSG 614	Primary Care of Adults and Geriatrics I	3
NSG 615C	Practicum I: Primary Care of Adults and Geriatrics	2
	Total Credits:	**5**
Semester 6 (Summer)		
NSG 624	Primary Care of Adults and Geriatrics II	3
NSG 625C	Practicum II: Primary Care of Adults and Geriatrics	2
	Total Credits:	**5**
Semester 7 (Fall)		
NSG 634	Primary Care of Children & Adolescents	3
NSG 635	Primary Care in Reproductive Health	2
NSG 636C	Practicum III: Primary Care of Children/Adolescents and Women	3
	Total Credits:	**8**
Semester 8 (Spring)		
NSG 696	Integration of Evidence into Advanced Nursing Practice	2
NSG 675C	FNP Preceptorship	4
NSG 654	Advanced Practice Roles and Leadership	1
	Total Credits:	**7**

Total clinical hours: 605		
	Total Credits	**50**
	Credits from Interprofessional Education Courses:	**3**
	Credits from Nursing Courses	**47**

Master of Science in Occupational Therapy

Introduction

Occupational Therapy (OT) is an allied health profession. Its primary aims are to provide intervention to individuals whose lives have been disrupted by adverse circumstance, assist them in gaining or improving their quality of life, and make them capable, using specific skills required of them, to function effectively within their own dynamic environments. To this end occupational therapist use meaningful / purposeful “occupations” (those tasks and functions of life that require time and energy and which otherwise able-bodied individuals take for granted) to develop or redevelop necessary and/or desired skills for life. These life tasks include, but are not limited to, self-care skills such as bathing, dressing, and toileting; interpersonal communication skills such as carrying on a telephone conversation or speaking with family members or an employer about sensitive issues; everyday living tasks such as the roles of a homemaker, vocational interactions and the roles of employee; paying personal bills, balancing a checkbook, purchasing groceries, driving, planning for the future, enjoying leisure pursuits, etc.

Occupational therapists function in a variety of settings. Graduates may work in a hospital, rehabilitation center, extended care facility, nursing home, public schools, developmental daycare facility, adult day care program, mental health clinic, out-patient facilities, home health agencies, industrial rehabilitation programs, hospice programs, private practice and in various community agencies that aid individuals with specific disabilities.

Program Accreditation

The Occupational Therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA) located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, Maryland, 20824-1220. AOTA’s phone number is (301) 652-2682. Websites: *www.aota.org* and *www.acoteonline.org*

Licensing Information

Upon graduation from this program graduates must sit for a national registry exam administered by the National Board for Certification in Occupational Therapy (NBCOT). Their offices are located at 12 S. Summit Avenue, Suite 100, Gaithersburg, Maryland, 20877-4150**.** NBCOT’s phone number is (301) 990-7979. . Website: *www.nbcot.org.*

All candidates must complete an application for this exam which includes information concerning any previous charges or convictions of a felony, revocation or suspension of a professional license by a regulatory board, or involvement in any disciplinary action due to malpractice, negligence or

misconduct. An affirmative response to any of the above questions may prohibit the candidate's permission to sit for the exam. Upon entry to this program, if any of the above situations have occurred, the student may contact NBCOT and request an EARLY DETERMINATION where the facts may be presented and the Board will respond stating whether the student would be able to take the test or not.

All Occupational Therapists must be licensed by the Virginia Board of Medicine BEFORE practicing in the state of Virginia. Licensure requirements may be obtained by contacting: The Department of Health Professions, Perimeter Center, 9960 Maryland Drive, Suite 300, Richmond, Virginia 23233.

Program Outcomes

Graduates from the Master of Science in Occupational Therapy program a graduate will be able to:

1. apply occupational therapy theories with evidenced-based evaluations and interventions to achieve expected outcomes as related to their client's participation in their daily lives,

2. demonstrate life-long learning by applying the latest research and professional knowledge that supports the practice of occupational therapy,
3. contribute to the occupational therapy profession through the analysis and application of current occupational therapy theories and other related healthcare knowledge,

4. communicate effectively with other healthcare professionals, agencies, and other members of the healthcare team to foster interdisciplinary collaboration,

5. articulate and model the ethical standards, values, and attitudes of the occupational therapy profession,

6. advocate in various settings for both the services occupational therapy may provide and the recipients of those services, and

7. affectively manage the delivery of occupational therapy services through the coordination and supervision of staff and the prudent utilization of resources.

Minimum Performance Standards

In an average academic day a Student must be able to:

- Sit: 2 - 6 hours
- Attend to tasks: 1 – 2 hours (without a break)
- Walk on level surfaces and/or use stairs

- Provide one's own transportation to and from assigned fieldwork placements or clinical instruction sites within a 2 hour driving radius of the college. (100-150 miles)

Key: Rarely (R) = 1-10%
Occasionally (O) = 11 - 33%
Frequently (F) = 34 - 66%
Continuously (C) = 67 - 100%

The student is required throughout the 5-semester academic program to:

- Lift less than 10 pounds (F)
- Lift 25 - 50 pounds (R)
- Bend/Stoop (F)
- Climb stairs (R)
- Kneel (R)
- Use hand repetitively (C)
- Firm grasp (O)
- Lift 10 - 25 pounds (O)
- Twist (F)
- Squat (O)
- Reach above shoulder level (O)
- Push/Pull (O)
- Simple Grasping (C)
- Manual dexterity (O)
- Finger dexterity (manipulation of objects less than 1in.) (F)
- Use auditory/tactile/visual senses to evaluate status of an individual (F)

Physical Demands:

- Lift, boost, turn, or transfer patients weighing up to approximately 300 pounds in and out of bed, car, on and off of mats, wheelchairs, toilet or tub/shower, and average of 15 times per day.

- Frequent (>15 times daily) lifting and carrying of supplies and equipment up to approximately 20 pounds.

- Frequently (>25 times daily) twisting, bending, reaching, stooping, stooping, pushing, and pulling.

- Intermittent sitting, kneeling, half-kneeling, standing, and walking.

- Applying resistance/providing support during exercise and activities of daily living training and independent living skills training.

- Stair ascending and descending up to approximately 10 times daily.

- Visual ability to observe compensatory strategies, functional performance, read medical records, etc.

- Hand dexterity to palpate levels of muscle activity, manipulate treatment tools and supplies, and domument fine-motor skills.

Working Conditions:

- Possible exposure to contagious diseases, body fluids, and cleaning materials.
- Patient care environment: hospital, clinic, outpatiient setting.
- Office environment: indoors.
- Client's home.
- Out of doors in all weather conditions if performing home evaluations.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the *Occupational Therapy Student Handbook*. These handbooks are available electronically on the program's blackboard site.

Master of Science in Occupational Therapy Program of Study (81 Credits)

PREFIX	COURSE TITLE	CREDITS
Semester 1		
BIO 521	Gross Anatomy for Clinical Applications	4
OT 531	Occupational Response to Pathological Conditions	3
OT 501	Fundamentals of Occupation	3
OT 510	Use of Occupations in Mental Health	3
OT 554	Fieldwork I-A	1
	Total Credits:	**14**
Semester 2		
BIO 530	Functional Clinical Neuroanatomy	4
OT 520	Humans in Motion	3
OT 502	Research Methodologies	3
OT 555	Fieldwork I-B	1
OT 670	Occupational Fitness for Life	2
	Total Credits:	**13**
Semester 3		
OT 540	Occupation using Adaptation	3
OT 560	Client Advocacy/Public Policy	3
	Total Credits:	**6**
Semester 4		
IPE 507	Ethical and Legal Decision Making	3
OT 556	Fieldwork I-C	1
OT 602	Occupations thru the Lifespan I	4
OT 602L	Pediatric Lab	0
OT 615	Client Care Techniques	3

OT 615L	Client Care Techniques Lab	0
OT 631	Research Project Decisions	3
OT 635	Program Development	3
	Total Credits:	**17**
Semester 5		
OT 557	Fieldwork I-D	1
OT 603	Occupations thru the Lifespan II	4
OT 603L	Geriatric Lab	0
OT 610	Clinical Reasoning	3
OT 640	Topics in Administration	3
OT 650	Research Implementation	3
	Total Credits:	**14**
Semester 6		
OT 682	Fieldwork Level II –A	8
	Total Credits:	**8**
Semester 7		
OT 692	Fieldwork Level II – B	8
OT 695	Senior Seminar	1
	Total Credits:	**9**

	Credits from Non-Major Courses	**11**
	Credits from Major Courses	**70**
	Credits from Validation Courses	**0**
	Total Credits:	**81**

Master of Science in Physician Assistant

Introduction

Physician assistants (PAs) are healthcare professionals licensed (or when employed by the federal government, credentialed) to practice medicine with physician supervision. As part of their comprehensive responsibilities, PAs conduct physical exams, diagnose and treat illnesses, order and interpret tests, counsel on preventive health care, assist in surgery, and write prescriptions. Within the physician-PA relationship, physician assistants exercise autonomy in medical decision making and provide a broad range of diagnostic and therapeutic services. A PA's practice may also include education, research, and administrative services. PAs increase patient access to primary care, promote cost savings, and improve practice efficiency and productivity.

Mission Statement

The mission of the Jefferson College of Health Sciences Physician Assistant Program is to graduate competent and compassionate physician assistants who are well versed in the art and science of medicine and are prepared to effectively function as members of the healthcare team.

Program Accreditation, Approval and Memberships

The Physician Assistant Program is accredited by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA), the recognized accrediting agency that protects the interests of the public and PA profession by defining the standards for PA education and evaluating PA educational programs within the territorial United States to ensure their compliance with those standards.

Program Outcomes

Graduates of the Master of Science in Physician Assistant program will be able to:

1. demonstrate the application of current, evidence-based medical knowledge to provide the most appropriate patient-centered care (Medical Knowledge),

2. communicate effectively with patients, physicians, and other members of the healthcare team to foster interprofessional collaboration (Communication),

3. demonstrate patient-centered care that is effective, timely, efficient, and equitable for the treatment of health problems and promotes wellness across the lifespan, regardless of individual characteristics (Patient Care),

4. model the use of bioethical and legal principles pertaining to the delivery of healthcare (Professionalism),

5. positively impact and advocate for the appropriate provision of healthcare for patients, their families, and communities (Professionalism),

6. exemplify a commitment to personal growth and development as well as growth and development of the physician assistant profession (Professionalism),

7. demonstrate scholarship and commitment to lifelong learning through critical analysis, interpretation, and evaluation of current medical research and literature to enhance the delivery of health care (Practice-Based Learning and Improvement), and

8. demonstrate an ability to provide optimal medical care within a complex medical system (Systems Based Practice).

Minimum Performance Standards

In addition to the Academic Standards described in "Program Progression" all students in the Jefferson College of Health Sciences Physician Assistant Program must possess the intellectual ability to learn, integrate, analyze, and synthesize data. They must have functional use of the senses of vision, hearing, equilibrium, and smell, with or without reasonable accommodations. Their exteroceptive (touch, pain, temperature) and proprioceptive (position, pressure, movement, stereognosis, and vibratory) senses must be sufficiently intact to enable them to carry out all activities required for completion of the physician assistant curriculum. These standards for admission establish the expectations and abilities considered essential for students to complete and graduate from our Program. These technical standards will be necessary for successful clinical practice.

The student must possess and be able to demonstrate the following abilities and skills:

1. **Intellectual:** A student must have the mental capacity to assimilate and learn a large amount of complex and technical information; be able to conceptualize and solve clinical problems and to synthesize and apply concepts and detailed information from various disciplines in order to formulate diagnostic and therapeutic plans. Students must be able to learn to read and comprehend technical materials, medication and laboratory reports.

2. **Observation:** The ability to observe well is required for demonstrations and visual presentations, laboratory evidence, and microscopic studies of microorganisms and tissues in normal and pathologic states. A student must be able to observe patients accurately and completely, at a distance and

closely. This requires functional vision and somatic sensation, enhanced by a sense of smell.

3. **Communication:** student must be able to speak with, hear, and observe patients in order to elicit information, perceive nonverbal communication, and describe changes in mood, activity, and posture. The student must be able to communicate effectively and sensitively in English with patients from different socioeconomic and cultural backgrounds. Students must be able to develop professional rapport, and efficiently and effectively communicate with the health-care team, orally and in writing.

4. **Motor:** student must have motor function to elicit information from patients by palpation, auscultation, and percussion, and to carry out diagnostic maneuvers. He or she must be able to execute movements required to provide general care and emergency treatment. Such skills require coordination of gross and fine muscular movements, equilibrium, and sensation. Students must have sufficient postural control, neuromuscular control and eye-to-hand coordination to use standard medical/surgical instruments and possess sufficient control of the upper extremities to meet the physical requirements for training and performing a safe physical examination procedure.

5. **Emotional:** student must have the emotional health to use fully his or her intellectual ability, exercise good judgment, and carry out all responsibilities attendant to the diagnosis and care of patients. The Physician Assistant Program at Jefferson is demanding both intellectually and emotionally. Students must display sufficient emotional health to withstand stress, uncertainties and changing circumstances that characterize the rigors of our Program and the reality of life as a dependent practitioner. Physician assistant students must be able to work cooperatively with other students, staff, faculty, and patients. These qualities will be assessed during the course of study.

6. **Interpersonal:** a student must be able to develop mature, sensitive, and effective relationships with patients and colleagues. The ability to tolerate physical and emotional stress and continue to function effectively is a must. Students must be adaptable, flexible, and able to function in the face of uncertainty during the course of study and with patients. He or she must have integrity, the motivation to serve, a high level of compassion, and a consciousness of social values. Students need the interpersonal skills to interact positively with people from all levels of society, ethnic backgrounds, and beliefs. These skills will be assessed on an ongoing basis during the Program.

Academic Policies

In addition to those policies published in the Jefferson Catalog and Jefferson Student Handbook, students are expected to follow the program policies as published in the PA Program Student Handbook. This handbook is available electronically on the program blackboard site and may be requested from the department secretary.

Program Progression

In addition to the "Minimum Performance Standards" listed above, PA students must adhere to the following to remain in good academic standing:

a. Maintain a minimum GPA of 3.0 and make a minimal grade of C minus in all courses.
b. If a student falls below a cumulative GPA of 3.0, they will be placed on Academic Probation. The policy governing Academic Probation for PA students can be found in the PA Student Handbook.
c. PA students are allowed one failing course grade (less than a C minus) during the program. In the event that a failing grade is earned, students will be required to enroll in and successfully pass PHA 575 before the start of the next semester. The student will also be placed on academic probation, and will be required to follow policy governing Academic Probation for PA students, which can be found in the PA Student Handbook.
d. In the event that a student earns a second failing course grade, he/she will be dismissed from the program.
e. PA students will exhibit satisfactory evidence of professional behaviors and interpersonal skills as outlined in the Jefferson Student Handbook and the PA Student Handbook.
f. Earn a passing grade on all proficiency exams (clinical check sheets, Observed Structured Clinical Exams, etc.)

Licensing Information

To be licensed, physician assistants must first complete a course of study approved and accredited by the ARC-PA. The PANCE is the entry-level exam PAs must pass in order to become nationally certified. Prior to PA licensure in Virginia, the physician defines, with approval from the Virginia Board of Medicine, a PA's scope of practice based on that individual's competencies, education, experience and the state law. Although licensure regulations and procedures vary by state, physician assistants perform medical tasks delegated to them by the supervising physician.

Master of Science in Physician Assistant
Program of Study (101 credits)

Courses must be taken sequentially in the order presented.

PREFIX	COURSE TITLE	CREDITS
Semester 1		
BIO 509	Clinical Anatomy I	2
IPE 501	Foundations of Interprofessional Leadership I	2
PHA 506	Clinical Medicine I	4
PHA 514	Clinical Pathophysiology I	2
PHA 525	Clinical Skills I	4
PHA 533	Behavioral Medicine I	2
PHA 541	Clinical Pharmacotherapeutics I	2
	Total Credits:	**18**
Semester 2		
BIO 510	Clinical Anatomy II	2
IPE 502	Foundations of Interprofessional Leadership II	2
PHA 507	Clinical Medicine II	4
PHA 515	Clinical Pathophysiology II	2
PHA 526	Clinical Skills II	4
PHA 538	Research and Evidence-Based Practice	2
PHA 534	Behavioral Medicine II	1
PHA 542	Clinical Pharmacotherapeutics II	2
	Total Credits:	**19**
Semester 3		
BIO 511	Clinical Anatomy III	2
PHA 508	Clinical Medicine III	4
PHA 516	Clinical Pathophysiology III	2
PHA 527	Clinical Skills III	2
PHA 545	Clinical Pharmacotherapeutics III	1
PHA 551	Introduction to Masters Project I	1
	Total Credits:	**12**
Semester 4		
IPE 507	Ethical & Legal Issues in Practice	3
PHA 509	Clinical Medicine IV	2
PHA 529	Clinical Skills IV	4
PHA 552	Introduction to Masters Project II	1
PHA 601	Internal Medicine I Clinical Rotation	3
PHA 602	Internal Medicine II Clinical Rotation	3
	Total Credits:	**16**

PREFIX	COURSE TITLE	CREDITS
Semester 5		
PHA 553	Introduction to Masters Project III	1
PHA 603	Primary Care I Clinical Rotation	3
PHA 604	Primary Care II Clinical Rotation	3
PHA 605	Pediatric Medicine Clinical Rotation	3
PHA 606	Women's Health Clinical Rotation	3
PHA 607	General Orthopedics Clinical Rotation	3
	Total Credits:	**16**
Semester 6		
PHA 554	Introduction to Masters Project IV	1
PHA 608	General Surgery Clinical Rotation	3
PHA 609	Psychiatry/Behavioral Medicine Clinical Rotation	3
PHA 611	Emergency Medicine Clinical Rotation	3
	Total Credits:	**10**
Semester 7		
PHA 612	Elective Clinical Rotation I	3
PHA 613	Elective Clinical Rotation II	3
PHA 621	Masters Capstone	4
	Total Credits:	**10**
	Total Credits:	**101**
	Credits from Non-PA Courses:	**6**
	Credit from Interprofessional Education Courses:	**7**
	Credits from PA Courses:	**88**

Student Affairs

Jefferson College of Health Sciences is committed to providing student services that support educational programs and the College mission: "to prepare within a scholarly environment, ethical, knowledgeable, competent and caring healthcare professionals." The institution provides a quality educational environment founded on sound standards, policies and accessibility to College programs of study.

The mission of Student Affairs is to facilitate learning and development by providing opportunities for students to achieve their goals, including mastery of knowledge, the ability to think critically, enhancement of interpersonal skills, cultural awareness and a sense of community. Specifically, Student Affairs provides programs and services that:

- Promote students' increased self-understanding and personal development;
- Increase students' understanding of their roles and responsibilities to others, to society and to themselves;
- Assist students in overcoming barriers that may prevent them from completing their education;
- Integrate students' classroom and non-classroom living and learning experiences within the College community;
- Promote student appreciation of human diversity;
- Provide guidance in areas of advising, counseling, and career development.

Student Affairs supports students academically, developmentally and socially through tutoring, counseling, academic support, testing, wellness programming, student activities and Residence Life. Students can make an appointment for any of these services by calling (540) 985-8395.

For more information, please refer to the "Student Affairs" section of the *College Student Handbook*.

Residence Life

The residence hall is located within the newly renovated Patrick Henry Hotel, which is a historic landmark in downtown Roanoke. After the hotel closed, the building underwent extensive renovations and in 2011 was re-opened with luxury apartments for urban living. Students from Jefferson College of Health Sciences reside on the third through sixth floors. Each apartment unit within the Patrick Henry features the following:

- Hardwood Floors
- Granite Countertops
- Full Kitchen Featuring Stainless Steel Appliances, Including a Dishwasher and Garbage Disposal
- Washer and Dryer

The Patrick Henry residence hall is managed by a staff of Resident Advisors and the Coordinator of Residence Life. The Residence Life staff works together to promote community within the residence hall and to uphold College standards and policies.

Students living in the residence hall have the option of participating in a meal plan offered at Carilion Roanoke Community Hospital and Carilion Roanoke Memorial Hospital.

Campus Life

The College sponsors activities and student organizations as a means to enrich student life and enhance the college experience. These include participation in civic, cultural, social, club athletic, and recreational programs. Co-curricular pursuits enable students to better internalize the College mission and values and apply them to personal and professional growth. More information on these activities can be found in the Student Handbook.

Security

The College and surrounding parking lots are patrolled by Carilion Clinic police officers 24 hours a day. A security officer is on College premises 24 hours a day, seven days a week. Each floor is monitored via closed-circuit security cameras. For students living in the residence hall within the Patrick Henry, there is a Resident Advisor on duty each night of the week beginning at 8pm and ending at 7am the following morning. Resident Advisors may contact Carilion Clinic police or the Coordinator of Residence Life for assistance as necessary.

New Student Orientation

New Student Orientation (NSO) is required for any new student who will be attending Jefferson College for the first time. Available NSO dates, the New Student Orientation Brochure, and other information pertaining to NSO are posted on the College website by following the link from the home page titled: Prospective Students. Additionally, all new students are required to attend the College Convocation Ceremony and academic program orientations, which are typically scheduled for the week prior to the beginning of fall semester classes.

Code for Student Conduct

The College expects students to uphold high standards of ethical behavior, academic excellence, and personal conduct and to embrace the Community Values and Standards found in the *Jefferson Student Handbook*.

Students, therefore, will be held accountable for their behaviors and actions. Failure to abide by the Student Code of Conduct or honor code, as set forth in

the *Jefferson Student Handbook* will result in sanctions appropriate to the violation.

Counseling Services

Counseling and Wellness is a department within the Division of Student Affairs. Counseling is a free and confidential service, provided for Jefferson students, that seeks to assist in the development and maintenance of students' academic and personal growth. While students are expected to accept the responsibility for making their own decisions, counselors are available to assist them in making necessary adjustments for improving academic skills, learning to better communicate, strengthening relationships, and solving problems that interfere with learning. Counseling can often provide assistance in dealing with loneliness, anxiety, frustrations and depression associated with the college experience.

Professional counselors and graduate students enrolled in master's degree counseling programs provide services at the College. Confidentiality is strictly maintained for all personal information shared in counseling.

Specific services include:

- Individual and group counseling
- Academic skills development
- Preparation for state or national certification exams
- Career counseling and testing
- Assistance with disability accommodations
- Referral for educational testing for learning disabilities
- Crisis intervention

Eligibility for Services

All College students are eligible for Counseling Services.

Limits of Service

Counselors provide primarily short-term or brief therapy. If more intensive care, certain specializations or hospitalization services are needed, the staff can assist in making referrals to outside mental health providers.

Appointments

Initial, non-emergency appointments are usually scheduled within one week of the request. Appointments are generally made between normal business hours. To make an initial appointment, stop by the Student Affairs Suite on the 4th floor of Community Hospital or call (540) 985-8395. **In the event of an after-hours emergency, please call RESPOND 776-1100 or CONNECT 981-8181.**

Confidentiality

Communication with Counseling and Wellness is confidential. Contact made with the Counseling Department and information resulting from individual sessions does not become a part of one's student record in the Registrar's Office.

No counseling information can be released without the written permission of the client. The exceptions to confidentiality, as mandated by state law, include: when the information relates to clear and imminent danger to an individual; when there is reason to believe that a child or vulnerable adult has been, or is likely to be, abused or neglected; or when the information is requested by a valid court order. Any disclosure in these situations will be made to an appropriate authority and will be limited to material directly related to the issue involved.

It is important to note that College counselors are allowed to discuss academic information with appropriate College faculty and staff according to FERPA regulations. No other, non-academic information will be released without the student's written consent.

PASS (Pathways to Academic Success)

The PASS Program is designed to help students who may need some assistance in meeting college requirements or academic goals due to academic difficulties or for students who desire to improve their study and test-taking skills. Referral can occur before (through the Alternate Admissions Program) or after admission to Jefferson College. Faculty, advisors, program directors, or any Jefferson staff member can refer a student to PASS. Students who feel they would benefit from the program are also strongly encouraged to come to PASS on their own. After referral, PASS students meet with a counselor for an assessment and decide on mutually agreed upon goals and methods to achieve them. Students can expect to get suggestions on ways to improve their skills in the first meeting. The counselor and the student decide at the conclusion of the first meeting if follow-up meetings are needed. Resources for PASS students include, but are not limited to, academic counseling to improve study skills, test taking skills, time management and organization, personal counseling, regular meetings with advisors and tutoring. For more information on the PASS program or to set up an appointment, log into Starfish and click on the success network link or contact the Director of Academic Support Services located in the Student Affairs Suite, Fourth Floor, CRCH.

Learning and Writing Center (LWC)

The Learning and Writing Center (LWC) provides tutoring and writing assistance for students who want additional academic support. Tutoring is provided by trained peer tutors on a one-on-one, drop-in, or small group basis. Writing assistance is provided by the LWC staff. During an appointment, LWC staff will

provide suggestions and guidance to help students improve their academic performance and skills. Students will meet tutors in the LWC, which is located in the Learning Commons on the 5th floor, room 517 or in the designated tutoring room in Student Affairs (4th floor). If a student needs tutoring and/or writing assistance, they should contact the LWC Coordinator or schedule an appointment using Starfish.

Services for Students with Disabilities

The College is committed to serving students with disabilities by providing appropriate accommodations in compliance with federal and state regulations. Under College policy and federal and state laws, qualified people with disabilities are entitled to reasonable accommodations that will allow them access to College programs, jobs, services, and activities, unless the accommodations would pose an undue hardship on the College. An individual is considered to have a "disability" if s/he has a physical or mental impairment that substantially limits one or more major life activities, has a record of such an impairment, or is regarded as having such an impairment that substantially limits a major life activity (such as learning, caring for oneself, seeing, breathing, walking or working). A qualified person with a disability is someone whose experience, education, and training enable the person to perform the fundamental job duties and/or meet essential course and program requirements, with or without a reasonable accommodation. An accommodation is any change in the work or learning environment, or in the way things are customarily done, that enables a person with a disability to have equal employment or educational opportunities.

Jefferson is equipped to provide needed accommodations for most programs. Jefferson has designated the Coordinator for Disability Services, in Room 506 (across from the Learning and Writing center) as the person who coordinates services for students with disabilities. Students with disabilities who desire accommodations must schedule a meeting with the Coordinator for Disability Services to discuss program accessibility and individual needs. Reasonable accommodations will be made when requested and supported by appropriate documentation. For more information, request a guide for students with disabilities by calling Katie Winters at (540) 985-8215 or emailing her at *krwinters@jchs.edu*.

A request for accommodation is deemed reasonable if it:

1. is based on individual documentation;
2. allows the most integrated experience possible;
3. does not compromise essential requirements of a course or program;
4. does not pose a threat to personal or public safety;
5. does not impose undue financial or administrative burden on the College; and
6. is not of a personal nature (i.e. hiring of personal care attendants).

It is the student's responsibility in the accommodation process to do the following:

- Declare a disability. Students may voluntarily contact the Coordinator for Disability Services to declare a disability prior to the completion of the admissions process for the purpose of providing information concerning their disability;
- Or the Admissions acceptance packet provides an opportunity for students with disabilities to declare. Responses are addressed directly to the Coordinator for Disability Services, kept confidential, and used only to assist in planning reasonable accommodations;
- Contact the Coordinator for Disability Services for formal disclosure at any time during his enrollment. The point in time at which a student chooses to identify a disability remains at the student's discretion. However, the College is not responsible for making retroactive accommodations;
- Provide, at the student's expense, current appropriate documentation of the disability from a medical or other licensed professional qualified to diagnose the disabling condition;
- Examples of valid documentation of a disability would be as follows:
    - Individualized Education Plan with diagnoses of the disability
    - Psychological assessment performed by a doctor and diagnoses of the disability
    - Letter or other documentation from a Primary Care Physician informing of disability and restrictions

Student Discrimination Complaint Procedure

Under 34 C.F.R. § 104.7(b) the College is required to adopt a grievance procedure providing for the prompt and equitable resolution of complaints alleging noncompliance with Section 504 or its implementing regulations that incorporate appropriate due process standards. Jefferson College of Health Sciences has a complaint procedure to deal promptly and fairly with concerns and complaints about discrimination based on disability as well as other areas of discrimination. The procedure may be used by any student who believes that he or she has been discriminated against or harassed based on race, color, religion, sex, sexual orientation, national origin or citizenship status, age, disability, or veteran's status.

Anyone may bring forward information or a concern about discrimination or harassment. Complaints are handled as confidentially as possible to protect the

rights of both the complainant and the person accused. Retaliation against anyone who makes a complaint or participates in a complaint process will not be tolerated.

Disability Grievance Procedure

All Section 504 complaints, excluding those filed against the Section 504 Coordinator, should be addressed to:

Coordinator for Disability Services, Fifth Floor CRCH, Office #506

Jefferson College of Health Sciences
101 Elm Avenue S. E.
Roanoke, VA 24013

All complaints filed against the Coordinator for Disability Services should be addressed to:

Dean for Student Affairs, Student Affairs Suite, Fourth Floor CRCH
Jefferson College of Health Sciences
101 Elm Avenue S. E.
Roanoke, VA 24013

Complaints must be filed in writing within 180 days after the complainant becomes aware of the alleged violation. It must contain the name and address of the person(s) filing the complaint and a description of the alleged violation.

An investigation, as may be appropriate, shall follow the filing of the complaint. The Coordinator for Disability Services or the Office of the Dean for Student Affairs, depending upon the nature of the grievance, shall conduct the investigation. All interested persons and their representatives will have an opportunity to submit evidence relevant to the complaint.

Either the Coordinator for Disability Services or the Dean for Student Affairs will issue a written determination as to the validity of the complaint and a description of the resolution. A copy will be forwarded to the complainant no later than thirty (30) working days after receipt of the complaint.

Upon receipt of the decision of the Coordinator for Disability Services, if the student is not satisfied, he/she may file an appeal to the Dean for Student Affairs. The Office of the Dean must receive the appeal no later than thirty (30) working days after the date of the written determination by the Section 504 Coordinator. The Office of the Dean for Student Affairs, as may be appropriate, shall conduct an investigation and the Dean shall issue a written determination as to the validity of the complaint and a description of the resolution. A copy will be forwarded to the complainant no later than thirty (30) working days after receipt of the complaint.

If the student wishes to appeal a decision of the Dean for Student Affairs, he/she may file an appeal to the President of the College. The Office of the President must receive the appeal no later than thirty (30) working days after the date of the written determination by the Dean. The Office of the President, as may be appropriate, shall conduct an investigation and the President shall issue a written determination as to the validity of the complaint and a description of the resolution. A copy will be forwarded to the complainant no later than thirty (30) working days after receipt of the complaint. The decision of the President is final.

OR

The student may file a complaint with the Office of Civil Rights by accessing the complaint form and instructions at:
http://www.ed.gov/offices/OCR/complaintintro.html.

Or, by writing to:

Washington DC (Metro)
Office for Civil Rights
U.S. Department of Education
400 Maryland Avenue, SW
Washington, D.C. 20202-1475

Telephone: 202-453-6020
FAX: 202-453-6021; TDD: 877-521-2172

E-mail: *OCR.DC@ed.gov*

OR

The student may initiate legal proceedings through the attorney of his/her choosing.

Student Technology Use Policies

These policies ensure that all students have access to important technology resources and electronically delivered communication. Jefferson College of Health Sciences (Jefferson) reserves the right to limit, restrict, or extend computing privileges and access to its technology resources. All college technology resources are to be used in a responsible, efficient, ethical, and legal manner. Failure to adhere to these policies may result in suspension or revocation of access and/or accounts. Questions or comments about these policies should be directed to the Dean for Student Affairs.

Technology Account Policy

The College Admissions Office sends an email to applicants providing them information on how to create their Jefferson Self-Service account (student information and registration system). Once the student deposits into a program, an email is sent from Carilion Technology Service Group which provides them with information regarding their email and Blackboard (Learning Management System) accounts. Students are expected to utilize all three systems during their enrollment at Jefferson and are responsible for content and information provided through these systems.

College Owned Computers and Computer Labs

Computers in the student computer labs are available to current Jefferson College of Health Sciences students. Students may be asked to show an ID when using the labs to verify their status as a student. Students must use headphones when utilizing software with audio components. Food and drink are not permitted in any of the computer labs. Children are not permitted in any of computer labs.

All lab computers have connections to the College's computer network. This network provides access to the Internet. This service is provided free of charge to all current students. Individual computers may not be connected to the network. Routers and other devices that connect to the network jacks are not permitted. Students utilizing the network from residence halls should refer to the policy Technology Support for Students Living in Residence Halls for additional information.

Use of computers and network resources is a privilege, not a right. Appropriate use of Jefferson computers and network resources means 1) respecting the rights of other computer users; 2) protecting the integrity of the physical and software facilities; 3) complying with all pertinent license and contractual agreements; and 4) obeying all Jefferson policies, state, and federal laws.

Examples of misuse of Jefferson computers and network resources include but are not limited to:

a. Duplicating or using copyrighted materials without appropriate licenses and/or permission.

b. Copying, renaming, altering, examining, or deleting the files, programs, or work of another person or Jefferson without permission.

c. Attempting to disrupt services of the computing and network systems, including the knowing propagation of computer viruses.

d. Moving, reconfiguring, or tampering with equipment or engaging in activity of any kind that could disrupt services or damage computers or printers.

e. Utilizing the computers or network for commercial purposes.

f. Attempting to bypass the print-card system on Jefferson printers.

g. Knowingly transferring or allowing to be transferred to, from, or within the College's network, textual or graphical material commonly considered to be pornography or obscene.

Misuse of computers or network resources may result in disciplinary action and may also result in criminal prosecution.

Electronic Communications Policy

Electronic mail or "e-mail" is considered an official method for communication at Jefferson because it delivers information in a convenient, timely, cost effective, and environmentally-aware manner. The policies discussed in this section also apply to e-mail systems used in Blackboard and Starfish. Included with each e-mail account is a virtual storage space, ability to send and receive instant messages, and other electronic communications areas. All of these policies apply to any usage of this account not just the e-mail feature. This account is set up to provide communications related to your academic and student life here at Jefferson. Other uses of this account should be limited.

Expectations Regarding Student Use of Electronic Communications

Students are expected to check their official Jefferson e-mail on a frequent and consistent basis in order to remain informed of college-related communications. The College recommends checking e-mail daily. Students are responsible for any consequences of not reading their mail in a timely manner.

Jefferson offices cannot validate that a communication coming by e-mail is from a student unless it comes from a valid Jefferson e-mail address. If students contact administrative offices or faculty from outside e-mail accounts (Hotmail, AOL, etc.), they may be asked to resubmit their query using an official Jefferson account.

Faculty Expectations and Educational Uses of E-mail

Faculty members may require e-mail for course content delivery, class discussion, class communication, and instructor conferencing and may specify course-related e-mail policies in their syllabi.

Appropriate Use of Student Electronic Communications

All use of electronic communications will be consistent with other college policies and local, state, and federal law; the Family Educational Rights

and Privacy Act of 1974 (FERPA); and all applicable contracts and licenses.

Privacy of Electronic Communications

Privacy of electronic communication is not guaranteed. Authorized Jefferson personnel may monitor e-mail system usage for purposes of planning and managing resources, evaluating system performance, troubleshooting purposes, or investigating suspected abuse.

Students should also be aware that communication via blogs or social networking sites are not private communication and they can be held libel for their actions both under College policies and applicable local, state, and federal laws. Threats, slander, and other inappropriate comments or actions made on social networking sites against the College, its faculty and staff, and other students may be addressed through the College's student judicial process. Students should also take care not to present personal opinions and feelings as if endorsed by the College.

Misuse of Electronic Communications Systems

Examples of misuse of Jefferson-provided electronic communications systems include, but are not limited to:

- Circulating chain letters;
- Using college e-mail systems for: "for-profit" activities; "non-profit" or public, professional, or service organization activities unrelated to Jefferson;
- Large-scale distributions of unsolicited e-mail (sometimes called "spam");
- Sending fraudulent e-mail, breaking into another user's e-mail account, or reading someone else's e-mail without his or her permission;
- Disclosing proprietary information, without permission of the owner; and
- Knowingly transferring or allowing to be transferred to, from, or within the College's e-mail system, textual or graphical material commonly considered to be pornography or obscene.

Misuse of the College electronic communications system may result in disciplinary action and/or criminal prosecution.

Students Living In Residence Halls

Students living at the Patrick Henry, may choose at their own risk to connect a router or other devices to the high speed Ethernet connection provided. Students are responsible for all activity that takes place from their IP address and cable television connection. They are expected for follow all local, state, and federal laws including copyright laws. Downloading of any copyrighted materials on the College network is strictly prohibited and may result in judicial sanctions and/or criminal prosecution. The College will not shield students from the consequences of their actions if outside agencies seek prosecution or sanctions for illegally downloaded material.

All students are responsible for having up-to-date virus protection on any devices connected via the residence hall. Failure to do so may result in disconnection from the internet.

Violations of any of the technology and related policies may result in loss of the connections and other disciplinary action and/or criminal prosecution.

Students should report any trouble issues with their connection to their Resident Advisor.

Financing Your College Education

Finances

The Bursar's Office

CRCH, 4th Floor
Phone: (540) 985-8272
Fax: (540) 855-3585 Attn: Bursar's Office
Hours: 8:30 a.m. to 4:30 p.m. Monday-Friday

Meet the Staff

Tonia Andrews
Bursar
Phone: (540) 224-4508
E-mail: *tandrews@jchs.edu*

Lynn Freeman
Associate Bursar
Phone: (540) 985-9784
E-mail: *lmfreeman@jchs.edu*

Thea McKinney
Business Office Assistant
Phone: (540) 985-8272
E-mail: *timckenney@jchs.edu*

2014-2015 Tuition Chart

Undergraduate Programs - Full Time	$23,080 Fall and Spring (Does not include summer session), plus fees
Undergraduate Programs - Part Time	$670 per credit hour, plus fees
Graduate Program	$720 per credit hour, plus fees

The above tuition and fees are subject to annual review and may change from year to year. In the event that tuition and fees do change, students will be notified accordingly and the new tuition rates will be published in the catalog or addendum.

Tuition or admission cost for any program, other than a degree program, (i.e. a Continuing Education program) will be determined by that program at the time it is offered.

2014-2015 Fees and Incidentals Chart

Application fee (paper copy):	$35 (non-refundable)
Technology Fee full-time:	$150 per semester (no Summer fee)
Technology Fee part-time:	$150 per semester (no Summer fee)
Deposit Fee (PA, OT):	$500 (non-refundable)

The deposit fee serves as confirmation of the student's intent to enroll and is applied to the cost of attendance upon enrollment.

Deposit Fee - All Other Programs:	$200 (non-refundable)

The deposit fee serves as confirmation of the student's intent to enroll and is applied to the cost of attendance upon enrollment.

Audit Fee:	$100 per credit hour
Laboratory/Clinical/Externship Fees:	$60 per class, per semester, part-time students
Background Check Fee:	$60

(Required by Aug. 11, for all incoming fall students who will have clinicals)

Residence Hall Fee:	$2,835 per semester (Fall and Spring)
Residence Hall Fee:	$1,500 (Summer)
Meal Plan:	Meals are optional and can be added to the student's ID card in $100 increments. Unspent dollars are carried over from fall to spring semesters. Any remaining balance at the end of spring is forfeited. See the Student Affairs or Bursar's Office for further detail.
Late Payment Fee:	$50
Diploma Replacement Fee:	$60 (non-refundable)
Challenge Exams:	$10 for General Education Challenge exams, plus $100 per credit if the student passes the exam $50 for Nursing Challenge Exams, plus $100 per credit if the student passes the exam.

Billing Procedure

Each student will can view their invoice on their Self-Service account which lists the charges for each semester.

1. Payment of College expenses is the responsibility of the student. All charges are due on the date stated on the invoice. All tuition, fees and residence hall charges must be paid prior to class attendance.

    a. The student must clear his or her account by the due date stated on the invoice in order to maintain valid registration.

    b. Students receiving financial aid will receive an award letter from the Office of Financial Aid. If charges exceed the financial aid award, payment is expected prior to the due date stated on the invoice. If the financial aid award exceeds the charges, the student will receive a refund for the excess amount.

Refunds, which are processed 30 to 45 days after the start of the semester, can be picked up in the Bursar's office.

Payments and Payment Plan

Make checks and money orders payable to: Jefferson College of Health Sciences. We also accept cash, Visa, MasterCard, Discover, and American Express.

Payments should be mailed to:

Jefferson College of Health Sciences
Attn: Bursar's Office
101 Elm Ave. S.E.
Roanoke, VA 24013

All tuition, fees and residence hall charges must be paid prior to class attendance. Students receiving financial aid must pay any balance that exceeds their anticipated financial aid award. Late financial aid applicants are required to pay tuition and fees upon registration.

A tuition payment option is available to Jefferson College of Health Sciences students. This plan is administered through Sallie Mae.

The Sallie Mae tuition pay plan enables students to pay all or part of their expenses in five or nine equal monthly installments without interest. The only cost to the student is a $60 per plan enrollment fee. You can enroll on their interactive website at *www.tuitionpay.salliemae.com*.

Returned Checks

A returned check fee in the amount of $25 will be added to the student account along with the amount of the returned check.

Tuition Refund Policy

A statutory schedule based upon the percentage of the semester completed before the withdrawal date is used to determine the amount of tuition and fees that will be refunded if a student withdraws from class. If a student withdraws after 60% of the semester has passed, no refund will be given.

The percentage of semester completed is calculated using the total number of calendar days in the semester divided into the number of calendar days completed in that semester, as of the day the student withdraws.

Refund and Repayment Policies and Procedures

Refund and repayment policies and procedures for financial aid recipients are consistent with requirements specified by federal guidelines and regulations. The following information outlines how refunds and repayments of financial aid monies will be assessed for students who completely withdraw, drop out, take an unapproved leave of absence, are expelled from classes or otherwise fail to complete the period of enrollment for which they were charged after receiving financial aid disbursements for a semester.

Terms used in the “Refund/Repayment Policies” are defined as:

Refund – The amount of money credited to a student’s account, which the school is not entitled to keep based on the length of time the student attended classes. The refund amount is defined as the difference between the amount paid towards school charges (including financial aid and/or cash) and the amount the school can retain under the appropriate refund policy.

Repayment – The amount of cash disbursements given to a student for a semester to cover off-campus room, board, transportation, books, supplies, child care, and miscellaneous personal expenses which the student is not entitled to keep based on class attendance prior to withdrawal.

1098-T Information

A 1098-T will be mailed to students in January. The 1098-T informs the student of the possibility of a tax credit. The amount of eligible charges, along with scholarships and grants are provided on each 1098-T. It is the student's responsibility to determine eligibility for the tax credit.

Refunds for Residence Hall Rooms

Residence Life Contracts are binding for the entire academic year. There are a limited number of reasons that a student may be released from the responsibility of paying for both the fall and spring semesters once a contract has been submitted:

- Graduation from the College
- Marriage
- Withdrawal from the College for a reason other than an honor violation or potential expulsion

Those interested in living in the Patrick Henry should review the Residence Life Contract thoroughly before signing in order to understand all terms and conditions listed therein. The Residence Life Contract is the document that will take precedence in any situation that arises in which clarification of the refund policy for residence hall rooms is sought.

Financial Aid

The Financial Aid office at Jefferson is here to provide financial access for students to attend Jefferson College of Health Sciences. Our objective is to use all financial resources available to help students and their families realize their educational and career goals. It is our commitment to make the financial aid application process easy to understand and easy to obtain for families who are eligible.

Financial Aid is available from state and federal agencies, civic organizations, health agencies, foundations and institutional aid sources. Specific policies and/or laws regulate each program. A financial aid "package" is created for the student based upon their level of eligibility for these programs. This package includes aid from various sources (depending on the availability of funds) and will not exceed the amount of the student's direct cost. In most aid packages, the assistance offered covers only a portion of the total cost of education.

You are responsible for completing your aid applications by the published deadline and for asking questions when information is unclear. Each student applying for aid should complete the Free Application for Federal Student Aid (FAFSA). We encourage students and their families to complete this application at the beginning of each year as soon as their Federal Income Tax Return has been filed. The application can be filed electronically at *www.fafsa.ed.gov*.

Please call our office with any questions that you may have regarding Financial Aid assistance at Jefferson.

Staff Contact and Office Information

Location: 4th Floor of the Carilion Roanoke Community Hospital (across from the Bursar's Office) Office Hours: 8 a.m. to 4:30 p.m., Monday through Friday
Address: 101 Elm Avenue, SE
Roanoke, VA 24013
E-mail: *financialaid@jchs.edu*
Phone: (540) 985-8267
Fax: (540) 224-6916

Staff:

- Debra Johnson, Director of Financial Aid
- Wesley Vorberger, Assistant Director of Financial Aid
- David Bachelder, Financial Aid Representative
- Randall Thornton, Financial Aid Representative
- Victoria Rodriguez, Department Secretary

Our School Code

The Jefferson College of Health Sciences school code is 009893.

Completing the Financial Aid Steps

The Financial Aid Process:

Step 1:
Obtain your Personal Identification Number (PIN) and file the Free Application for Federal Student Aid (FAFSA) at *www.fafsa.ed.gov*. The Jefferson College of Health Sciences' federal school code for the FAFSA is 009893.

Step 2:
Apply for additional sources of Financial Aid. Things like the Virginia Tuition Assistance Grant (VTAG) (*http://www.schev.edu/forms/TAGApplication1314.pdf*), Institutional Scholarships (*http://www.jchs.edu/page.php/prmID/891),* Outside Scholarships, and the Federal Work Study program are just some of the additional student funding opportunities available.

Step 3:
Review and apply for Federal Direct Loans as needed. There are several types of student loans made available by the Department of Education Direct Lending program. To begin the process, visit *www.studentloans.gov* and complete a Master Promissory Note (MPN) and Entrance Counseling. The Jefferson College of Health Sciences' federal school code for Direct Loans is 00662200.

Step 4:
Complete any outstanding requirements for your Financial Aid package.
Check your e-mail or self-service account for information regarding additional requirements for your Financial Aid. Some students must provide additional information for the FAFSA Verification process, VTAG applications, or to resolve issues with the student's FAFSA. You will be contacted by the Financial Aid Office if any of these apply to you.

Helpful Hints:

- If you are receiving **Veteran's Benefits**, please contact the Financial Aid Office to fill out the appropriate paperwork.
- If you are interested in a **Federal Work Study (FWS)** position, contact the College Human Resources Representative Office (Administration) and then fill out the FWS Application at http://chsweb.carilion.com
- If you want anyone else to be able to see or talk about your Financial Aid information with the Financial Aid Office (e.g. your mother, your father, etc.), you must fill out a **Permission to Release Information** form. Stop by or e-mail the Financial Aid Office for a copy.
- You will receive an **Award Letter** via mail or e-mail that details the specifics of your Financial Aid package (i.e. how many loans, grants, and scholarships you will be getting for that semester or school year).
- Keep a copy of **all** your Financial Aid documentation in a folder for future reference.

To complete the application on-line is a 3-step process.

1) Apply for a PIN (Personal Identification Number) at *www.pin.ed.gov*. You'll need this PIN to electronically sign your FAFSA application.
2) Complete the electronic FAFSA at *www.fafsa.ed.gov* and review your answers carefully.
3) When you receive the results of your application, the Student Aid Report (SAR), review it for accuracy. Provide any needed information requested by the school as quickly as possible.

The Free Application for Federal Student Aid is your doorway to all forms of federal aid. Eligibility for the student loan program and the supplemental grant program are determined using the FAFSA.

The Virginia Tuition Assistance Grant (VTAG) Program application for Virginia

residents must be completed to gain access to the Virginia Tuition Assistance Grant program.

Financial Aid at Jefferson College of Health Sciences is awarded based upon financial need and other awarding criteria. Need is determined by the following calculation:

Cost of Attendance
- Expected Family Contribution (better known as "EFC")
= Financial Need

The income, assets, and household information you report on the Free Application for Federal Student Aid (FAFSA) is used in a formula developed by the U.S. Congress to determine your eligibility for Federal Student Aid. Your Expected Family Contribution (EFC) is the amount of resources you should have to contribute toward your education, based on the information from your FAFSA application.

The Financial Aid staff creates a "financial aid package" based upon the student's eligibility that comes as close as possible to meeting the student's needs, up to direct cost.

This awarding policy allows the Office of Financial Aid to assist a broad base of students with limited funds.

To receive the balance of an award through Direct Deposit into your checking or savings account, please fill out the Direct Deposit Authorization Form (form available on our website).

For additional academic requirements for Continuance of Financial Aid Policy, please visit our website.

Financial Aid Sources

State:

Virginia Tuition Assistance Grant Program, (VTAG)

Federal:

Federal Pell Grant
Federal Supplemental Education Opportunity Grant (SEOG)
Federal Direct Stafford Loan (Subsidized and Unsubsidized)
Federal Direct Parent Loan for Undergraduate Students (PLUS)
Federal Direct Graduate PLUS Loan
Federal Work Study (FWS)

Veterans' Benefits: Most Programs are approved for veterans' training. Amounts of benefits payable vary with eligibility and enrollment status. Contact the Office of Financial Aid for details.

Please note: Jefferson College of Health Sciences does not participate in the Perkins Loan Program.

Institutional Scholarships and Grants

Jefferson offers institutional aid, scholarships, and grants in addition to the many federal financial aid programs available. These include:

Debra Kimmel McNamara Nursing Scholarship
Seavor Scholars Fund
Donna Mathews Scholarship
Dr. Robert L.A. Keeley Scholarship in Respiratory Care
Stanley Kamm Memorial Nursing Scholarship
Theresa Thomas Memorial Scholarship
S. Lynn Marshall Emergency Fund
Dr. Hugh Trout, Sr. Endowment
Rita M. Bishop Scholarship
James I. Sublett Nursing Scholarship
Dorothy L. Gibboney Memorial Scholarship
Dr. Frederick Louis Troxel Nursing Scholarship
Dr. John L. Echternach, Jr. Memorial Scholarship
George Solonevich Scholarship
James H. Neuhoff Memorial Scholarship
Friendship Retirement Community Scholarship
Jefferson College of Health Sciences Scholarship
Jefferson College of Health Sciences Grant

Virginia Tuition Assistance Grant (VTAG) - The Virginia Tuition Assistance Grant Program application for Virginians must be completed to gain access to the Commonwealth of Virginia assistance program. The VTAG is available to both undergraduate and graduate students. Current amount of VTAG is $3,100 for undergraduate programs and $1,550 for graduate programs. Eligibility for the Virginia Tuition Assistance Grant is limited to four years or eight (8) semesters for undergraduates and up to degree completion, but no more than three years at the graduate level; whichever comes first. The Virginia Tuition Assistance Grant is limited to tuition assistance.

Student Loans

Students must maintain half-time enrollment (6 credit hours) to participate in the Federal Student Loan Program. This Program includes the Direct Stafford Subsidized Loan, Direct Stafford Unsubsidized Loan, the Direct Parent Plus Loan and the Direct Grad Plus loan.

Federal Direct Subsidized Stafford - Low-interest loans, must be at least half-time, repayment begins 6 months after graduation, withdrawal or falling below half-time, government pays interest while student is enrolled in school, not based on credit history. Maximum eligibility period is equal to 150% of the published length of the academic program. For annual loan limits see the chart below.

Federal Direct Unsubsidized Stafford - Low-interest loans, must be at least half time, repayment begins 6 months after graduation, withdrawal or falling below half time, and interest is the responsibility of the student, not based on credit history. For annual loan limits see the chart below. You will be charged interest from the day the loan is disbursed until it's paid in full, including in school, grace, and deferment and forbearance periods.

Direct Stafford Loan Chart of Loan Limits for Undergraduate Students

AWARD YEAR	DEPENDENT STUDENT	INDEPENDENT STUDENT
1st Year	Subsidized: $3,500.00 Unsubsidized: $2,000.00	Subsidized: $3,500.00 Unsubsidized: $6,000.00
2nd Year	Subsidized: $4,500.00 Unsubsidized: $2,000.00	Subsidized: $4,500.00 Unsubsidized: $6,000.00
3rd Year	Subsidized: $5,500.00 Unsubsidized: $2,000.00	Subsidized: $5,500.00 Unsubsidized: $7,000.00
4th & 5th Year	Subsidized: $5,500.00 Unsubsidized: $2,000.00	Subsidized: $5,500.00 Unsubsidized: $7,000.00

Direct Stafford Loan Chart of Loan Limits for Graduate Students

AWARD YEAR	GRADUATE STUDENT
	Unsubsidized: $20,500.00

Federal Direct Plus & Grad Plus Loan - Low-interest loans for Parents of dependent students or Graduate students, repayment begins 30-45 days after last payment is released or credited to student account. The Plus/Grad Plus loan is based on credit history. The yearly limit on a PLUS/Grad PLUS loan is equal to the cost of attendance minus any other financial aid received. If the parent is denied a loan the dependent student is allowed to request additional unsubsidized loan funds. Interest is charged on the loan from the date the first disbursement is made until the loan is paid in full.

Alternative Loans - Alternative loans are funds available to students who are not eligible for financial aid or who need additional funds to meet educational

expenses. The student's eligibility is determined by the cost of attendance minus financial aid.

Tracking the Status of Your Loan

You may track the status of your federal loan at:

https://studentloans.gov/myDirectLoan/index.action

Entrance and Exit Interviews

All students who have received federal student loans must complete entrance and exit interviews. Please go to the student loan counseling section of the Direct Loan website for all information on loans.

Aid for International Students

International students are awarded Institutional Awards based upon Admissions criteria.

Financial Aid Links

These links are great resources of information about federal and state financial aid.

- www.ed.gov
- www.schev.edu
- www.collegeboard.com
- www.finaid.org

Title IV Funds – The following aid sources are federal monies governed by Title IV, U. S. Department of Education (USDE) regulations:

- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal Work Study Program
- Federal William D. Ford Direct Loan Program

Non-Title IV Funds – The following aid sources are categorized as non-Title IV funds:

- Virginia Tuition Assistant Grant Program (VTAG)
- Other state, private, or institutional sources of aid

Return of Title IV Policy

Federal law requires students who withdraw from the College after receiving

federal financial aid to return funds not earned to the U.S. Department of Education. If a student receives more funds than he or she earned, the College and, in some cases, the student must return the funds.

A statutory schedule is used to determine the amount of Student Financial Aid Program (SFA) funds a student has earned if withdrawal from classes occurs prior to the end of the term. If the student withdraws from class after 60% of the semester has passed, no refund of SFA funds is required to be made to the funding agency. Withdrawals prior to this 60% threshold require refunds of SFA Program assistance to the funding agency in an amount equal to the percentage of time the student was enrolled in and attending classes.

The percentage of the semester completed is calculated using the total number of calendar days in the semester for which the College awards the assistance, divided into the number of calendar days completed in that semester, as of the day the student withdraws.

The College refund of SFA Program funds does not mitigate the student's obligation to make payments to the College for services provided, in accordance with College policy.

Order of Return of SFA Program Funds

Funds credited to outstanding loan balances for the semester for which a return of funds is required must be returned in the following order:

- Federal Direct Unsubsidized Stafford loans
- Federal Direct Subsidized Stafford loans
- Federal Direct PLUS/GRAD PLUS loans

If funds remain after repaying all loan amounts, those remaining funds must be credited in the following order:

- Federal Pell Grants
- Federal Supplemental Educational Opportunity Grants (FSEOG)
- Other assistance under this Title for which a return of funds is required

Students may contact the Office of Financial Aid to receive details and examples of the Title IV refund policy.

Satisfactory Academic Progress for Continuance of Financial Aid

In order to receive federal and state financial aid, students must be in an eligible program of study and making satisfactory progress in their course of study as outlined in the *Academic Information* section of this catalog. All entering students at the College, including those returning after a period of non-enrollment, are admitted with the confidence that they will make satisfactory progress.

All students who receive federal financial aid must be making satisfactory progress toward graduation. Satisfactory academic measurable progress for financial aid purposes is defined as a passing grade ("A," "B," "C," "D" or "P") in at least two-thirds of the credit-hour load in which the student is enrolled each semester. Undergraduate students are required to maintain a cumulative grade point average of 2.00 ("C") or better. Graduate students are required to maintain a cumulative grade point average of 3.00 ("B") or better. Students may receive financial aid for up to 150% of the length of an academic program.

If a student has not maintained the minimum standards by the end of the semester, financial aid assistance will continue in a warning status for a period of one (1) semester. If a student is on warning and satisfactory progress is attained, then financial aid is continued and the warning status is removed. If a student has been placed on warning and at the end of the warning semester satisfactory academic progress is not attained the student is placed on Financial Aid Suspension and no Federal aid is awarded. Students re-enrolling after periods of non-enrollment or changing academic programs following program dismissal or suspension will be evaluated based on their last period of enrollment.

A student will be terminated from Financial Aid without a warning period semester if he/she:

- Has attempted 150% of their program of study. All attempted hours will be considered, including transfer hours from other institutions.
- Fails to maintain a minimum 2.0 cumulative grade point average midway through their program of study.

Appeal Process for Students on Financial Aid

Students placed on Financial Aid Suspension may appeal their status. Students who choose to appeal must submit a letter clearly outlining the unusual circumstances with supporting documents to the Office of Financial Aid. The Financial Aid Appeals Committee will review the student appeal request on an as needed basis. The student may request to attend the committee meeting to explain their situation. The Committee will review the appeal and the student will be notified in writing of the decision. All decisions are final.

The Reinstatement Process

Reinstatement means that the student has resolved his/her suspension status and will be considered for Federal Aid another term. In case of less than satisfactory academic progress, reinstatement of aid in full is atypical and is based on unusual circumstances affecting academic progress that were not within the student's control and are not of a recurring nature.
A student may be reinstated:

- If a grade change results in an increase in the cumulative grade point average and/or percent of cumulative credits completed.
- After completing credits to raise the cumulative grade point average and/or completion rate of credit hour attempted.

The student must notify the office of financial aid of any changes that may result in reinstatement.

Student Withdrawals and Refunds

The College incurs costs based on student registration data. Since many of the costs cannot be recovered, refunds to students are limited. A student who completely withdraws from the College is eligible for a refund of tuition and refundable fees as described in the institutional refund based on withdrawal date policy. Tuition refunds for individual classes are addressed in the Drop/Add section.

Add/Drop

Adding or dropping courses must occur in accordance with the *Academic Information* section of this catalog. Changes to the number of credit hours enrolled may affect the status of some financial aid. The student is responsible for any additional cost incurred due to a change in credit hours.

Withdrawal Date

The withdrawal date policy listed below is strictly for the purposes of financial aid. For academic purposes, see the *Academic Information* section of this catalog.

The withdrawal date, as determined from the attendance records is usually:

- The date the student began the withdrawal process prescribed by the school
- The date the student otherwise provided official notification to the school of the intent to withdraw; or
- If the student did not begin the withdrawal process or otherwise notified the school of the intent to withdraw, the midpoint of the semester for which SFA Program assistance was disbursed or a later date documented by the school.

If the school determines that a student did not begin the withdrawal process or otherwise notify the school of the intent to withdraw due to illness, accident, serious personal loss, or other circumstances beyond the student's control, the school may determine the appropriate withdrawal date.

Course Descriptions

ACC 121 Accounting I CREDITS: 3
This course is designed to acquaint students with the theory and logic underlying accounting procedures and principles. The course content includes the basic accounting cycle, special journals, systems and control, short-term liquid assets and inventories.

ACC 141 Accounting II CREDITS: 3
A continuation of the principles learned in ACC 121. The course content focuses on the comprehension of long-term assets and liabilities, current liabilities and payroll, partnerships, corporations, inter-company investments, the statement of cash flows and financial statement analysis.
Prereq: ACC 121

ACC 211 Principles of Financial Accounting CREDITS: 3
The goal of financial accounting is to provide reliable information useful for making economic decisions. This course identifies, processes, and communicates information about the financial performance and condition of a business.

ART 210 Visual Thinking Strategies: Art/Abil See CREDITS: 3
Using some of history's most important works of art, this course explores Visual Thinking Strategies as a means of enhancing visual acuity, increasing sensitivity to surroundings, and building collaboration skills.

ART 211 Drawing I CREDITS: 3
This is a one-semester studio course concentrating on perspective, portraiture, figure drawing and composition using pencil and charcoal as the primary media. The course offers a means by which the student may develop independent thinking, environmental awareness and self-expression.
Prereq: ART 210

ART 212 Drawing II CREDITS: 3
This is a one-semester studio course that expands on the experiences and processes of Drawing I. The student will gain additional knowledge and skill through work with pen and ink, stipple and ink washes.
Prereq: ART 211

BIO 101 General Biology I CREDITS: 4
This is the first of a two-semester lecture and laboratory study of general biology. The course focuses on the basic cellular processes common to living organisms. These include aspects of molecular and cell biology, metabolism and photosynthesis, genetics, and biotechnology. The laboratory component of the course focuses on principles of basic experimental design, data collection, data graphing, and methods of biochemical analysis. The structure and function of nucleic acids, as well as basic cell structure and function are also considered. Mendelian geneti is developed in detail. Experimental work in the laboratory is closely correlated with the lecture component.
Coreq: BIO 101L

BIO 101L General Biology I Laboratory CREDITS: 0
This is the first of a two-semester lecture and laboratory study of general biology. The course focuses on the basic cellular processes common to living organisms. These include aspects of molecular and cell biology, metabolism and photosynthesis, genetics, and biotechnology. The

laboratory component of the course focuses on principles of basic experimental design, data collection, data graphing, and methods of biochemical analysis. The structure and function of nucleic acids, as well as basic cell structure and function are also considered. Mendelian geneti is developed in detail. Experimental work in the laboratory is closely correlated with the lecture component.
Coreq: BIO 101

BIO 102 General Biology II CREDITS: 4
This is the second of a two-semester lecture and laboratory study of general biology. The course focuses on population, speciation, systematics, cladistics, and invertebrate and vertebrate evolution. Animal systems from Porifera through Primates are considered in detail to elaborate the phylogeny of invertebrates through vertebrates. Experimental work in the laboratory is closely correlated with the lecture component.
Prereq: BIO 101
Coreq: BIO102L

BIO 102L General Biology II Laboratory CREDITS: 0
This is the second of a two-semester lecture and laboratory study of general biology. The course focuses on population, speciation, systematics, cladistics, and invertebrate and vertebrate evolution. Animal systems from Porifera through Primates are considered in detail to elaborate the phylogeny of invertebrates through vertebrates. Experimental work in the laboratory is closely correlated with the lecture component.
Coreq: BIO 102

BIO 151 Survey of Human Anatomy and Physiology CREDITS: 3
This course addresses the fundamentals of human anatomy and system physiology. Emphasis will be placed on cardiovascular and respiratory system function. Additional attention will be devoted to neuroendocrine control of visceral effectors and to homeostasis. Students' understanding of all of
the systems will be developed during the survey.

BIO 199L Biology Supervised Study I CREDITS: 1
This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.
Prereq: BIO 101

BIO 211 Anatomy & Physiology I CREDITS: 4
This is a lecture and lab course that focuses on the basic structure and function of the human body for students preparing for professions in the healthcare field. This is the first of in a sequence of two courses in anatomy and physiology. The course will prepare students for continued study of human physiology and disease processes in subsequent courses. The content includes detailed consideration of basic cellular processes, integumentary, skeletal, muscular, and nervous system anatomy and physiology. The laboratory component closely follows lecture and is designed to support the lecture with a laboratory experience that will require student participation in animal dissection and experimentation in basic physiology.
Coreq: BIO 211L

BIO 211L Anatomy & Physiology I Laboratory CREDITS: 0

This is a lecture and lab course that focuses on the basic structure and function of the human body for students preparing for professions in the healthcare field. This is the first of in a sequence of two courses in anatomy and physiology. The course will prepare students for continued study of human physiology and disease processes in subsequent courses. The content includes detailed consideration of basic cellular processes, integumentary, skeletal, muscular, and nervous system anatomy and physiology. The laboratory component closely follows lecture and is designed to support the lecture with a laboratory experience that will require student participation in animal dissection and experimentation in basic physiology.

Coreq: BIO 211

BIO 212 Anatomy & Physiology II CREDITS: 4

This is the second in a sequence of two courses in anatomy and physiology for students preparing for professions in the healthcare field. The course provides a study of the basic structure and function of the human body with an emphasis on system anatomy and current theories of physiology. The course will prepare students for continued study of human physiology and disease process in subsequent courses. The course focuses on cardiovascular, respiratory, endocrine, digestive, immune, reproductive and urinary systems. The laboratory component closely follows the lecture and is designed to support the lecture with a laboratory experience that will require student participation in animal dissection and experimentation in basic physiology.

Prereq: BIO 211

Coreq: BIO 212L

BIO 212L Anatomy & Physiology II Laboratory CREDITS: 0

The laboratory component closely follows lecture and is designed to support the lecture with a laboratory experience that will require student participation in animal dissection and experimentation in basic physiology.

Coreq: BIO 212

BIO 215 Introduction to Scientific Literature CREDITS: 2

This course introduces further learning of scientific research through the understanding of key elements in the biological scientific literature. A survey of the different bodies of reference materials available for research in the biological literature will be offered. This course will provide the opportunity to gain proficiency in accessing, interpreting and synthesizing messages from different research efforts in the life sciences. The student will ultimately be able to learn how to use the biological literature in order to evaluate specific scientific publications.

BIO 230 Comparative Anatomy CREDITS: 4

This course focuses on the anatomical study and dissection of representative chordates. Laboratory will illustrate and expand on lecture.

Prereq: BIO 102

Coreq: BIO 230L

BIO 230L Comparative Anatomy Laboratory CREDITS: 0

This course focuses on the anatomical study and dissection of representative chordates. Laboratory will illustrate and expand on lecture.

Coreq: BIO 230

BIO 240 Comparative Physiology CREDITS: 4

This course will introduce the student to the concept of homeostasis and compare the physiological

processes in various chordates. The following systems will be examined: nervous, muscular, cardiovascular, respiratory, endocrine, digestive and renal. In addition, integrative topics such as fluid and pH balance, thermoregulation and metabolism will be considered. Laboratory will expand on and illustrate lecture material.
Prereq: BIO 102
Coreq: BIO 240L

BIO 240L Comparative Physiology Laboratory CREDITS: 0
This course will introduce the student to the concept of homeostasis and compare the physiological processes in various chordates. The following systems will be examined: nervous, muscular, cardiovascular, respiratory, endocrine, digestive and renal. In addition, integrative topics such as fluid and pH balance, thermoregulation and metabolism will be considered. Laboratory will expand on and illustrate lecture material.
Coreq: BIO 240

BIO 253 Microbiology CREDITS: 4
This course provides a detailed study of the definition, scope, history and significance of microbiology to students preparing for professions in healthcare. The lecture focuses on microbial taxonomy, microbial structure, genetics and life history. It also considers the basic aspects of microbial physiology and their ability to cause infection. The course has emphasis on the human immune process, modes of microbial transmission and virulence. The laboratory component is designed to examine basic concepts of taxonomy, microbial morphology, staining characteristics, population studies, isolation methods and the control of microbes. The laboratory will require student participation in experimentation and observation of results in these basic microbiology concepts.
Prereq: BIO 212 or BIO 240
Coreq: BIO 253L

BIO 253L Microbiology Laboratory CREDITS: 0
This course provides a detailed study of the definition, scope, history and significance of microbiology to students preparing for professions in healthcare. The lecture focuses on microbial taxonomy, microbial structure, genetics and life history. It also considers the basic aspects of microbial physiology and their ability to cause infection. The course has emphasis on the human immune process, modes of microbial transmission and virulence. The laboratory component is designed to examine basic concepts of taxonomy, microbial morphology, staining characteristics, population studies, isolation methods and the control of microbes. The laboratory will require student participation in experimentation and observation of results in these basic microbiology concepts.
Coreq: BIO 253

BIO 299L Biology Supervised Study II CREDITS: 1
This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.
Prereq: BIO 199L

BIO 300 Pathophysiology CREDITS: 3
This course provides the student with conceptual and theoretical information applicable to pathological conditions resultant in disordered physiology. Mechanisms of production of signs and symptoms of different disease syndromes will be discussed. A body systems approach will be used to present the mechanisms underlying the disease, and the clinical manifestations exhibited.
Prereq: BIO 253

BIO 303 Fundamentals of Cellular Neurophysiology CREDITS: 4
This course familiarizes the student with the function of nervous tissues both at the level of the individual neuron and the level of neuronal circuits. Topics include a brief review of the history of neurobiology, an overview of neuronal cell structure, membrane properties, ion channels, resting membrane potential, the action potential, action potential propagation, synaptic physiology, intracellular signaling, neurotransmitter synthetic and degradative pathways, synaptic plasticity, and the role of neurons in circuits and in basic behaviors. Laboratories illustrate lecture material.
Prereq: BIO 212
Coreq: BIO 303L

BIO 303L Fund. of Cellular Neurophysiology Lab CREDITS: 0
This course familiarizes the student with the function of nervous tissues both at the level of the individual neuron and the level of neuronal circuits. Topics include a brief review of the history of neurobiology, an overview of neuronal cell structure, membrane properties, ion channels, resting membrane potential, the action potential, action potential propagation, synaptic physiology, intracellular signaling, neurotransmitter synthetic and degradative pathways, synaptic plasticity, and the role of neurons in circuits and in basic behaviors. Laboratories illustrate lecture material.
Coreq: BIO 303

BIO 304 Genetics CREDITS: 3
This course will introduce the students to the concepts of inheritance. It will encompass the general concepts of Mendelian genetics of both plants and animals. Emphasis will be on the application of these basic concepts to the human inheritance. Molecular considerations will focus on gene action and on gene variations within a genome.
Prereq: CHM 111 and (BIO 212 or BIO 102)

BIO 309 Physiological Foundations Pharmacology CREDITS: 3
This course is designed to address physiological foundations of pharmacology. The course includes and develops concepts in pharmacokinetics, pharmacodynamics, drug development, drug safety, drug selection and monitoring for safety issues. The course addresses drug classifications and appropriate uses and applications.
Prereq: BIO 253

BIO 312 Research Methodology CREDITS: 3
This course expands upon students' knowledge concerning the role of research in the biomedical sciences. The scientific method as well as research methods and processes are examined in detail. Students critically review healthcare-specific, empirical literature. Emphasis is placed upon the student's development of abilities to read, understand, and critically respond to current research from scientific journals. Emphasis is also placed on the ethics of the use of human subjects in biomedical research. Students are expected to evaluate critically and discuss research designs, sampling designs, data collection methods, and data analyses.
Prereq: (MTH 210 or MTH 301 or MTH 265) and BIO 215

BIO 321 Gross Anatomy I CREDITS: 3

This course is the first of a two semester lecture and laboratory study of human gross anatomy. It is designed to enhance and develop the general knowledge base received in a college-level anatomy and physiology course. Lecture discussions will support the laboratory. During the laboratory, students will be required to participate in the dissection of the entire musculoskeletal system of a human cadaver. Emphasis will be on osseous anatomical features, skeletal muscles, tendons, ligaments, nerves, and blood vessels that supply the skeletal muscles. Additional emphasis will be placed on body surface anatomy as it relates to skeletal features and to the underlying skeletal muscles.

Prereq: BIO 211 or BIO 230
Coreq: BIO 321L

BIO 321L Gross Anatomy I Laboratory CREDITS: 0

This course is the first of a two semester lecture and laboratory study of human gross anatomy. It is designed to enhance and develop the general knowledge base received in a college-level anatomy and physiology course. Lecture discussions will support the laboratory. During the laboratory, students will be required to participate in the dissection of the entire musculoskeletal system of a human cadaver. Emphasis will be on osseous anatomical features, skeletal muscles, tendons, ligaments, nerves, and blood vessels that supply the skeletal muscles. Additional emphasis will be placed on body surface anatomy as it relates to skeletal features and to the underlying skeletal muscles.

Coreq: BIO 321

BIO 322 Gross Anatomy II CREDITS: 3

This course is the second of a two-semester lecture and laboratory detailed study of human anatomy. It is designed to enhance and develop the knowledge base from the first semester of gross anatomy. Lecture discussion will support the laboratory. During the laboratory students will be required to participate in the dissection of a human cadaver. Lecture and laboratory emphasis will be on the dissection of the entire thoracic, abdominal and pelvic cavities. Lecture and dissection focus will also be on visceral structures, nerves and blood supply. In addition, the brain, brainstem and cranial nerves will be considered in anticipation of laboratory dissection.

Prereq: BIO 321
Coreq: BIO 322L

BIO 322L Gross Anatomy II Laboratory CREDITS: 0

During the laboratory students will be required to participate in the dissection of a human cadaver. Lecture and laboratory emphasis will be on the dissection of the entire thoracic, abdominal and pelvic cavities. Lecture and dissection focus will also be on visceral structures, nerves and blood supply. In addition, the brain, brainstem and cranial nerves will be considered in anticipation of laboratory dissection.

Coreq: BIO 322

BIO 325 Spring Flora of Virginia CREDITS: 3

This course addresses vernal plants commonly encountered in Virginia. The course focuses on the identification of a variety of plants observed in the field. Emphasis is on spring wildflowers, trees, and some non-vascular plants. Students work individually to produce a collection of digital photographs that illustrate the plants they identify. The course requires students to work in the field in order to obtain photographs. Students learn basic plant anatomy, taxonomy, and the use of dichotomous keys to identify common plants. Students learn which common plants are used as medicinal plants and which plants have application in common herbal remedies.

Prereq: BIO 102 or BIO 212

BIO 326 Summer Flora of Virginia CREDITS: 3

This course addresses plants commonly encountered in Virginia during the estival months of summer. The course focuses on the identification of a variety summer plants as they are encountered in the field. Emphasis is on native flowering plants, trees, and some non-vascular plants. Students work to produce a collection of digital photographs that illustrate the plants they identify. The course requires students to work in the field in order to obtain photographs. In addition to plant identification, students develop an understanding of how and when herbal plants are collected, stored, and prepared for use. Emphasis is on microspores that are known to be important allergens (trees, ragweeds, grasses, molds) and or known to be from regional plant species used by honey bees (Apis melliflora) in the production of honey.

Prereq: BIO 102 or BIO 212

BIO 351 Applied Human Gross Anatomy CREDITS: 3

This course enhances the general knowledge base of that received in a college level general anatomy and physiology course. Lecture focuses on identification of the entire musculoskeletal system of a previously dissected human cadaver with emphasis on osseous anatomical features, muscles (including tendons and ligaments), nerves and blood supply; and on identification of the entire thoracic, abdominal and pelvic cavities of a previously dissected human cadaver, with emphasis on visceral structures, nerves and blood supply. In addition, the brain, brainstem and cranial nerve will be discussed and reviewed in a human cadaver specimen. Approximately twenty (20) percent of this class will be in the laboratory/morgue setting for demonstration.

Prereq: BIO 212

BIO 399L Biology Supervised Study III CREDITS: 1

This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.

Prereq: BIO 299L

BIO 401 Molecular Biology CREDITS: 3

This course is a study of the mechanisms responsible for the transmission and expression of the genetic information of the human genome. The course will consider the scientific basis of eukaryotic and prokaryotic DNA replication, chromosomal structure and function, gene structure and function, and gene regulation. It will also develop topics that describe the role of DNA in translation and the complex role of mutation within a genome.

Prereq: CHM 360 and BIO 304

BIO 404 Cell Biology CREDITS: 3

This course focuses on the current concepts of the molecular organization and processes within animal, plant, and bacterial cells. Emphasis is placed on the structure, function, and organization of cells, cellular energetics, plasma membrane dynamics, intercellular chemical signaling, cell interactions, and cellular mechanisms of membrane transport.

Prereq: CHM 360

BIO 405 Cancer Biology CREDITS: 3
This course provides students with a background in the molecular and cellular events involved in the initiation, progression, and spread of cancer. Specific types of cancer are used to illustrate how normal regulatory systems have been altered in neoplastic cells. The role of genes involved in the development or prevention of cancer is also described as well as new strategies for treatment.
Prereq: BIO 304

BIO 407 Seminar in Biology CREDITS: 1
This course will provide an opportunity for students to review and discuss the research topics being developed in BIO 410. Students will observe seminars by members of the Jefferson College faculty and/or outside speakers. At the conclusion of the course, students will give formal presentations of their research papers from their research in BIO 410.
Prereq: BIO 312

BIO 410 Capstone Research CREDITS: 3
This course uses the fundamental concepts of research developed in BIO 312 Research Methodology. Students select and develop a topic within biomedical sciences. The literature relevant to the selected topic is investigated to produce an extensive, critical review paper.
Prereq: BIO 312

BIO 412 Immunology CREDITS: 3
This course is designed to provide an introduction to the science of immunology by focusing on the tissues, cells and mechanisms involved in the normal immune response. Emphasis will be placed on the mechanisms of B and T cell sensitization, and cellular specialization of immune cells. Detailed consideration of active and passive immunities will focus on the human system. Outside reading will provide supplemental information on various immunological disorders and pathologies.
Prereq: BIO 253

BIO 420 Radiographic Human Anatomy CREDITS: 3
This course focuses on understanding and visualizing normal internal human anatomy with the aid of radiographic images and procedures. Given appropriate anatomical preparation, proper interpretation of radiographic images presupposes a detailed knowledge of anatomy. Radiography is valuable in the detection of early disease stages. This course develops student appreciation for radiographic diagnosis.
Prereq: BIO 322

BIO 430 Neuroanatomy and Neurophysiology CREDITS: 4
This course is a comprehensive study of the human nervous system, including anatomy, physiology and pathophysiology. Particular attention will focus on embryological development and the resulting pathological consequences of abnormal development. Students will focus on cause and effect relationships that are known to exist in neurological disorders. The class will also examine both CNS and PNS lesions and their associated symptoms. The laboratory portion of the course will focus on structures as related to function, assessment of neurological function and evaluation using common neurological instruments. The laboratory will emphasize the neurological exam as a part of the comprehensive physical examination and the recognition of common deficits.
Prereq: BIO 322
Coreq: BIO 430L

BIO 430L Neuroanatomy & Neurophysiology Lab CREDITS: 0
The laboratory portion of the course will focus on structures as related to function, assessment of neurological function and evaluation using common neurological instruments. The laboratory will emphasize the neurological exam as a part of the comprehensive physical examination and the recognition of common deficits.
Coreq: BIO 430

BIO 450 Current Issues in Biology CREDITS: 1
This course is designed to promote discussion of current biology topics, how those topics can be related or applied to healthcare disciplines, and potential ethical considerations. Through a format of guided discussions, current literature searches, and written surveys centered on recent biology findings, discoveries, or controversial issues students enhance their understanding of the scientific method as it relates to biology. The course is designed to increase the student's awareness of the contributions which are being made in biology and applied in other areas, and to further reinforce the student's critical thinking and oral and written communication skills.
Prereq: BIO 312

BIO 499L Biology Supervised Study IV CREDITS: 1
This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a written proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.
Prereq: BIO 399L

BIO 501 Principles of Cell Biology CREDITS: 3
A foundation in the fundamental molecular and cellular processes that underlie biological systems is established in this course. Students are prepared for advanced coursework in molecular basis of cellular structure. Topics include cells and genomes, cell chemistry and biosynthesis, macromolecules, basic genetic mechanisms, cellular and molecular techniques used in contemporary research, the internal organization of the cell, and cell-cell interactions. Quantitative analysis is utilized to emphasize the usefulness of calculations in understanding cellular function. Analyses of relevant, recent publications are included.

BIO 509 Clinical Anatomy I CREDITS: 2
This course is the first in a two-course sequence devoted to the study of clinical anatomy. Emphasis will be given to the clinical significance of anatomical features, and their interrelationships. This course will follow an organ system approach in order to facilitate concordance with core clinical courses (Clinical Medicine and Clinical Pharmacology). Lectures will provide a synopsis for the laboratory component, which will include detailed observation of human cadaver prosections, performance of dissections, and study of various anatomical models.
Coreq: BIO 509L

BIO 509L Clinical Anatomy I Laboratory CREDITS: 0
The laboratory component of this course includes detailed observation of human cadaver prosections, performance of dissections, and study of various anatomical models.
Coreq: BIO 509

BIO 510 Clinical Anatomy II CREDITS: 2
This course is the second in a two-course sequence devoted to the study of clinical anatomy. Emphasis will be given to the clinical significance of anatomical features, and their interrelationships. This course will follow an organ system approach in order to facilitate concordance with core clinical courses (Clinical Medicine and Clinical Pharmacology). Lectures will provide a synopsis for the laboratory component, which will include detailed observation of human cadaver prosections, performance of dissections, and study of various anatomical models.
Coreq: BIO 510L

BIO 510L Clinical Anatomy II Laboratory CREDITS: 0
The laboratory component of this course includes detailed observation of human cadaver prosections, performance of dissections, and study of various anatomical models.
Coreq: BIO 510

BIO 511 Clinical Anatomy III CREDITS: 2
This course is the third in a three-course sequence devoted to the study of clinical anatomy. Emphasis will be given to the clinical significance of anatomical features, and their interrelationships. This course will follow an organ system approach in order to facilitate concordance with core clinical courses (Clinical Medicine and Clinical Pharmacology). Lectures will provide a synopsis for the laboratory component, which will include detailed observation of human cadaver prosections, performance of dissections, and study of various anatomical models.
Coreq: BIO 511L

BIO 511L Clinical Anatomy III Laboratory CREDITS: 0
The laboratory component of this course includes detailed observation of human cadaver prosections, performance of dissections, and study of various anatomical models.
Coreq: BIO 511

BIO 515 Comparative Anatomy CREDITS: 3
This course is a study of the structural/functional relationships of vertebrate organs and systems. Taxonomy, evolutionary relationships and morphological adaptations of fish, amphibians, reptiles, birds and mammals are emphasized. Specific biochemical and cellular mechanisms associated with the morphological development of vertebrates are examined in terms of cellular structure and function of tissue and organ systems among the vertebrate classes. Selected readings from recent scientific literature are analyzed with a focus on key contemporary research questions related to the above topics.
Prereq: BIO 501

BIO 521 Clinical Gross Anatomy for Clin Apps CREDITS: 4
Clinical Gross Anatomy is a cadaver-based course focusing on human gross anatomy with a clinical emphasis. Lecture will provide background and synopsis for use with virtual dissections. The laboratory component will include dissection and observation of cadaver prosections combined with the study of various anatomical models.
Coreq: BIO 521L

BIO 521L Clinical Gross Anatomy Laboratory CREDITS: 0
The laboratory component includes dissection and observation of cadaver prosections combined with the study of various anatomical models.
Coreq: BIO 521

BIO 530 Func Clin Neuroanatomy & Neurophys CREDITS: 4
This course is a comprehensive exploration of the human nervous system (both CNS and PNS) and is an integrated, multi-disciplinary, functional neuroscience course, emphasizing the structural, biochemical and molecular mechanisms of the normal nervous system in relationship to neurological dysfunction and neurodegeneration. This course offers the student the essentials in the neurosciences and provides current research topics upon which a more comprehensive knowledge of clinical neuroanatomy and neurophysiology can be based.
Prereq: BIO 521
Coreq: OT 520

BIO 530L Func Clin Neuranatomy & Neurophys Lab CREDITS: 0
This course is a comprehensive exploration of the human nervous system (both CNS and PNS) and is an integrated, multi-disciplinary, functional neuroscience course, emphasizing the structural, biochemical and molecular mechanisms of the normal nervous system in relationship to neurological dysfunction and neurodegeneration. This course offers the student the essentials in the neurosciences and provides current research topics upon which a more comprehensive knowledge of clinical neuroanatomy and neurophysiology can be based.

BIO 535 Human Gross Anatomy for Biology CREDITS: 4
This course focuses on the structure and function of human anatomy. Emphasis is placed on the structural relationships evident from gross dissection of adult human cadavers. Cadaver prosections are utilized in the laboratory for study and identification. This course is not intended for students wishing to pursue advanced education in anatomy for careers in healthcare.
Prereq: BIO 515
Coreq: BIO 535L

BIO 535L Human Gross Anatomy for Biology Lab CREDITS: 0
This course focuses on the structure and function of human anatomy. Emphasis is placed on the structural relationships evident from gross dissection of adult human cadavers. Cadaver prosections are utilized in the laboratory for study and identification. This course is not intended for students wishing to pursue advanced education in anatomy for careers in healthcare.
Coreq: BIO 535

BIO 545 Microbial Genetics CREDITS: 4
This course explores the mechanisms and regulation of gene expression in Bacteria, Archaea and phage. Genetic analysis of complex processes, including sensory transduction, cell division, and global regulatory circuits are emphasized, along with the genetic basis of microbial pathogenicity in humans. Analysis of the current literature is supplemented with critical discussion of classic papers in the field.
Prereq: BIO 501
Coreq: BIO 545L

BIO 545L Microbial Genetics Lab CREDITS: 0
This course explores the mechanisms and regulation of gene expression in Bacteria, Archaea and phage. Genetic analysis of complex processes, including sensory transduction, cell division, and global regulatory circuits are emphasized, along with the genetic basis of microbial pathogenicity in humans. Analysis of the current literature is supplemented with critical discussion of classic papers in the field.
Coreq: BIO 545

BIO 555 Human Physiology CREDITS: 4
This course explores the basic principles of human physiology and pathophysiology, from the molecular level to the whole organism, with emphasis on: (a) skeletal muscle and exercise physiology,(b) cardio-vascular, (c) renal and urinary, (d) respiratory, (e) gastrointestinal, (f) endocrine, and (g) reproductive systems. Each system includes a discussion of the body's integrated response and adaptation to common environmental challenges and pathophysiological diseases. Quantitative analysis is emphasized to enhance understanding of physiological processes and maintenance of homeostatic balance in the body.
Prereq: BIO 535

BUS 111 Introduction to Computers CREDITS: 1
This course introduces students to microcomputers covering the following topics: basic computer concepts (types of computers, hardware, data communications, and computer software), basics of the Microsoft® operating system, file management, Microsoft® Internet Explorer browsing software, the layout of Microsoft® Office suite, and Microsoft® Word.

BUS 131 Computer Concepts & Applications CREDITS: 3
This course introduces the student to the Windows operating system, File Management skills, the web browser Internet Explorer, the current Microsoft® Office layout and the following Microsoft® applications: word processing (Word), spreadsheets (Excel), and multimedia presentations (PowerPoint). This course provides the opportunity to apply newly learned skills in a final project.

BUS 211 Concepts of Healthcare Economics CREDITS: 3
This course introduces students to basic economic principles that affect the healthcare market. Selected macroeconomic topics such as supply and demand together with selected microeconomic topics that include pricing and market competitions are covered. The course also examines how healthcare policies affect the economy.

BUS 250 Healthcare Management Internship CREDITS: 2
This internship provides off campus, pre-professional, experiential learning relating to principles of healthcare management. Students will complete a minimum of 80 hours of supervised observation/activity within approved healthcare facilities or other health-related organizations.
Prereq: ENG 112

CHM 100 College Chemistry CREDITS: 3
This course is a study of fundamental principles of chemistry with an emphasis on those topics applicable to the health profession. This course will enable the student to prepare for CHM 111. This course does not satisfy requirements for graduation with a Bachelor of Science in Biomedical Sciences, but may count toward total semester credit load. This course is for the student who does not have a strong chemistry foundation.

CHM 100L College Chemistry Laboratory CREDITS: 1
This course is a study of fundamental principles of chemistry with an emphasis on those topics applicable to the health profession. This course will enable the student to prepare for CHM 111. This course does not satisfy requirements for graduation with a Bachelor of Science in Biomedical Sciences, but may count toward total semester credit load. This course is for the student who does not have a strong chemistry foundation.

CHM 110 Chemistry for Health Sciences CREDITS: 4
This one semester course is designed as an introduction to chemistry for students in the health sciences. The course covers the principle concepts of general, organic, and biological chemistry and illustrates how chemistry explains many aspects of life. This course does not satisfy requirements for graduation with a B.S. in Biomedical Sciences.
Coreq: CHM 110L

CHM 110L Chemistry for Health Sciences Lab CREDITS: 0
This one semester course is designed as an introduction to chemistry for students in the health sciences. The course covers the principle concepts of general, organic, and biological chemistry and illustrates how chemistry explains many aspects of life. This course does not satisfy requirements for graduation with a B.S. in Biomedical Sciences.
Coreq: CHM 110

CHM 111 General Chemistry I CREDITS: 4
This course is the first of a two-semester lecture and laboratory study of general chemistry. It examines the fundamental properties of elements, compounds and their quantitative relationships. Stoichiometry and molecular structure are stressed. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory will require students to be involved in experimentation that measure basic chemical reactions and develop fundamental skills important to introductory chemistry.
Coreq: CHM 111L

CHM 111L General Chemistry I Laboratory CREDITS: 0
This course is the first of a two-semester lecture and laboratory study of general chemistry. It examines the fundamental properties of elements, compounds and their quantitative relationships. Stoichiometry and molecular structure are stressed. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory will require students to be involved in experimentation that measure basic chemical reactions and develop fundamental skills important to introductory chemistry.
Coreq: CHM 111

CHM 112 General Chemistry II CREDITS: 4
This course is the second of a two-semester lecture and laboratory study of the principles of general chemistry. It emphasizes the study of modern principles of general chemistry, chemical kinetics, chemical equilibrium and chemical thermodynamics. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory will require students to be involved in exercises that measure basic chemical reactions and develop fundamental skill important to introductory chemistry.
Prereq: CHM 111
Coreq: CHM 112L

CHM 112L General Chemistry II Laboratory CREDITS: 0
The laboratory will require students to be involved in exercises that measure basic chemical reactions and develop fundamental sill important to introductory chemistry.
Coreq: CHM 112

CHM 199L Chemistry Supervised Study I CREDITS: 1
This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a written proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.
Prereq: CHM 111

CHM 215 Introduction to Scientific Literature CREDITS: 2
This course introduces further learning of scientific research through the understanding of key elements in the scientific literature related to chemistry. A survey of the different bodies of reference materials available in chemistry research will be offered. This course will provide the opportunity to gain proficiency in accessing, interpreting and synthesizing messages from different research efforts in the life sciences. The student will ultimately learn how to use the literature in order to evaluate specific chemistry-related scientific publications.
Prereq: IDS 255 or GEN 101

CHM 244 Organic Chemistry I CREDITS: 4
This course is the first of a two-semester lecture and laboratory study of organic chemistry. The lecture component is designed to provide a detailed study of carbon containing compounds, their properties and characteristics. Emphasis is placed on organic compound nomenclature, isomerism and characteristics of organic structure. Compounds of importance to biological systems and biochemistry are stressed. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory requires students to be involved in exercises that involve basic reactions fundamental to organic chemistry.
Prereq: CHM 112
Coreq: CHM 244L

CHM 244L Organic Chemistry I Lab CREDITS: 0
This course is the first of a two-semester lecture and laboratory study of organic chemistry. The lecture component is designed to provide a detailed study of carbon containing compounds, their properties and characteristics. Emphasis is placed on organic compound nomenclature, isomerism and characteristics of organic structure. Compounds of importance to biological systems and biochemistry are stressed. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory requires students to be involved in exercises that involve basic reactions fundamental to organic chemistry.
Coreq: CHM 244

CHM 245 Organic Chemistry II CREDITS: 4
This course is a continuation of a two semester study of organic chemistry. The course focuses on the synthesis and reaction mechanisms of organic compounds. Emphasis is placed on compounds of biological importance. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory requires students to be involved in exercises that involve basic reactions fundamental to organic chemistry.
Prereq: CHM 244
Coreq: CHM 245L

CHM 245L Organic Chemistry II Laboratory CREDITS: 0
This course is a continuation of a two semester study of organic chemistry. The course focuses on the synthesis and reaction mechanisms of organic compounds. Emphasis is placed on compounds of biological importance. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory requires students to be involved in exercises that involve basic reactions fundamental to organic chemistry.
Coreq: CHM 245

CHM 299L Chemistry Supervised Study II CREDITS: 1
This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a written proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.
Prereq: CHM 199L

CHM 300L Chemistry Methods Laboratory CREDITS: 2
This laboratory course is designed to demonstrate the principles studied in analytical chemistry and organic chemistry II.
Prereq: CHM 242 or CHM 351

CHM 310 Pharmacology CREDITS: 3
This course is designed to be an introduction to basic pharmacology. Fundamental aspects of pharmacology will be emphasized. The course will include and develop concepts of pharmacokinetics, pharmacodynamics, drug development, drug safety, drug selection and monitoring for safety issues. The course will address drug classifications and appropriate uses and applications.
Prereq: BIO 253

CHM 351 Analytical Chemistry CREDITS: 3
This course is a study of fundamental techniques and principles of the quantitative methods used in chemistry. Emphasis is placed on gravimetric, titrimetric, colorimetric, and chromatographic procedures of chemical analysis. Emphasis will be placed on quantitative methods of analysis and on the interpretation of quantitative data.
Prereq: CHM 242

CHM 360 Biochemistry I CREDITS: 4
This course presents the biochemical principles and processes that govern living systems. Chemical structures and functional relationships of proteins, enzymes, lipids, and carbohydrates are emphasized. In addition, emphasis is placed on cellular bioenergetics, chemical pathways of metabolism, and the regulation of metabolism. The laboratory component supports the lecture component with laboratory exercises that demonstrate the biochemical processes discussed during lecture.
Prereq: CHM 244
Coreq: CHM 360L

CHM 360L Biochemistry I Laboratory CREDITS: 0
This laboratory component will support the lecture component with laboratory exercises that demonstrate the biochemical processes discussed during lecture.
Coreq: CHM 360

CHM 361 Biochemistry II CREDITS: 4
This course is a continuation of Biochemistry I. The material covered during the lecture component of the class focuses on fundamental biochemical pathways of human metabolism. Emphasis is placed on lipid metabolism, nitrogen metabolism, nucleic acid structure, and the synthesis of proteins. The material covered in the laboratory component of the course supports and complements the lecture material. In the laboratory, students are expected to conduct biochemical procedures, collect, and interpret data.
Prereq: CHM 360
Coreq: CHM 361L

CHM 361L Biochemistry II Laboratory CREDITS: 0
The material covered in this laboratory component of the course will support and compliment the lecture material. The laboratory students will be expected to conduct biochemical procedures, collect and interpret data.
Prereq: CHM 360
Coreq: CHM 361

CHM 399L Chemistry Supervised Study III CREDITS: 1
This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a written proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.
Prereq: CHM 299L

CHM 450 Current Issues in Chemistry CREDITS: 1
This course is designed to promote discussion of current chemistry topics, how those topics can be related or applied to healthcare disciplines, and potential ethical considerations. Through a format of guided discussions, current literature searches, and written surveys centered on recent chemistry findings, discoveries, or controversial issues, students enhance their understanding of the scientific method as it relates to chemistry. The course is designed to increase the student's awareness of the contributions which are being made in chemistry and applied in other areas, and to further reinforce the student's critical thinking and oral and written communication skills.
Prereq: BIO 312

CHM 499L Chemistry Supervised Study IV CREDITS: 1
This course allows students an opportunity to engage in supervised study of a topic of mutual interest to the student and the faculty supervisor. Students must complete a written proposal for the project and receive approval from the supervisor and the Biomedical Sciences Program Director prior to enrolling in the course. This variable-credit course may be taken for one (1) to three (3) credits in a given semester and may be repeated for a maximum of six (6) credits.
Prereq: CHM 399L

EMC 300 Principles of Critical Care Medicine CREDITS: 3
This course introduces the student to the functions of a critical care transport team. Students gain an understanding of the special needs of critical patients during transport, and the purpose of hospital procedures. Additional areas of study include history of critical care and medevac operations, medevac safety, critical care transport orientation, communications, and crew resource management.

EMC 340 Flight Physiology & Assessment CREDITS: 3
This course covers the intricacies of flight medicine, gas laws, barometric pressure, and specific management techniques to alleviate patient stressors during transport. The student also learns how to obtain comprehensive subjective and objective data from patients, their records, referring hospital staff, and/or prehospital personnel.

EMC 340L Flight Physiology & Assessment Lab CREDITS: 0
This course covers the intricacies of flight medicine, gas laws, barometric pressure, and specific management techniques to alleviate patient stressors during transport. The student also learns how to obtain comprehensive subjective and objective data from patients, their records, referring hospital staff, and/or prehospital personnel.

EMC 345 Critical Care Medicine I CREDITS: 3
This course introduces the student to the functions of a critical care transport team. Students gain an understanding of the special needs of critical patients during transport, and the purpose of hospital procedures. Additional areas of study include history of critical care and medevac operations, medevac safety, flight physiology, critical care transport orientation, communications, and crew resource management.

EMC 350 Critical Care Pharmacology CREDITS: 3
This course provides advanced exposure to pharmacokinetics and pharmacological interventions for conditions commonly encountered by the critical care paramedic. Students learn common medication protocols for various medical and trauma diagnoses, as well as develop critical thinking strategies to determine protocol initiation, monitoring, and discontinuance.

EMC 400 Advanced Medical Care CREDITS: 3
This course provides advanced cognitive diagnostic and treatment skills for medical diagnoses. Students learn in-depth pathophysiology and prescribed protocol treatment for common diagnoses seen in critical care transport. Psychomotor skills include advanced assessment, central line placement, arterial line placement, venous cut-downs, aortic balloon pumps, ventilatory management, and other tertiary medical care procedures. (1 credit lecture, 1 credit lab)

EMC 400L Advanced Medical Care Lab CREDITS: 0
This course provides advanced cognitive diagnostic and treatment skills for medical diagnoses. Students learn in-depth pathophysiology and prescribed protocol treatment for common diagnoses seen in critical care transport. Psychomotor skills include advanced assessment, central line placement, arterial line placement, venous cut-downs, aortic balloon pumps, ventilatory management, and other tertiary medical care procedures.

EMC 421C Critical Care Clinical I CREDITS: 2
This clinical course provides the student with approximately 100 hours of supervised patient care opportunities in critical care patient assessment, lab value recognition, advanced medication administration, surgical procedures, and extended care techniques of the critical care patient.

EMC 422C Critical Care Clinical CREDITS: 3
This clinical course provides the student with approximately 100 hours of supervised patient care opportunities in critical care patient assessment, lab value recognition, advanced medication administration, surgical procedures, and extended care techniques of the critical care patient.

EMC 445 Critical Care Medicine II CREDITS: 3
This course provides advanced cognitive diagnostic and treatment skills for medical diagnoses. Students learn in-depth pathophysiology and prescribed protocol treatment for common medical and traumatic diagnoses seen in critical care transport.

EMC 460 Advanced Trauma Care CREDITS: 3
This course provides advanced diagnostic and treatment skills for trauma diagnoses. Students learn in-depth pathophysiology and prescribed protocol treatment for common trauma diagnoses seen in critical care transport. Additional topics include advanced assessment, chest-tube placement, rapid sequence intubation, applied flight physiology, advanced airway management, and other tertiary trauma care procedures.

EMC 460L Advanced Trauma Care Lab CREDITS: 0
This course provides advanced diagnostic and treatment skills for trauma diagnoses. Students learn in-depth pathophysiology and prescribed protocol treatment for common trauma diagnoses seen in critical care transport. Additional topics include advanced assessment, chest-tube placement, rapid sequence intubation, applied flight physiology, advanced airway management, and other tertiary trauma care procedures.

EMC 471C Critical Care Clinical II CREDITS: 2
This clinical course provides the student with approximately 100 hours of supervised patient care opportunities in critical care patient assessment, lab value recognition, advanced medication administration, surgical procedures, and extended care techniques of the critical care patient. This course also includes field internship opportunities with regional critical care transport services.

EMF 131 Fire Behavior and Combustion CREDITS: 3
This course explores the theories and fundamentals of how and why fires start and spread, and how they are controlled.

EMF 205 Building Construction for Fire Protectio CREDITS: 3
This course explores the components of building construction relating to fire, life safety, and firefighter safety. Additional content includes key elements of construction and design of structures to consider when inspecting buildings, preplanning fire operations, and operating during emergencies.

EMF 225 Fire Protection Hydraulics/Water Supply CREDITS: 3
This course provides a foundation of theoretical knowledge of the principles of water use in fire protection. Applications of hydraulic principles and how to analyze and solve water supply problems are also addressed.

EMF 300 Fire Protection Systems CREDITS: 3
This course provides the student with theoretical framework on the design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers.

EMF 305 Fire-Related Human Behavior CREDITS: 3
This course examines how humans respond to fire and how that knowledge has been integrated into life-safety systems' design and development. Students examine current and past research on

human behavior, systems models, life-safety education, and building design to determine the interactions of these areas in emergency situations.

EMF 311 Advanced Fire Suppression CREDITS: 4
This course provides the student with advanced knowledge and skills required for the firefighter to assume the role of team leader under the supervision of an officer or incident commander (IC). The course also includes content on handling hazardous materials incidents at the operations level.

EMF 311L Advanced Fire Suppression Lab CREDITS: 0
This course provides the student with advanced knowledge and skills required for the firefighter to assume the role of team leader under the supervision of an officer or incident commander (IC). The course also includes content on handling hazardous materials incidents at the operations level.

EMF 350 Fire Dynamics CREDITS: 3
This course examines the underlying principles involved in structural fire protection system, building furnishings, and fire protection systems including water-based fire suppression systems, fire alarm and detection, special hazard suppression systems, and smoke management systems.

EMF 375 Fire Prevention Organization & Managemen CREDITS: 3
This course examines factors that shape fire risk and tools for fire prevention including risk reduction education, codes and standards, inspection and plans review, fire investigation, research, master planning, various types of influences, and strategies.

EMF 390I Fire Internship CREDITS: 3
This course provides 150 hours of precepted time with an approved Fire-EMS agency. The course provides students with direct observation and hands-on experience as they are immersed into the work environment of an entry-level firefighter-paramedic. Students focus on engine company operations, ladder company operations, and daily station operations. Students are expected to perform daily station activities and emergency scene operation as directed by the preceptor.

EMF 410 Analytical Approaches Pub Fire Protect CREDITS: 3
This course examines tools and techniques of rational decision making in Fire and Emergency Services agencies including data collection, statistics, probability, decision analysis, utility modeling, resource allocation, and cost-benefit analysis.

EMF 420 Applications of Fire Research CREDITS: 3
This course examines basic principles of research and methodology for analyzing current fire-related research in the following areas: fire dynamics, fire test standards and codes, fire safety, fire modeling, structural fire safety, life safety, firefighter health and safety, automatic detection and suppression, transportation fire hazards, risk analysis and loss control, fire service applied research and new trends in fire-related research.

EMF 460 Managerial Issues of Hazard Materials CREDITS: 3
This course presents issues in management of a department-wide hazardous materials program. It includes issues that are pertinent to officers and managers in public safety departments, encompassing regulations and requirements for hazardous materials preparedness, response, storage, transportation, handling and use, and emergency response to terrorism threat/incident. Subjects covered include local, state, and federal emergency response planning, personnel and training, and operational considerations such as determining strategic goals and tactical objectives.

EMS 100L Introduction to Emergency Services Lab CREDITS: 2
This course is designed to verify competency and provide continuing education for the Emergency Medical Technician according to the 2009 National Standard Curriculum.

EMS 107 Principles of Emergency Services CREDITS: 1
This course provides an overview of the Fire and Emergency Medical Services. Topics include history, roles and responsibilities, well-being, illness and injury prevention, legal aspects, and ethics. Basic organizational structure and function of public and private fire and EMS services will be explored. Basic overviews of the National Response Plan and National Incident Management System are included.

EMS 108 Principles of Emergency Services CREDITS: 3
This course provides an overview of the fire and Emergency Medical Services. Topics include history, roles and responsibilities, well-being, illness and injury prevention, legal aspects and ethics. Basic organizational structure and function of public and private fire and EMS services will be explored. Basic overviews of the National Response Plan and National Incident Management System are included.

EMS 112 Patient Assessment & Airway Management CREDITS: 3
This course provides the student with the foundation to conduct a patient assessment and provide appropriate airway management. The course includes airway management, ventilation, history taking, physical examination, clinical decision making, communication, and documentation. The course format includes lecture and laboratory components.

EMS 112L Patient Assessment & Airway Mgt. Lab CREDITS: 0
This course provides the student with the foundation to conduct a patient assessment and provide appropriate airway management. The course includes airway management, ventilation, history taking, physical examination, clinical decision making, communication, and documentation. The course format includes lecture and laboratory components.

EMS 140 Introduction to Pharmacology CREDITS: 1
This course provides the foundations of pharmacology necessary for the entry-level paramedic to formulate a field impression and implement a pharmacological patient treatment plan. The course includes FDA drug classification, pharmacokinetics, pharmocodynamics, drug laws and drug administration concepts.

EMS 145 Cardiorespiratory Emergencies CREDITS: 3
This course provides the student with the knowledge and skills to assess, form a field impression and develop a treatment plan for patients affected by medical conditions of the following conditions or pathologies: cardiac and/or a respiratory illness. This course is taught in a lecture and lab format.

EMS 145L Cardiorespiratory Emergencies Lab CREDITS: 0
Proposed: This course provides the student with the knowledge and skills to assess, form a field impression and develop a treatment plan for patients affected by medical conditions of the following pathologies cardiac and/or a respiratory illness. This course is in a lecture and laboratory format.

EMS 151C Clinical Practice I CREDITS: 1
This clinical course provides the student with approximately 50 hours of supervised patient care experiences in areas appropriate to course work. Pass/Fail

EMS 159 Pharmacology Applications CREDITS: 2
This course provides the student with the knowledge to formulate a field impression and implement a pharmacological management plan for the patient requiring pre-hospital care.

EMS 160C Clinical Practice II CREDITS: 2
This clinical course provides students with approximately 100 hours of supervised patient care experiences in areas appropriate to course work.

EMS 161I Field Internship I CREDITS: 1
This course provides 50 hours of precepted time with an approved advanced life support (ALS) agency. Students participate as an observer and assist the preceptor as directed. Students shadow the preceptor to begin learning the roles and responsibilities of the paramedic while on duty.

EMS 165 Medical Emergencies I CREDITS: 3
This course provides the student with the knowledge and skills to assess, form a field impression, and develop a treatment plan for the patient affected by a medical condition of the following pathologies: Neurology, Endocrinology, Gastroenterology, Allergies and Anaphylaxis, Toxicology, Renal and Urological. The course is taught in a lecture and laboratory format.

EMS 165L Medical Emergencies I Lab CREDITS: 0
This course provides the student with the knowledge and skills to assess, form a field impression, and develop a treatment plan for the patient affected by a medical condition of the following pathologies: Neurology, Endocrinology, Gastroenterology, Allergies and Anaphylaxis, Toxicology, Renal and Urological. The course is taught in a lecture and laboratory format.

EMS 166 Medical Emergencies CREDITS: 4
This course provides the student with the knowledge and skills to assess, form a field impression, and develop a treatment plan for the patient affected by a medical condition of various pathologies. The course is taught in a lecture and laboratory format.

EMS 166L Medical Emergencies Lab CREDITS: 0
This course provides the student with the knowledge and skills to assess, form a field impression, and develop a treatment plan for the patient affected by a medical condition of various pathologies. The course is taught in a lecture and laboratory format.

EMS 171C Clinical Practice III CREDITS: 1
This clinical course provides students with approximately 50 hours of supervised patient care experiences in areas appropriate to course work.

EMS 210 Prehospital Pharmacology CREDITS: 3
This course provides the foundations of pharmacology necessary for the entry-level paramedic to formulate a field impression and implement a pharmacological patient treatment plan. The course includes FDA drug classification, pharmacokinetics, pharmocodynamics, drug laws, and drug administration concepts.

EMS 215 Medical Emergencies II & Special Care CREDITS: 3
This course provides the knowledge and skills needed to assess, form a Field impression, and develop a treatment plan for the patient affected by medical conditions of the following conditions or pathologies: hematology, infectious and communicable diseases, and behavioral/psychiatric

disorders. Other topics include abuse and assault, chronic care, environmental emergencies, geriatrics, and patients presenting special challenges. The course is in a lecture and laboratory format.

EMS 215L Medical Emergencies II & Spec. Care Lab CREDITS: 0
This course provides the knowledge and skills needed to assess, form a Field impression, and develop a treatment plan for the patient affected by medical conditions of the following conditions or pathologies: hematology, infectious and communicable diseases, and behavioral/psychiatric disorders. Other topics include abuse and assault, chronic care, environmental emergencies, geriatrics, and patients presenting special challenges. The course is in a lecture and laboratory format.

EMS 230 Obstetrics & Pediatrics Emergencies CREDITS: 1
This course provides the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the obstetric, gynecological, or pediatric patient. Topics include sexual assault, vaginal bleeding and infections, normal and abnormal delivery, pre- and post-partum complications, neonatal and pediatric resuscitation, and common pediatric emergencies.

EMS 230L Obstetrics & Pediatrics Emergencies Lab CREDITS: 1
This course provides the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the obstetric, gynecological, or pediatric patient. Topics include sexual assault, vaginal bleeding and infections, normal and abnormal delivery, pre -and post-partum complications, neonatal and pediatric resuscitation, and common pediatric emergencies.

EMS 254 Trauma Emergencies CREDITS: 2
This course provides the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the patient affected by various trauma conditions: blunt and penetrating trauma, hemorrhage and shock, soft tissue trauma, burns, head and neck trauma, spinal, thoracic, abdominal, and musculoskeletal trauma. The course also addresses trauma systems and mechanisms of injury. The course is in a lecture and laboratory format.

EMS 254L Trauma Emergencies Lab CREDITS: 0
This course provides the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the patient affected by various trauma conditions: blunt and penetrating trauma, hemorrhage and shock, soft tissue trauma, burns, head and neck trauma, spinal, thoracic, abdominal, and musculoskeletal trauma. The course also addresses trauma systems and mechanisms of injury. The course is in a lecture and laboratory format.

EMS 271C Clinical Practice IV CREDITS: 1
This clinical course provides students with approximately 50 hours of supervised patient care experiences in areas appropriate to course work.

EMS 271I Field Internship II CREDITS: 1
This course provides 50 hours of precepted time with an approved advanced life support (ALS) agency. Students assume the role of attendant-in-charge (AIC) on non-emergent calls. They will continue to expand their knowledge base of the AIC roles and responsibilities as they observe and assist the paramedic preceptor during emergent care situations.

EMS 272C Clinical Practice III CREDITS: 2
This clinical course provides students with approximately 100 hours of supervised patient care experiences in areas appropriate to course work. (Pass/Fail)

EMS 281C Continuing Clinical & Internship I CREDITS: 2
This clinical and internship course will provide the student with approximately 100 hours of supervised patient care experiences in areas appropriate to course work. The student's schedule will be customized individually based on the needs of the student and didactic course progression. (Pass/Fail)

EMS 301L Emergency Operations Lab CREDITS: 2
This course provides the student with the skills and knowledge necessary to operate an emergency vehicle and participate in a rescue operation scene.

EMS 305L Test Prep Lab CREDITS: 1
This course provides a review of the paramedic cognitive and psychomotor objectives. Summative written, practical, and oral examinations are included to assist in the validation of the student's competency to sit for the National Registry EMT-Paramedic Examination.

EMS 306L National Examination Review Lab I CREDITS: 2
This course provides a review of the paramedic cognitive and psychomotor objectives. Summative written, practical, and oral examinations are included to assist in the validation of the student's competency to sit for the National Registry EMT-Paramedic Examination.

EMS 330 Obstetrics & Pediatrics Emergencies CREDITS: 2
This course provides the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the obstetric, gynecological, or pediatric patient. Topics include sexual assault, vaginal bleeding and infections, normal and abnormal delivery, pre- and post-partum complications, neonatal and pediatric resuscitation, and common pediatric emergencies. This course is offered in a lecture and laboratory format.

EMS 330L Obstetrics & Pediatrics Emergencies Lab CREDITS: 0
This course provides the knowledge and skills needed to assess, form a field impression, and develop a treatment plan for the obstetric, gynecological, or pediatric patient. Topics include sexual assault, vaginal bleeding and infections, normal and abnormal delivery, pre- and post-partum complications, neonatal and pediatric resuscitation, and common pediatric emergencies.

EMS 360 Educational Methods Emergency Services CREDITS: 3
This course explores the various theories and applications of adult education in the practice of training, pre-professional education, and post-professional education of emergency services personnel. Critical analysis of the different methods of teaching and training emergency services professionals is accomplished through discussion, investigation, and application.

EMS 366 Medical Emergencies CREDITS: 4
This course provides the student with the knowledge and skills to assess, form a field impression, and develop a treatment plan for the patient affected by a medical condition of various pathologies. The course is taught in a lecture and laboratory format.
Coreq: EMS 366L

EMS 366L Medical Emergencies Lab CREDITS: 0
This course provides the student with the knowledge and skills to assess, form a field impression, and develop a treatment plan for the patient affected by a medical condition of various pathologies. The course is taught in a lecture and laboratory format.
Coreq: EMS 366

EMS 370 Comm Risk Reduction/Emergency Services CREDITS: 3
This course provides a theoretical framework for understanding ethical, sociological, organizational, political, and legal components of community risk reduction. Methods for the development of a comprehensive community risk reduction plan are explored.

EMS 371C Clinical Practice V CREDITS: 2
This clinical course provides students with approximately 100 hours of supervised patient care experiences in areas appropriate to course work.

EMS 371I Field Internship III CREDITS: 2
This course provides 100 hours of precepted time with an approved advanced life support (ALS) agency. Students assume the role of attendant-in-charge (AIC) on all non-emergent calls and may serve as AIC on emergency calls as deemed appropriate by the preceptor. They continue to expand their knowledge base of the AIC roles and responsibilities as they assist the paramedic preceptor during emergent care situations.

EMS 381C Continuing Clinical/Internship Exp II CREDITS: 2
This clinical and internship course will provide the student with approximately 100 hours of supervised patient care experiences in areas appropriate to course work. The student's schedule will be customized individually based on the needs of the student and didactic course progression. (Pass/Fail)

EMS 381I Field Internship IV CREDITS: 5
This course provides 250 hours of precepted time with an approved advanced life support (ALS) agency and serves as the capstone field internship course. Students will be evaluated as an entry-level paramedic and serve as the attendant-in-charge (AIC) on all calls unless redirected by the preceptor.

EMS 390 Political and Legal Foundations of EMS CREDITS: 3
This course examines the legal, political, and social issues impacting emergency services including employment, personnel, administration, operations, planning, code enforcement, and legislative and political processes.

EMS 400 Advanced Principles of Safety Survival CREDITS: 2
This course examines Line of Duty Death (LODD) and injury data, including the history behind the development of the National Fallen Firefighters Foundation. Students review in depth the 16 Firefighter Life Safety Initiatives that have been adopted to ensure that Everyone Goes Home©.

EMS 405L National Exam Review Laboratory II CREDITS: 1
This course provides a review of the critical care cognitive and psychomotor objectives. Summative written, practical, and oral examinations are included to assist in the validation of the student's competency to sit for the Certified Intensive Care Provider (CICP).

EMS 410 Public Administration for ES CREDITS: 3
This course examines critical public policy and fiscal issues pertaining to emergency services at the local, state, and federal levels.
Coreq: EMS 425

EMS 425 Personnel Management for ES CREDITS: 3
This course examines issues in personnel administration and human resources development within the context of emergency services organizations. Topics include personnel management, organizational development, productivity, recruitment and selection, performance management systems, discipline, and collective bargaining.
Coreq: EMS 410

EMS 430 Senior Practicum Proposal CREDITS: 1
In this seminar course the student selects and writes a proposal for the senior practicum project.

EMS 440 Current Issues in Emerg Med Srvs CREDITS: 3
This course prepares Emergency Services professionals to objectively evaluate and form an opinion on current issues pertaining to the field of emergency services, including having an understanding of emergency services related literature.

EMS 450 Disaster Planning and Control CREDITS: 3
This course examines the principles of community risk assessment, planning, response, mitigation, and recovery for man-made and natural disasters.

EMS 480 Emergency Services Administration CREDITS: 3
This course examines the skills and processes necessary to manage and lead an emergency services department through the challenges of the 21st century. Students develop leadership skills (persuasion, influence, budgeting, change process, problem analysis) needed to develop internal and external cooperation to create a coordinated approach for achieving the department's mission.

EMS 490 Senior Practicum CREDITS: 3
In this seminar course, the student integrates and synthesizes core concepts of emergency services in a management or research project. Students are supervised by an organization preceptor or faculty member.
Prereq: EMS 430

ENG 111 Grammar & Composition I CREDITS: 3
This course is designed to increase student awareness and aptitude in the composing process: invention, drafting, revision and editing. Included in this course are short, frequent writing assignments in various modes, prepared and extemporaneous speech opportunities, preparation of an information research paper and a review of grammar and mechanics.

ENG 112 Grammar & Composition II CREDITS: 3
This course is a continuation of English 111. The student will continue to develop the skills of essay writing and analysis of rhetorical modes and methods and techniques of formal research learned in Grammar and Composition I. The emphasis will be on literature and the skills of critical analysis, effective and correct methods of research writing and documentation, formal critical reading and analysis. The student will carefully examine literary samples of fiction, poetry and drama. The student will understand, identify and explain how rhetorical features reflect an author's or writer's

purpose, audience and subtleties of style to impact readers or audiences. A formal research paper will be written and documented.

ENG 199 Writing for Publications CREDITS: 1
This course provides the student the opportunity to practice writing and layout skills while contributing to student publications.
Prereq: ENG 111

ENG 201 Survey of American Literature CREDITS: 3
This course provides a comprehensive introduction to the principle forms of fiction: short story, poetry, novel and drama, in a study of imaginative literature to include analysis of the genre and critical thinking. The literature will serve as a springboard for writing.
Prereq: ENG 111

ENG 202 Survey of English Literature CREDITS: 3
This course provides a comprehensive introduction to major English works from the Anglo-Saxon period to present. Ideas and characteristics of the British literary tradition are emphasized. Critical reading and writing are included.
Prereq: ENG 111

ENG 220 Public Speaking CREDITS: 3
This course is designed to develop the mutually dependent skills of speaking and listening in order to facilitate both formal and informal communication. Through careful preparation the student will learn self-confidence, organization and delivery of material. In addition, vocabulary and diction skills will be enhanced.

ENG 230 Business & Technical Communications CREDITS: 3
This course is designed to teach clear, purposeful, effective writing and the forms different communications must take. Content includes attention to pre-writing considerations such as audience assessment, intent of the communication and research, as well as the mechanics of writing the draft. Among the forms considered in the course are memorandums, minutes, directions, reports and business letters.
Prereq: ENG 111

ENG 240 Creative Writing CREDITS: 3
Students will examine works of established writers of fiction, poetry and essay while practicing techniques designed to enhance their own creativity. In conjunction, daily journal exercises will serve as a reflective tool. Group discussion and peer editing will facilitate learning. Each individual will design and complete a project in poetry, essay or fiction, or a combination of these genres.
Prereq: ENG 112

ENG 301 Women's Studies in Literature/Culture CREDITS: 3
Using a broadly feminist theoretical framework, this course examines historical and contemporary texts (books, film, speeches, poetry, articles, etc.) that represent women's studies in literature and culture.
Prereq: ENG 112

ENG 315 Healthcare and The Media CREDITS: 3
Students are introduced to the current venues, principles and practices of journalism, and their interface with healthcare professionals.
Prereq: ENG 112

ENG 325 Communication in Professional Practice CREDITS: 3
This course stresses the principles of communication, including oral, non-verbal and written strategies important in the healthcare arena. The course is structured to provide the student with the opportunity to develop skills in these areas. Emphasis is placed on professional writing, oral presentations, and refined literature search methods. All writings and supporting documentation follow the format of the American Psychological Association (APA).
Prereq: ENG 112

ES 998 Advanced Standing CREDITS: 42
Advanced Standing

ETHC 510 Advanced Bioethics CREDITS: 3
Foundational theories, concepts, and principles of bioethics are analyzed and evaluated. Topics include patient/client autonomy, confidentiality, decision-making, quality of life, and the allocation of healthcare/biomedical resources.

ETHC 520 Bioethics in Organizational Leadership CREDITS: 3
Theories, principles, and methods of bioethics are applied to organizational contexts such as health systems, biomedical/biotechnical businesses, and institutional research settings.
Prereq: ETHC 510

ETHC 630 Emerging Trends Bioethics CREDITS: 3
This course introduces students to ethical theory and methods of moral reasoning as tools for analyzing bioethical problems of the twenty first century that arise from emerging medical technology and changes to law and health policy. The bioethical issues will vary to reflect current events and debates. Examples include the impact of the Patient Protection and Affordable Care Act on rural health and human service delivery, the efficacy and safety of telemedicine and telecounseling, and the ethical implications of new advances in genetic medicine. Through these analyses Health and Social Services professionals and other students will develop their ability to both directly provide and allow effective health care ethics consultations in specific cases.

ETHC 640 Cultural Prospectives in Bioethics CREDITS: 3
This course is typically conducted in a hybrid format. It introduces students to a set of interdisciplinary issues concerningintra- and inter-cultural value and perspectival differences, including their impact on healthcare treatment decisions and/or end of life issues. This "set of interdisciplinary issues" will vary. Examples are: the impact of religious and holistic healing practices on the medical profession; the worlds of injured and PTSD-suffering veterans and their care; visual and performing arts in healthcare. Medical and Social Services professionals will develop useful understandings concerning these differences that enhance their ability to both directly provide and administratively allow effective health care ethics consultations in specific cases.

FOR 301 Fund Forensic Science I CREDITS: 3
This course is an introduction to the field of forensic science. It is a combined lecture and laboratory course. Topics include the recognition, identification, individualization, and evaluation of physical evidence such as hairs, fibers, blood, body fluids, glass, soil, paint, fingerprints, firearms, and tool marks commonly collected as part of crime scene investigations. Proper collection techniques, processing, and handling of evidence will be emphasized. The laboratory component will include detailed hands-on examination and testing of the physical evidence discussed during lecture.

Coreq: FOR 301L

FOR 301L Fundamentals of Forensic Sci I Lab CREDITS: 0
This course is an introduction to the field of forensic science. It is a combined lecture and laboratory course. Topics include the recognition, identification, individualization, and evaluation of physical evidence such as hairs, fibers, blood, body fluids, glass, soil, paint, fingerprints, firearms, and tool marks commonly collected as part of crime scene investigations. Proper collection techniques, processing, and handling of evidence will be emphasized. The laboratory component will include detailed hands-on examination and testing of the physical evidence discussed during lecture.
Coreq: FOR 301

FOR 302 Fundamentals of Forensic Science II CREDITS: 3
This course is a continuation of an introduction to the field of forensic science started in FOR 301. Topics to be addressed include the recognition, identification, individualization, and evaluation of physical evidence. The fields of forensic toxicology, chemistry, entomology, anthropology, odontology, arson, blood spatter, documents, and DNA analysis will be introduced. The proper techniques for the collection, processing and handling of evidence at crime scenes and in the forensic laboratory will be emphasized. The laboratory component will include the detailed hands- on examination and testing of the physical evidence discussed during lecture.
Prereq: FOR 301
Coreq: FOR 302L

FOR 302L Fundamentals Forensic Science II Lab CREDITS: 0
This course is a continuation of an introduction to the field of forensic science started in FOR 301. Topics to be addressed include the recognition, identification, individualization, and evaluation of physical evidence. The fields of forensic toxicology, chemistry, entomology, anthropology, odontology, arson, blood spatter, documents, and DNA analysis will be introduced. The proper techniques for the collection, processing and handling of evidence at crime scenes and in the forensic laboratory will be emphasized. The laboratory component will include the detailed hands- on examination and testing of the physical evidence discussed during lecture.
Coreq: FOR 302

FOR 310 Crime Scene Investigation CREDITS: 3
This course provides a hands-on approach to crime scene investigation methodologies and tactics. Emphasis is placed on evidence identification, documentation, collection, and chain of custody from the crime scene through trial.
Prereq: FOR 301

FOR 320 Intro to Courts & Criminal Investigation CREDITS: 3
This course familiarizes the student with the functions, structure, and organization of the agencies that are responsible for the administration of justice. Specifically, the course introduces students to the institutions and processes of law making with emphasis on criminal law and procedures, constitutional guarantees, the judicial system, and the process of enforcing laws.

FOR 410 Special Topics in Forensic Science CREDITS: 3
This course offers students the opportunity to study special topics in forensic science. Topics may include arson investigation, physical and blood spatter patterns, forensic psychology, criminal profiling, and other topics based upon student needs and interests. This course is repeatable.
Prereq: FOR 301

GEN 100 Academic Seminar CREDITS: 1
This course details specific classroom and individual study skills, appropriate for use at the college level, including ethical decision making, critical thinking, engagement with College resources, project management, self-reflection, and writing and communication. Students use individual assessment to design personal objectives. Students examine problem solving, relationship issues, conflict management and resolution, and self-management skills.

GEN 101 Freshman Seminar CREDITS: 3
In this course, students learn proven strategies for creating greater academic, professional, and personal success. In keeping with the developmental focus of the course, students are expected to adopt techniques for improving writing and critical thinking skills, library research methods, and personal self-management.

GEN 102 Stress Management for Students CREDITS: 1
This course is a lecture course designed to identify specific areas of stress and provide the student with functional skills needed to improve his/her stress management. Course will be graded pass/fail.

HA 510 Foundations of Healthcare Administration CREDITS: 3
Students gain an understanding of health services organizations and delivery systems in the United States. Key contextual and environmental factors affecting the practice of healthcare administration within a variety of settings are examined. Current regulatory and legislative issues impacting healthcare delivery are emphasized.
Coreq: HA 530

HA 520 Advanced Health Information Systems CREDITS: 3
The importance of information systems and information technology in improving decision-making in healthcare organizations is addressed. The student develops expertise in data management and analysis used by healthcare organizations in decision support used to improve and better coordinate patient care, allow for better management of medical records, improve cost controls, and enhance supply inventory and management.

HA 530 Organizational Theories & Leadership CREDITS: 3
An overview of structures and behaviors unique to healthcare organizations that impact organizational performance is examined. The theory and practice of leading and managing individuals and groups, through motivation, communications, teamwork, leadership styles, power, organizational change, coalition building, negotiation, and conflict management/resolution are considered.
Coreq: HA 510

HA 540 Human Resources Administration CREDITS: 3
Strategic human resource management within healthcare organizations is examined. Key roles of human resource personnel pertaining to organizational performance are assessed in terms of controlling costs, improving quality, and providing excellent customer service. Theoretical and empirical evidence is evaluated in relation to the administrative and strategic activities within human resource management, including legal and ethical considerations.
Prereq: HA 510

HA 550 Research Methods and Analysis CREDITS: 3
Students gain an understanding of research methods for collecting, analyzing, and interpreting healthcare data for the application of these methods in healthcare organizations. Students distinguish between types of research (quantitative and qualitative) with an emphasis on quantitative analysis in healthcare organizations. The student develops statistical skills applicable to understanding research and decision making processes used in organizational planning and policy development.
Prereq: HA 550

HA 560 Advanced Financial Management Healthcare CREDITS: 3
Theory, concepts, and techniques used in accounting and finance functions of healthcare organizations are examined. Students gain an understanding of the significance of finance in healthcare organizations and learn various techniques to develop, manage, and control finances. Students learn to develop, apply, and interpret various financial tools as part of the managerial decision-making process.
Prereq: HA 510

HA 565 Information Systems Life Cycle CREDITS: 3
The processes of selection and implementation of an information system within a healthcare facility are addressed. Students investigate and evaluate the phases of the life cycle: planning, analysis, design, implementation and evaluation.
Prereq: HA 510 and HA 520

HA 610 Legal Issues Affecting Hlthcare Organiz CREDITS: 3
The foundations of our legal system as they pertain to healthcare organizations and the delivery of services are addressed. Students gain an understanding of key federal and state regulations, including tort and contract law. Legal and ethical issues related to fraud and abuse, risk management, and organizational governance are examined.
Prereq: HA 510

HA 620 Strategic Healthcare Economics & Policy CREDITS: 3
The application of health policy and economic principles to healthcare administrative decision-making is examined. Students gain knowledge of the process for policy development and implementation. Key health policy initiatives related to cost, quality, and access are explored. Students examine how economic principles, such as supply, demand, and the determination of market price impact strategic planning for healthcare organizations.
Prereq: HA 510

HA 630 Seminar In Healthcare Administration CREDITS: 3
Contemporary issues in healthcare management are examined. Current trends in healthcare are analyzed, as well as other topics of special interest.
Prereq: HA 510

HA 640 Operations and Performance Management CREDITS: 3
Factors that affect performance outcomes within healthcare organizations are explored. Students examine operational assessment, patient care and support-care processes, and system perspectives as they relate to delivery of services. Students use case-based analysis to examine problems and improvement opportunities using analytical techniques and decision support systems.

Prereq: HA 550

HA 650 Quality Assessment & Improvement CREDITS: 3
Principles and tools needed to integrate quality assessment into management decision-making processes are examined. Students gain an understanding of quality and performance measurement theory and methodology needed to improve organizational processes and outcomes.
Prereq: HA 550

HA 660 Strategic Leadership & Marketing CREDITS: 3
Marketing and strategic planning in healthcare is the focus of this course. The need for an organized approach that ties strategy to quantifiable objectives and a defined market position is examined. The importance of aligning market issues and needs to the achievement of the strategic plan is addressed.
Prereq: HA 510

HA 665 Healthcare Informatics CREDITS: 3
Databases, systems operations, and information systems are examined as they apply to healthcare informatics.
Prereq: HA 565

HA 667 Decision Supp Systs Healthcare Orgs CREDITS: 3
The application of principles and techniques of decision support systems in healthcare is examined. Emphasis is placed on evidence-based practice and the design, evaluation, and application of clinical and managerial decision support systems.
Prereq: HA 565

HA 670 Practicum CREDITS: 3
The practicum provides an opportunity to apply acquired knowledge and skills and further develop key professional competencies. Experiences are aligned with student academic and professional goals. The practicum consists of a minimum of 120 hours of fieldwork, a project applicable to the host site and scheduled online seminars. The student works under the collaborative guidance of a qualified preceptor within the host organization and a faculty advisor. Students may enroll in this course during the last semester of study leading to graduation.

HCM 301 US Healthcare System CREDITS: 4
This junior level course is designed to provide a practical and conceptual picture of the organization, financing, and delivery of healthcare services. Attention will be focused on evaluating the effects of healthcare on costs, quality, and access. Additionally, policy changes at the state and national levels will be examined to assess their effects on individuals and organizations.
Prereq: ENG 112

HCM 302 Healthcare Management CREDITS: 4
This course develops personal, interpersonal, and organizational communication skills that promote effective management and leadership. Evidence-based management practices are analyzed and a variety of hands-on assessments and exercises are used to help students develop effective interpersonal and organizational communications.
Prereq: HCM 301 or IDS 304

HCM 310 Healthcare Accounting CREDITS: 4
This course will prepare students to read, analyze understand and use financial statements and budgets. Financial management techniques for controlling the cost of services to both the provider and consumer will be examined.
Prereq: ACC 211

HCM 320 Health Information Systems CREDITS: 4
This course explores the role of the healthcare manager in relation to information technology in the healthcare setting, and how computers enhance healthcare practice. The course includes analysis of components of computers and networks; development, enhancement, and selection of healthcare information systems; and management and uses of medical databases and spreadsheets for healthcare managers. Other topics will include examining the process of transforming data into usable information, the fundamentals of proposing and evaluating various health information systems, and the role of the Internet in today's health information environment.
Prereq: HCM 301

HCM 330 Human Resources Management in Healthcare CREDITS: 4
This course explores the principles and practices of effectively managing people. An overview of the key issues that affect healthcare workforce planning and performance management will be examined and analyzed. An emphasis will be placed on practical techniques and tools to effectively implement human resources practices, as well as an examination of beliefs and traditions that impede implementation of sound human resources management.
Prereq: HCM 301

HCM 340 Healthcare Finance CREDITS: 4
In this course students will apply financial concepts concerning the time value of money, financial risk and required return, capital structure, and capital investment decisions. Students will learn to understand and apply concepts related to the cost of capital, debt and equity long term financing, capital budgeting, working capital management, short term financing, and leases. The course will also prepare students to analyze financial performance through the use of ratio analysis and other analytical techniques.
Prereq: HCM 310

HCM 410 Quantitative Methods in Healthcare CREDITS: 4
This course covers the quantitative methods used in business research and decision-making that include research development, design, measurement, and methods of analysis. The objective is to provide the quantitative skills applicable to understanding research and decision-making processes used in planning, data collection, and policy development.
Prereq: IDS 302

HCM 415 Managing a Diverse Healthcare Workforce CREDITS: 2
This course analyzes cultural issues related to the management and leadership of a diverse workforce. Students examine and analyze current research to develop a diversity plan with cultural competencies needed to manage a diverse workforce.

HCM 420 Legal & Ethical Issues in Healthcare CREDITS: 4
This course examines the major legal issues encountered by healthcare institutions and individual healthcare practitioners as they operate and make business decisions in today's fluid healthcare environment. Ethical issues inherent with regulatory and licensure compliance will be examined and analyzed.

Prereq: HCM 301

HCM 450 Healthcare Economics & Policy CREDITS: 4
This course develops conceptual and analytical skills in the application of economic principles to the organization and delivery of healthcare services. Economic theory is applied to the supply and demand of healthcare, health insurance, payment mechanisms, and market structure. Economic measures are used to analyze the cost/benefits of healthcare systems. Students gain a deeper understanding of state, federal, and local governments' roles in healthcare.
Prereq: (BUS 211 or ECN 187) and HCM 301

HCM 464 Concepts of Case Analysis in Healthcare CREDITS: 1
This course integrates theory and practice by using case study analysis to examine issues and solutions in healthcare management. It also serves as a framework for the capstone course (HCM 466) that integrates knowledge and skills from key managerial functions. It provides a logical and systematic problem-solving framework to effectively analyze real life work situations and experiences.
Prereq: HCM 301

HCM 466 Seminar in Healthcare Management CREDITS: 4
This capstone course integrates theory and practice by systematically analyzing complex issues facing healthcare managers. Using case analysis, students apply concepts of accounting, financial management, marketing, business planning, operations, quantitative decision-making, and strategic management specific to the unique environmental, regulatory, legal, ethical, and professional demands of the healthcare industry. Students are required to take this course in the last semester of their plan of study, unless approved by the program director.
Prereq: HCM 464

HCM 485 HC Strategic Management & Marketing CREDITS: 4
As the capstone course for the HCM program, the purpose of this course is to integrate theories, principles and practices of health management and policy with practical situations and problems. Students will work in teams to develop strategic plans.
Prereq: HCM 301

HES 201 Foundation Health and Exercise Science CREDITS: 1
This course facilitates a general understanding of health and exercise science (HES) as a field of study. Students are introduced to the history and origins of the academic discipline, current trends in the field, and future directions for research and practice. Physical activity, structured exercise, and health-related fitness behaviors and programs are discussed applying a social ecological framework across individual, group, organization, community, and policy levels. Students develop their portfolio framework.

HES 220 Foundations of Health Exercise Science CREDITS: 3
Course facilitates a general understanding of health and exercise science as a field of study. Students will be introduced to the history and origins of the academic discipline, current trends in the field, scholarship that informs the profession, and future directions for research and practice. Physical activity, structured exercise, and health-related fitness behaviors and programs will be discussed applying a social ecological framework across individual, group, organization, community, and policy levels. Students will be introduced to the HES electronic portfolio requirement, develop their portfolio framework, and document knowledge, skills, and abilities as appropriate to developing competencies and demonstrating proficiencies in HES content areas.

HES 221 Group Exercise Activities CREDITS: 1
Course content is designed to provide focused instruction and opportunities for sound application including, but not limited to, the following modes of group exercise class activities: high/low impact, step training, studio cycling, water aerobics, body pump, and cardio kickboxing. Each topic will be covered in detail with respect to physiological and biomechanical principles, class organization, choreography, safety, and modifications for involvement of individuals with varying abilities, including current trends and research in the areas of group exercise.

HES 222 Muscle Fitness Activities CREDITS: 1
Course content is designed to provide focused instruction and opportunities for sound application including, but not limited to, the following modes of group exercise class activities: high/low impact, step training, studio cycling, water aerobics, body pump, and cardio kickboxing. Each topic will be covered in detail with respect to physiological and biomechanical principles, class organization, choreography, safety, and modifications for involvement of individuals with varying abilities, including current trends and research in the areas of group exercise.
Prereq: HES 221

HES 271 Injury Prevention & Post-Rehabilitative CREDITS: 3
Course includes approaches involved in preventing common injuries that occur within the active population and concepts of post-rehabilitative exercise. The content of the course will include risk management and safety within an exercise environment and post-rehabilitation principles for common injuries and illnesses. Emphasis will be placed on prevention and recognition of and post-rehabilitative exercise recommendations for the injuries and illnesses most common in non-clinical exercise environments.
Prereq: BIO 212

HES 272 Injury Prevention/Post-Rehabilitative Ex CREDITS: 2
This course includes approaches involved in preventing common injuries that occur within the active population and concepts of post-rehabilitative exercise. Topics include risk management and safety within an exercise environment and post-rehabilitation principles for common injuries and illnesses. Emphasis is placed on prevention and recognition of and post-rehabilitative exercise recommendations for the injuries and illnesses most common in non-clinical exercise environments.

HES 302 Exercise Physiology CREDITS: 4
Course encompasses the acute physiological responses and chronic adaptations of the human body to exercise. Included in the context of this course are the neuromuscular, metabolic, cardiovascular, hormonal, and respiratory systems as they relate to the basic science of human movement and clinical applications. Methodology, procedures, quantification and measurement issues are emphasized in the laboratory component.
Prereq: BIO 212
Coreq: HES 302L

HES 302L Exercise Physiology Lab CREDITS: 0
Course encompasses the acute physiological responses and chronic adaptations of the human body to exercise. Included in the context of this course are the neuromuscular, metabolic, cardiovascular, hormonal, and respiratory systems as they relate to the basic science of human movement and clinical applications. Methodology, procedures, quantification and measurement issues are emphasized in the laboratory component.
Coreq: HES 302

HES 311C Clinical I CREDITS: 2
This clinical experience provides students with an opportunity to gain entry-level experience in commercial exercise science settings. Students complete a minimum of 100 hours of supervised clinical experience in a fitness center environment that includes land- and water-based group and individual exercise protocols for apparently healthy individuals of various ages and abilities. This rotation includes working with individuals of varying ages and abilities on health fitness tasks as well as with site supervisor and staff on various aspects of fitness center operations. (Pass/Fail)
Prereq: BIO 212 and HES 201

HES 312C Clinical II CREDITS: 2
This clinical placement provides the student with an opportunity to apply the knowledge and skills learned in the classroom to a practical experience in a medically-directed, clinical setting. Students complete a minimum of 100 hours of supervised clinical experience that includes structured and rehabilitative exercise for populations of various ages and abilities with known disease and/or injuries. Experiences are documented in the student's portfolio demonstrating entry-level knowledge, skills, and abilities in clinical settings. (Pass/Fail)
Prereq: HES 302

HES 323 Concepts Strength and Conditioning CREDITS: 3
Advanced study of scientific principles and theories related to strength and conditioning for varying populations. Discussions relative to concepts and applications in the exercise sciences, testing and evaluation, program design, implementation, and evaluation, strength and conditioning, facility organization and administration, as well as safety techniques are emphasized.
Prereq: BIO 212

HES 334 Kinesiology CREDITS: 3
This course is designed to provide the student with an understanding of human movement and how developmental and pathological processes affect human movement. Content includes musculoskeletal anatomy, joint structure and function, biomechanics, posture analysis, and gait analysis. The student is prepared to identify the various phases of motion and explain the mechanical significance of each in producing the desired outcome.
Prereq: BIO 212
Coreq: HES 334L

HES 334L Kinesiology Lab CREDITS: 0
This course is designed to provide the student with an understanding of human movement and how developmental and pathological processes affect human movement. Content includes musculoskeletal anatomy, joint structure and function, biomechanics, posture analysis, and gait analysis. The student is prepared to identify the various phases of motion and explain the mechanical significance of each in producing the desired outcome.
Coreq: HES 334

HES 345 Exercise Testing and Prescription CREDITS: 3
This course focuses on the various procedures and protocols for testing and measuring components of fitness associated with optimal health - cardiorespiratory fitness, muscular fitness, flexibility, and body composition. Students will explore the associations among physical activity, health, and hypokinetic diseases; health screening and risk classification; principles of measurement, assessment, test administration and exercise prescription; various clinical and field-based test modes and protocols for determining levels of health fitness. Students will also practice exercise prescription specific to test outcomes.

Prereq: HES 302
Coreq: HES 345L

HES 345L Exercise Testing and Prescription Lab CREDITS: 0
This course focuses on the various procedures and protocols for testing and measuring components of fitness associated with optimal health - cardiorespiratory fitness, muscular fitness, flexibility, and body composition. Students will explore the associations among physical activity, health, and hypokinetic diseases; health screening and risk classification; principles of measurement, assessment, test administration and exercise prescription; various clinical and field-based test modes and protocols for determining levels of health fitness. Students will also practice exercise prescription specific to test outcomes.
Coreq: HES 345

HES 355 Applied Nutrition and Energy Production CREDITS: 3
This course focuses on fundamental concepts of nutrition and dietary behaviors with a special focus on contemporary issues relevant to developing professionals in health and exercise science. A survey of concepts and research in nutrition science, including micro and macro nutrients, food industry, dietary practices for weight management, and supplementation will be applied to nutritional support of active lifestyle and exercise behaviors for health and wellness across the lifespan. Emphasis is placed on metabolism of foodstuffs and the acute and chronic effects that exercise and physical activity have on the energy pathways.
Prereq: BIO 212

HES 365 Psychosocial Aspects of Exercise CREDITS: 3
This course brings content and methods of inquiry from psychology and sociology to issues related to physical activity and exercise behaviors. Students focus on the psychosocial factors related to participants and their motivated behaviors, including adoption, adherence, and compliance, in leisure physical activity and exercise. This course also examines comprehension of physical activity environments, group processes for enhancing participants' health and well-being, applications of theories for enhancing client psychosocial development, and physical activity behaviors for individuals with diverse cultural identities.
Prereq: PSY 101

HES 375 Research Methods Health & Exercise Sci CREDITS: 3
This course provides the students with a directed research experience. Students will work as members of the research team to design, write, propose, implement and present a study. Activities include the Internal Review Board (IRB) process, development of a research question, a literature review strategy and methodology to be employed, data collection, analyses, interpretation and conclusions, and oral and written presentations of findings.
Prereq: (MTH 210 or MTH 301) and HES 345

HES 411C Clinical III CREDITS: 2
This clinical experience provides the opportunity for students to gain experience in health fitness or worksite program site under the direct supervision of a clinical instructor. All aspects of health fitness management, including assessment, programming, and facility administration are practiced. Students complete a minimum of 100 hours of supervised clinical applications, further develop requisite knowledge, skills, and abilities of an entry-level practitioner. (Pass/Fail)
Prereq: BIO 212 and HES 345

HES 412C Clinical IV CREDITS: 2
This capstone clinical placement is designed as a selected, structured clinical experience specific to the last semester of enrollment in the Health and Exercise Science program. Case study methodology, including theory and application, measurement and evaluation, and HES program strategies and outcomes, will be applied in the development of knowledge, skills, and abilities in a clinical placement specific to the post-baccalaureate goals of the learner. This final HES portfolio component, the case study thesis document, will be included in the electronic portfolio and orally defended. Students will complete a minimum of 90 hours of supervised clinical experience, write and present a case study project documenting knowledge, skills, and abilities. Pass/Fail.
Prereq: HES 311C and HES 312C

HES 413C Clinical IV CREDITS: 4
This capstone clinical placement is designed as a selected, structured clinical experience specific to the last semester of enrollment in the Health and Exercise Science (HES) program. Case study methodology, including theory and application, measurement and evaluation, and HES program strategies and outcomes are applied in the development of knowledge, skills, and abilities in a clinical placement specific to the post-baccalaureate goals of the learner. Students complete a minimum of 200 hours of supervised clinical experience, write and present a case study project documenting knowledge, skills, and abilities. (Pass/Fail)
Prereq: HES 411C

HES 422 Organization & Administration in HES CREDITS: 3
This course examines the various issues, policies, and procedures that influence the administration of health and exercise science across various settings, including clinical, corporate, commercial, and community. Topics include facility organization and design; legal liability issues; personnel management; equipment budgeting, purchasing, and maintenance; confidentiality, record keeping, and billing; health insurance and healthcare services; ethical standards and scope of practice; consulting, counseling and coaching, professional organizations and certifications; needs assessment evaluation approaches; promotion, advocacy, and public relations.
Prereq: HES 220

HES 426C Professional Fieldwork in HES CREDITS: 2
This course is designed to provide the student with the opportunity for a variety of applied health and exercise experiences in different settings. This professional field experience offers a challenge to students by testing their potential and interest in selected areas in the field of Health and Exercise Science.
Prereq: HES 311C and HES 312C

HES 427C Scholarly Fieldwork in HES CREDITS: 2
This course is designed to provide the student with the opportunity for an applied research experience in health and exercise science under the direction of HES research faculty. The directed research experience is intended to offer a challenge to senior-level students and test their potential and interest in scholarly activity in the field of Health and Exercise Science.
Prereq: HES 375

HES 445 Program Devel Aging & Spec Populations CREDITS: 3
This course examines, in detail, the changes that transpire during exercise, both acute and chronic, as it influences the elderly and other individuals with special medical considerations. The student will develop exercise programs based on evaluation of the results.
Prereq: HES 345

HES 452 Community Hlt & Physical Activity Promo CREDITS: 3
This course examines the practical applications of principles concerning community health and physical activity promotion. A history of community health organizations and activities will be presented as well as the organization and responsibilities of community health agencies currently operating nationally and locally. Planning and evaluation frameworks, needs assessment approaches, and public health models will be covered. Current issues impacting community health and physical activity will be targeted. Emphasis is on debate of controversial issues.
Prereq: HES 375

HES 485 Professional Seminar in HES CREDITS: 3
Course provides the students with a directed research experience. Class members will work together as members of the research team to design, write, propose, implement and present a study. Activities include the IRB process, development of a research question, a literature review and methodology to be employed, data collection, analyses, interpretation and conclusions, and oral and written presentations of findings.

HIS 101 World History to 1650 CREDITS: 3
The student is introduced to world history from pre-civilization to the early modern era (1650). Topics will include the cradles of civilization, the ancient Greco-Roman world, the medieval and Byzantine eras, the Renaissance, Asian and African cultures, and the birth of modernity.

HIS 102 World History Since 1650 CREDITS: 3
The student is introduced to world history from the early modern era (1650) to the present. Topics will include the Age of Enlightenment, the era of global empires, the world wars, the Cold War, modern Asian and African cultures, and the arrival of the post-modern era.

HLT 111 Personal Health CREDITS: 3
This course introduces the concepts of personal health, including the health-illness continuum, fitness, stress management, nutrition, sexuality, substance abuse and safety with an emphasis on personal responsibility for health. The student will design and implement a balanced nutrition plan and a personal, safe, aerobic fitness plan.

HLT 215 Medical Terminology CREDITS: 3
Medical terms, root words (prefixes, suffixes and combing forms) and commonly used scientific/medical abbreviations are introduced and analyzed in this course. This is accomplished using different body systems and specialized areas of medicine and terms associated with the system. Root words are also analyzed for change of meanings, which occur when the parts are connected to form whole words. Special emphasis is placed on the terms associated with common disease states important to the healthcare provider.

HLT 221 Concepts of Disease CREDITS: 3
This lecture course is designed to consider some of the basic characteristics of disease states in the human. Emphasis is placed on basic pathophysiologic principles and common mechanisms of disease. Representative disease states are addressed for all of the human systems. Consideration is given to diseases common across the lifespan. Causation, symptoms and treatments are emphasized.

HLT 301 Nutrition CREDITS: 3
This course explores major concepts of nutrition and health. Characteristics of adequate and inadequate nutrition, essential nutrients, and nutritional needs across the lifespan are discussed.

Dietary modifications for therapeutic purposes and cultural variations are included. Students who are licensed RNs may challenge this course using the NLN Challenge Exam.

HLT 350 Medical Nutrition Therapy CREDITS: 3
In this course the student explores the connection between nutrition and specific disease states, focusing on the clinical nutrition management of patients with established disease. Current research will be utilized in the study of disease states that effect nutrition status and require the use of specialized nutrition (modified diets and/or nutrition support) as adjunct therapy to other medical, surgical, and pharmacological therapy. Understanding of the affect that each disease or altered health state has on nutrition requires basic knowledge of normal physiology, nutritional requirements, metabolism, digestion, and absorption.
Prereq: HLT 301

HLT 455 Marketing and Public Relations in HC CREDITS: 3
This course presents the principles of marketing and public relations as applied to the healthcare setting. The student executes basic marketing and public relations activities; develops a basic marketing and public relations plan; and simulates the implementation of the components of that plan and evaluates the results. A variety of principles are explored, including ethics and legal considerations, and measurement and assessment methods.
Prereq: ENG 112

HLT 485 Health Sciences Capstone Project I CREDITS: 3
This capstone course is part of the culminating experience for the BSHS major. Health science concepts and applications are integrated through systematic examination of a selected issue or problem in the work setting. Students complete a comprehensive work that includes a focused problem/issue statement, situational analysis, study design, and action plan. This course is the first part of a year-long project.

HLT 486 Health Sciences Capstone Project II CREDITS: 3
This capstone course is the culminating experience for the BSHS major. Health science concepts and applications are integrated through systematic examination of a selected issue or problem in the work setting. Students complete a comprehensive work that includes a focused problem/issue statement, situational analysis, study design, and an action plan. This course is the second part of a year-long project.
Prereq: HLT 485

HPE 104 Therapeutic Massage I CREDITS: 1
This course is an introduction to the area of therapeutic massage. Topics of instruction will include general principles of therapeutic massage and basic techniques used in massage. Consideration of massage for specific purposes and specialized systems of massage will be discussed.

HPE 105 Therapeutic Massage II CREDITS: 1
This course is designed for students who have completed HPE 104 and would like to increase their knowledge of massage theory and skills for specific types of massage. Emphasis will be on the development of skills for Esalen, Sports and Deep Tissue Massage.
Prereq: HPE 104

HPE 106 Therapeutic Massage III CREDITS: 1
This course will provide students information and skills in Massage Therapy techniques for special populations, including but not limited to, pregnancy, medically fragile, hospital-based clients, and specific orthopedic conditions.
Prereq: HPE 105

HPE 122 Mindfulness and Yoga CREDITS: 2
This course introduces students to the concept of Yoga utilizing ancient complimentary techniques toward better health through mindfulness. The primary focus of the course is to develop an awareness of the body, mind and spirit as the student experiences simple, yet profound movement, relaxation, breathing practices, concentration, and meditation. Mindfulness practices include continued and expanded focus on body sensations through the practices of yoga techniques to facilitate the development of concentration and relaxation.

HPE 131 Physical Fitness & Wellness I CREDITS: 1
This course is designed to promote positive lifestyles through the concept of wellness. The wellness topics presented include the benefits of wellness, stress management, fitness, weight management, substance abuse and sexually transmitted diseases. At the conclusion of the class, the student will compare his/her lifestyle habits existing at the beginning and at the end of the course. The student will affirm positive changes and identify areas of improvement for the future. Pass/Fail.

HPE 136 Running for Fitness CREDITS: 1
This course will introduce both the novice and experienced runner to the methods and considerations necessary for continued improvement of running. There will be lecture and analysis of proper running and training techniques. Students will keep an accurate training log as part of the grade and will run and workout outside of class time.

HPE 221 Aerobic Exercise Skills CREDITS: 1
This course is designed to provide focused instruction and opportunities aimed at the development of the cardiovascular system. Individual and group cardiovascular activities will consist of high/low impact, step, slide, water aerobics and cardio kick boxing. The merit of cardiovascular fitness as a lifetime physical fitness objective is highlighted.

HPE 222L Resistance Training Skills CREDITS: 1
This course is designed to provide focused instruction and opportunities aimed at the development of muscular strength and endurance. Individual and group strength training activities including, but not limited to, weight training, Pilates, and core strengthening activities. The merit of muscular strength and endurance as a lifetime physical fitness objective is highlighted.

HSC 221 Concepts of Disease CREDITS: 3
This lecture course is designed to consider some of the basic characteristics of disease states in the human. Emphasis is placed on basic pathophysiologic principles and common mechanisms of disease. Representative disease states are addressed for all of the human systems. Consideration is given to diseases common in adults and children. Causation, symptoms and treatments are emphasized.

HSC 373 Chronic Disease Management CREDITS: 3
This course, focused on adult health, provides an introduction to the history of disease management, identifies key concepts of chronic disease management and explores chronic disease management models.
Prereq: BIO 212 or BIO 240

HSC 450 Global Health Issues CREDITS: 3
This course is intended to provide an interdisciplinary qualitative and quantitative review of global health issues. It will focus on cultural variations in healthcare delivery. It will provide a broad survey of the main facts, issues, perspectives, methods, results and conclusions in the area of global populations and health. It will address some of the unique qualities of ethnomedicine, variations in socioeconomic status and the impact of societal variation on contemporary issues affecting global health. The course will provide an opportunity for students to engage in discussions of comparative regional health issues that impact healthcare delivery. The course will facilitate the student's ability to explain the significant role healthcare plays in the global community.

HSC 455 Marketing and Public Relations Hlthcare CREDITS: 3
This course presents the principles of marketing and public relations as applied to the healthcare setting. The student executes basic marketing and public relations activities; develops a basic marketing and public relations plan; and simulates the implementation of the components of that plan and evaluates the results. A variety of principles are explored, including ethics and legal considerations, and measurement and assessment methods.
Prereq: ENG 325 or ENG 220

HSC 485 Health Sciences Capstone Project I CREDITS: 3
This capstone course is part of the culminating experience for the BSHS major. Health science concepts and applications are integrated through systematic examination of a selected issue or problem in the work setting. Students complete a comprehensive work that includes a focused problem/issue statement, situational analysis, study design, and action plan. This course is the first part of a year-long project.
Prereq: IDS 453

HSC 486 Health Sciences Capstone Project II CREDITS: 3
This capstone course is the culminating experience for the BSHS major. Health science concepts and applications are integrated through systematic examination of a selected issue or problem in the work setting. Students complete a comprehensive work that includes a focused problem/issue statement, situational analysis, study design, and an action plan. This course is the second part of a year-long project.
Prereq: HSC 485

HSC 490 Service Learning Community Health I CREDITS: 3
This course involves students in activities that address community-identified health needs while developing academic and critical thinking skills and commitment to community service. A community partnership is established that focuses on improving the health of citizens. Health science concepts and applications are integrated through systematic examination of an identified need within the community health organization. Students complete a comprehensive body of work that may include a needs assessment, situational analysis, and/or development of an action plan to address the community health problem. This course is the first of a two part series in service learning for Health Science majors.

Prereq: IDS 453

HSC 491 Service Learning in Community Hlth II CREDITS: 3
This course involves students in activities that address community-identified health needs while developing academic and critical thinking skills and commitment to community service. A community partnership is established that focuses on improving the health of citizens. Health science concepts and applications are integrated through systematic examination of an identified need within the community health organization. Students complete a comprehensive body of work that may include a needs assessment, situational analysis, and/or development of an action plan to address the community health problem. This course is the second of a two part series in service learning for Health Science majors.
Prereq: HSC 491

IDS 100 Intro to Healthcare Delivery Systems CREDITS: 1
This course provides an introduction to healthcare delivery systems and settings in the United States. The course offers a historical perspective on the origins of our healthcare system and the forces that change and shape our healthcare delivery systems today. This course includes overview information on healthcare costs, accreditation, and key health professions competencies.

IDS 101 Introduction to Patient Care Skills CREDITS: 1
This course will provide students with the opportunity to learn basic safety practices and infection control. Basic patient care principles and concepts will be discussed with emphasis on meeting selected hygiene and physical needs of the individual. Students will be given the opportunity to practice skills in a lab setting and demonstrate competency by completing the required skills through proficiency check offs. This course is offered in an integrated lecture / skills practice format. (0.5 credit lecture/0.5 credit skills practice)

IDS 102C Basic Patient Care Skills Clinical CREDITS: 2
This course provides the student with the opportunity to develop and demonstrate basic patient care skills learned in previous coursework. This course will focus on practicing basic patient care principles and concepts to meet the physical, psychosocial and spiritual needs of the individual. Skills to be demonstrated include: therapeutic communication, infection control, safety practices and meeting the basic and special needs of the long term care patient.

IDS 107 Introduction to Sign Language CREDITS: 1
This course is designed to teach basic sign language conversational skills to health care professionals. When appropriate, vocabulary are tailored for use in healthcare settings. This course includes a brief overview of deaf culture including the Americans with Disabilities Act (ADA) and the use of the Virginia Relay System to place calls between standard and text telephones.

IDS 111 Basic Cardiac Rhythm Interpretation CREDITS: 1
This course will introduce the multi-skilled patient-focused provider to basic skills associated with cardiac rhythm recognition. The student learns basic cardiac anatomy and electrophysiology and the techniques of lead placements. The main focus is the recognition of basic dysrhythmias.

IDS 112 Basic First Aid/CPR Hlthcare Providers CREDITS: 1
This course will introduce the student to basic skills associated with emergency and cardiac care. Instruction will allow the provider to become competent in providing initial care and assisting other healthcare team members in the care of the patient who has specific needs during an emergency situation. This course is offered through a nationally recognized certifying body and includes topics

such as interventions for bleeding, choking, poisoning, heart-related emergencies, and CPR. At the conclusion, the student will be eligible to test for certification in First Aid and CPR.

IDS 114 Twelve-Lead ECG Interpretation CREDITS: 1
This course introduces the healthcare student to the basic skills of 12-Lead ECG interpretation. This course includes a review of ECG basics, acquisition of the 12-Lead ECG, recognition and localization of acute myocardial infraction. Basic treatment modalities with regard to acute coronary syndrome are addressed.

IDS 140 Integrated Sciences for Healthcare CREDITS: 3
This course is an integration of the major areas of scientific study with application to healthcare. It includes an introduction to the metric system, anatomy and physiology of the heart and lungs, physiologic chemistry, medical physics with emphasis upon the physics of gases and fluids, and basic microbiology.

IDS 201 The Experience of Illness CREDITS: 3
This course introduces and examines biographical accounts of illness and the hospital experience from the individual's perspective to students of nursing, medicine, and allied health professionals. A number of case studies will be reviewed and will emphasize the singular implications of illness and hospitalization and the ways in which individuals express their feelings and perceptions of the care they receive. Students will respond critically to the readings through discussion and personal essays.
Prereq: ENG 111

IDS 203 Applied Spanish - Healthcare Profession CREDITS: 3
This course teaches a basic understanding of the mechanics of spoken and written Spanish, and is constructed specifically for the healthcare setting. Students will learn common terms and phrases used in healthcare settings (e.g., exams, diagnoses, discharge instructions) as well as basic grammar, composition, conversation and culture.

IDS 215 Bioethics CREDITS: 3
This course focuses on the field of bioethics, including the study of theoretical approaches principles, legal aspects, and process of ethical decision making in healthcare issues. Examination of ethical and legal issues in landmark and contemporary cases will build a foundation for clinical application.

IDS 253 Introduction to Research Methods CREDITS: 3
The student is introduced to research methodology for the purpose of understanding others' research in preparation for applying research to health care practice. The course includes information on research designs, sampling, and data collection and analysis. Various examples of research will be critiqued focusing on the student's concentration of study. This course is not available to students who are enrolled in or plan to enroll in IDS 254.
Prereq: MTH 210 or MTH 265 or MTH 301

IDS 254 Introduction to Research Design CREDITS: 3
The student is introduced to scientific research designs used by the health and human sciences. The student develops general research design methods and prepares to advance to actual data collection and analysis. This course is not available to students who are enrolled in or plan to enroll in IDS 253.
Prereq: MTH 210 or MTH 265 or MTH 301

IDS 255 Introduction to Library Research CREDITS: 1
This course is an introduction to methods of library research including use of print, electronic subscription and Web-based resources. Students learn how to effectively search, retrieve, evaluate, and document information for college-level research projects.

IDS 285 Special Topics CREDITS: 3
This course offers students the opportunity to study special topics based upon the students' needs and interests. This course is repeatable.

IDS 302 Stats & Epidemiological Methods Hltcare CREDITS: 4
This course develops knowledge and skills in fundamental statistical concepts and methods. Additionally, basic principles of epidemiology are applied to the management and utilization of healthcare services.
Prereq: MTH 165 or MTH 201

IDS 304 U.S. Healthcare System CREDITS: 4
This junior level course is designed to provide a practical and conceptual picture of the organization, financing, and delivery of healthcare services. Attention will be focused on evaluating the effects of healthcare on costs, quality, and access. Additionally, policy changes at the state and national levels will be examined to assess their effects on individuals and organizations.
Prereq: ENG 112

IDS 305 Complementary/Alternative Approaches CREDITS: 3
This course provides an overview of complementary and alternative therapies and their impact upon health care delivery. Lecture and discussions include the attributes and shortcomings of complementary and alternative approaches and conventional medicine. The history and maturation of complementary and alternative approaches are examined.

IDS 306 Arts in Healing CREDITS: 3
This course focuses on the use of the expressive arts in the practice of nursing and other healthcare disciplines. This experiential course provides a beginning understanding of how a variety of artistic media, techniques, and aesthetics are used to foster healing in clients as well as healthcare providers.

IDS 307 Topics in Interdisciplinary Healthcare CREDITS: 3
In this course, students are introduced to challenges facing the American healthcare system and current recommendations for change. Emphasis is placed on factors that contribute to positive interdisciplinary healthcare interventions. Students work in interdisciplinary groups to develop a client-centered healthcare intervention project.
Prereq: ENG 112 and SOC 213 and IDS 215

IDS 308 Critical Thinking CREDITS: 3
This course focuses on the development and application of systematic critical thinking skills. Students learn problem solving strategies using critical analysis and reasoning methods. This course facilitates independent thought through an examination of attitudes and processes that support sound decision-making.

IDS 320 Transcultural Healthcare CREDITS: 2
This course focuses on transcultural healthcare within a service learning framework. The emphasis is on assessing needs and providing healthcare in a medically underserved community using an

interprofessional approach. Guidelines from the World Health Organization will provide a foundation for discussion. (Pass/Fail)

IDS 340 Appalachian Health and Culture CREDITS: 3
In this course students are introduced to the history of health and healthcare in the mountains of Appalachia and the engaging interface between Appalachian culture and health. The region's current health status is discussed with regard to problematic health conditions, leading causes of morbidity and mortality, and access to comprehensive healthcare.
Prereq: (SOC 213 or IDS 215)

IDS 350 Spanish Language & Culture CREDITS: 3
This course for healthcare professionals has been specifically designed using second language learning models. Lessons build upon each other, encouraging the use and re-use of newly acquired language. Emphasis is on the development of oral and aural skills and the practical use of the language for clinical settings. Cultural perspectives are written into each lesson of the course. The cultural perspectives emphasize awareness and sensitivity of the Hispanic client.

IDS 360 Introduction to Client Education CREDITS: 3
The nursing and allied health student will explore and apply learning theory and client teaching strategies to improve healthcare education in various environments. Students will analyze a variety of factors so they can design and develop client education materials and use available technologies to teach clients how to maintain optimal health, prevent disease and disability. These student-developed materials will assist clients to increase independence and improve their quality of life. Students will explore strategies to evaluate learning outcomes to measure teaching effectiveness.
Prereq: ENG 325

IDS 370 End of Life Issues CREDITS: 3
This course will provide the student with the opportunity to examine issues related to end of life care. The nine modules of the End of Life Nursing Education Consortium (ELNEC) Curriculum will be incorporated into the course. Students will apply theory related to the physical, psychosocial and spiritual needs of patients near the end of life in clinical practice and/or case study situations.

IDS 372 Spirituality in Healthcare CREDITS: 3
In this course, the student will examine the role of spirituality in healthcare practice. Healthcare interventions from birth through end-of-life care will be analyzed to determine what impact the spirituality of the patient and/or healthcare provider has on clinical outcomes and the healing process itself. Added focus will be given to specific populations including children, dying persons, and those who are bereaved.

IDS 450 Global Health Issues CREDITS: 3
This course is intended to provide an interdisciplinary qualitative and quantitative review of global health issues. It will focus on cultural variations in healthcare delivery. It will provide a broad survey of the main facts, issues, perspectives, methods, results and conclusions in the area of global populations and health. It will address some of the unique qualities of ethnomedicine, variations in socioeconomic status and the impact of societal variation on contemporary issues affecting global health. The course will provide an opportunity for students to engage in discussions of comparative regional health issues that impact healthcare delivery. The course will facilitate the student's ability to explain the significant role of healthcare plays in the global community.

IDS 453 Research Methods CREDITS: 3
This course is designed to study research methodology pertaining to topics within the health professions. The course will deliver information on research designs, sampling, and data collection and analysis. Various examples of research will be critiqued focusing on the student's concentration of study.

IDS 501 Leadership in Healthcare Systems CREDITS: 3
This course provides an overview of current theory, principles and skills of leadership in healthcare organizations. The course focuses on the development of competency in the application of leadership theory in a variety of healthcare settings. Students will examine their own leadership styles, discuss the impact of these, and apply leadership skills in team-based, problem-based healthcare situations. Students will explore the implications of current health policies and political and financial issues on the delivery of healthcare.

IDS 502 Research Methodologies CREDITS: 3
Students will critically review and analyze generic research methods used in healthcare. Emphasis is placed upon the student being able to read and interpret the literature presented. Course content will introduce methods of scholarly research that will be used in their research project.

IDS 503 Advanced Statistics for Healthcare CREDITS: 3
This course examines statistical methods of analyses of variance and multiple linear regression as used in healthcare research. Content includes descriptive statistics, ANOVA, repeated measures analysis of variances, correlation analysis, and multiple linear regression. Learning statistical theories is coupled with practice of data analysis using statistical software.

IPE 200 Fundamentals of Teamwork CREDITS: 1
This course introduces the basic elements of what a team is and how an effective team functions. Students engage in various exercises to experience the successes and failures associated with teamwork.

IPE 300 Interprofess Healthcare Discovery Collab CREDITS: 1
This course provides the framework to understand, value, and respect the contributions of various healthcare professionals in a team-based patient- centered environment.
Prereq: IPE 200

IPE 400 Interprofessional Healthcare Experiences CREDITS: 1
This course provides simulated experiences in the application and synthesis of effective interprofessional healthcare team dynamics focused on patient-centered outcomes.
Prereq: IPE 300

IPE 401 Foundations Interprofessional Leaders I CREDITS: 2
This course introduces concepts and skills necessary for interprofessional leadership. Students are introduced to interprofessional communication and collaboration for improving patient health outcomes. Through interprofessional group experiences, the student develops the foundation for organizational and systems leadership for quality care and patient safety. (lecture 1 credit, lab 1 credit) Pass/fail.

IPE 402 Foundations Interprofessional Leaders II CREDITS: 2
This course builds on the concepts and skills presented in Interprofessional Leadership I. Students experience complex interprofessional communication and collaboration through a community-based service-learning project. Through interprofessional group experiences, the student is prepared for organizational and systems leadership for quality care and patient safety. (lecture 1 credit, lab 1 credit) Pass/fail.

IPE 501 Found of Interprofess Leadership I CREDITS: 2
This course introduces concepts and skills necessary for interprofessional leadership. Students engage in interprofessional communication and collaboration for improving patient-centered health outcomes. This course examines the interprofessional, professional, legal and historical issues commonly faced in practice. Pass/fail.

IPE 502 Found of Interprofess Leadership II CREDITS: 2
This course builds on the concepts and skills presented in Interprofessional Leadership I. Students experience complex interprofessional communication and collaboration through a community-based service-learning project. Through interprofessional group experiences, the student is prepared to appreciate healthcare organizational and systems leadership for quality care and patient safety. (Pass/Fail)

IPE 507 Ethical and Legal Issues in Practice CREDITS: 3
This course focuses on the ethical and legal principles that impact healthcare systems. Special emphasis is placed on ethical and legal decision-making from a personal and organizational perspective. (Pass/fail)

IPE 509 Research & Evidence-Based Practice CREDITS: 3
In this course, students focus on utilization of new knowledge and evidence to provide quality healthcare, initiate change and improve healthcare practice. This includes problem identification, evaluation of research and awareness of patient management and practice outcomes. Students develop skill in accessing, assessing and applying current research to healthcare practice.

MLS 410 Intro to Medical Laboratory Science CREDITS: 6
Students receive didactic instruction to prepare them for laboratory and clinical practice in Medical Laboratory Science. This includes instruction in Laboratory Operations and Clinical Laboratory Management, as well as regulatory agencies and requirements, stages of clinical testing, preventable errors and professionalism.

MLS 420 Intermediate Medical Laboratory Science CREDITS: 15
Students receive classroom and clinical training to prepare them for employment in the Medical Laboratory Science field. Coursework focuses on theory, application, and interpretation of normal and abnormal body processes to determine diagnoses, applicable testing methodologies, and treatment options.
Prereq: MLS 410

MLS 430 Advanced Medical Laboratory Science CREDITS: 15
Students complete additional classroom and clinical training to prepare for employment in the Medical Laboratory Science (MLS) field. Preparation for success on the national certification examination includes practice examinations and review sessions. Classroom and clinical training reinforces critical thinking skills to include evaluation of relevant case studies and preparation for independent work as medical laboratory scientists.
Prereq: MLS 420

MTH 100 College Mathematics CREDITS: 3
This course is for the student who did not have high school algebra. The course will include ratios, metrics, fractions, percentages, decimals, conversions and solving for one and two unknowns. This course does not satisfy requirements for graduation but does count toward total semester credit load.

MTH 130 Applied Math Healthcare Professionals CREDITS: 3
The course develops basic math skills and expertise in math problems that use fractions, decimals, ratios, proportions, and percentages as applied to common healthcare-related calculations. It examines systems of measurement and conversions within and between those systems. It also develops the concepts of dilution, flow rate, and solving for x with basic algebraic formulas.

MTH 165 College Algebra CREDITS: 3
This course presents various topics from algebra within the complex number system. These include linear and quadratic equations and inequalities, functions and graphs, polynomials, logarithms and systems of equations and inequalities. Some topics from analytic geometry and discrete algebra also will be explored.

MTH 170 Precalculus with Trigonometry CREDITS: 3
This course presents basic concepts and methods necessary for the study of calculus. Topics include functions and their properties, systems of equations, matrices, and exponential, logarithmic, trigonometric, and inverse functions.

MTH 201 Calculus CREDITS: 3
This course presents differential calculus of one variable including limits, differentiation, and integration with numerous applications. The course is primarily designed for students in biology, behavioral sciences, and pre-professional studies.
Prereq: MTH 165 or MTH 170

MTH 202 Calculus II CREDITS: 3
This course continues the study of one-variable calculus, including the analyses of definite and indefinite integrals with applications to algebraic and transcendental functions, areas, and volumes of solids. The course is primarily designed for students in biology and pre-professional studies
Prereq: MTH 201

MTH 210 Introduction to Statistics CREDITS: 3
This course will focus on the basic statistical concepts and applications in health sciences. Descriptive and inferential statistics will be covered.
Prereq: (MTH 165 or MTH 130 or MTH 201 or MTH 170)

MTH 265 Introduction Health Science Statistics CREDITS: 3
This course focuses on basic statistical concepts and applications in health sciences. It provides students with conceptual as well as practical understanding of statistical analyses for health science research. Both descriptive and inferential analyses are presented, as well as parametric and nonparametric statistics, including correlation, regression, and group-comparison statistics through two-way factorial analysis of variance.
Prereq: (MTH 130 or MTH 165 or MTH 170 or MTH 201)

MTH 265L Health Science Statistics Laboratory CREDITS: 1
This laboratory course focuses on the use of the data-analysis package known as SPSS® to conduct statistical analyses for biomedical research. Both descriptive and inferential analyses are conducted, as well as parametric and nonparametric analyses, including correlation, regression, and group-comparison statistics through two-way factorial analysis of variance.
Prereq: (MTH 265 or MTH 210 or MTH 301)

MTH 301 Statistical Methods for Healthcare CREDITS: 3
This course provides students with a conceptual understanding of statistical methods in relation to the purpose, design and methods of healthcare research. Both descriptive and inferential applications are presented and students are introduced to the use of computers for data storage, retrieval and statistical analysis.

MUS 101 Music Appreciation CREDITS: 3
Music appreciation is a course designed to introduce musical elements, forms and stylistic periods, and to stimulate curiosity and enthusiasm and heighten the appreciation of music.

NSG 201 Dosage Calculations CREDITS: 1
This course reviews basic mathematics used by nurses for dosage calculation of medications and solutions. It focuses on calculating medication dosages (oral and parenteral), intravenous fluid flow rates and infusion time, and preparation of solutions. Students learn how to interpret medication orders and drug labels.
Prereq: (MTH 165 or MTH 170 or MTH 201)

NSG 203 Foundations for Profess Nursing Practice CREDITS: 3
This course introduces the curriculum framework and foundational concepts for practice as a generalist in the nursing profession. The student explores the roles of provider, designer, manager, and coordinator of care. The nursing process is introduced as the model for critical thinking in evidence-based practice. The student considers the impact of nursing history, nursing theory, professional values, and human diversity on practice. The student develops therapeutic communication, interviewing, and documentation skills.
Prereq: ENG 325 and BIO 253

NSG 255 Health Assessment CREDITS: 3
This course introduces the new student to health assessment, which is the first step in understanding the nursing process. It focuses on the concepts, knowledge, and skills necessary to complete a health assessment for patients in all age groups. The major elements, sequence, and methodology of health assessment are emphasized. (2 lecture, 1 laboratory)
Prereq: ENG 325 and BIO 253
Coreq: NSG 255L

NSG 255L Health Assessment Laboratory CREDITS: 0
This course introduces the new student to health assessment, which is the first step in understanding the nursing process. It focuses on the concepts, knowledge, and skills necessary to complete a health assessment for patients in all age groups. The major elements, sequence, and methodology of health assessment are emphasized. (2 lecture, 1 laboratory)
Coreq: NSG 255

NSG 290 Nursing Independent Study CREDITS: 1
Independent study courses are designed to permit the students, with faculty supervision, to study topics or areas of particular interest. The subjects are usually continuations in greater depth of a topic covered in a regular course and usually involve extensive readings, clinical practice under supervision of a preceptor and may include written papers. Permission of the Program Director is required, with supervising faculty assigned by the Program Director.

NSG 300 Pharmacology CREDITS: 3
This course provides a foundation in basic pharmacological principles. It focuses on how the knowledge base and nursing process are applied to safely administer and monitor the effects of drugs in patient care across the lifespan.

NSG 302 Professional Nursing Skills I CREDITS: 2
This course develops the psychomotor, cognitive, and affective nursing skills necessary to practice safely and competently across the lifespan. This course provides students with the theoretical basis for professional nursing skills and is offered in an integrated lecture / skills practice format.
(1 credit lecture, 1 credit skills practice)
Prereq: NSG 255

NSG 306 Arts in Healing CREDITS: 3
This course focuses on the use of the expressive arts in the practice of nursing and other healthcare disciplines. This experiential course provides a beginning understanding of how a variety of artistic media, techniques, and aesthetics are used to foster healing in clients as well as healthcare providers.

NSG 308 Professional Nursing Skills II CREDITS: 2
This course develops the advanced psychomotor, cognitive, and affective nursing skills necessary to practice safely and competently across the lifespan in diverse healthcare settings. This course provides students with the theoretical basis for professional nursing skills and is offered in an integrated lecture / skills practice format. (1 credit lecture, 1 credit skills practice)
Prereq: (NSG 324 and NSG 326)

NSG 309 Professional Nursing Practice I CREDITS: 1
This course provides students with the opportunity to assess progress toward achievement of program outcomes and readiness for entry level nursing practice. Students demonstrate progress toward achievement of program outcomes via standardized testing. Students develop strategies related to preparation for professional licensure examination and readiness for entry-level nursing practice.
Prereq: (NSG 325 or NSG 327)

NSG 311 Nursing Process Aging and Mental Hlth CREDITS: 4
This course explores the generalist nursing roles of provider, designer, manager, and coordinator of care as they relate to the care of older adult patients and mental health clients across their lifespan. Emphasis is placed on nursing strategies that promote physical and mental health, and safe, quality patient-centered care.
Prereq: (NSG 203 and NSG 255)

NSG 312 RN Nursing Concepts Roles & Issues CREDITS: 3
This course introduces the foundational concepts for practice as a generalist in the profession of nursing. The roles of provider, designer, manager, and coordinator of care are explored. The course examines the impact of nursing history, nursing theory, evidence-based practice, and professional ethics on the practice of professional nursing and the delivery of patient-centered care.
Prereq: ENG 325

NSG 313 Nsg Process Mental Health/Gerontology CREDITS: 5
This course explores the generalist nursing roles of provider, designer, manager, and coordinator of care as they relate to the care of mental health clients across their lifespan and older adult clients. Emphasis is placed on nursing strategies that promote physical and mental health, and safe, quality patient-centered care.
Prereq: (NSG 203 and NSG 255)
Coreq: NSG 328C

NSG 314 Nursing Process Psychiatric/Mental Hlth CREDITS: 3
This course explores the generalist nursing roles of provider, designer, manager, and coordinator of care as they relate to the promotion of mental health along the mental health mental illness continuum across the lifespan. Emphasis is placed on nursing strategies that promote physical and mental health and safe, quality patient-centered care.
Prereq: NSG 203 and NSG 255
Coreq: NSG 328C

NSG 316 Nursing Process in Gerontology CREDITS: 2
This course explores the generalist nursing roles of provider, designer, manager, and coordinator of care as they relate to the care of older adult clients. Emphasis is placed on nursing strategies that promote wellness in older adults, patient engagement, and safe, quality patient-centered care along the aging continuum.
Prereq: NSG 203 and NSG 255
Coreq: NSG 328C

NSG 319 RN Comprehen Approach Health/Illness I CREDITS: 3
This course presents a comprehensive approach to health and illness through the lifespan. Emphasis is placed on health assessment, health promotion, health literacy, and teaching/learning principles. The course examines the etiology, genetics and genomics, pathophysiology, and clinical manifestations of common disease processes. Students demonstrate physical assessment techniques and integrate knowledge of pharmaceutical and non-pharmaceutical treatment modalities into evidence-based practice.

NSG 320 Informatics & Technology in Healthcare CREDITS: 3
This course investigates the use of computer applications in the healthcare environment, particularly in the area of clinical practice, education, and research. The use of computer technology in communication and networking is also explored.

NSG 324 Nursing Process Applications I CREDITS: 3
This course develops the knowledge base needed to provide patient-centered care. Concepts of illness and disease management are integrated. The students apply the nursing process to clients with selected alterations in adaptive and regulatory mechanisms.
Prereq: NSG 255

NSG 325 Nursing Process Applications II CREDITS: 3
This course continues to develop the knowledge base needed to provide patient-centered care. Concepts of illness and disease management are integrated. Students apply the nursing process to clients with selected alterations in adaptive and regulatory mechanisms.
Prereq: NSG 324

NSG 326 Nursing Process Applications TBSN I CREDITS: 4
This course develops the knowledge base needed to provide patient-centered care. Concepts of illness, disease management and pharmacology are integrated. The students apply the nursing process to clients with selected alterations in adaptive and regulatory mechanisms.
Prereq: (NSG 203 and NSG 255)

NSG 327 Nursing Process Applications TBSN II CREDITS: 4
This course continues to develop the knowledge base needed to provide patient-centered care. Concepts of illness and disease management, and pharmacology are integrated. Students apply the nursing process to clients with selected alterations in adaptive and regulatory mechanisms.
Prereq: NSG 326

NSG 328C Clinical Practicum TBSN I CREDITS: 3
During this clinical practicum, students participate in supervised clinical experiences and selected observational clinical experiences that complement the accompanying nursing theory courses. This is the first in a series of four clinical practicum courses whereby students progress toward achievement of the program outcomes. In this course, students are expected to reach the novice level of clinical performance.
Prereq: NSG 255 and (NSG 324 or NSG 326)
Coreq: NSG 313 and NSG 314 and NSG 316

NSG 331 Nursing Process Families with Children CREDITS: 4
This course focuses on maternal-newborn care and on the care of children from infancy through adolescence. Conception, pregnancy, fetal development, childbirth, and postpartum care are addressed. Emphasis is placed on nursing care of families, child growth and development from conception through adolescence, and common recurring pediatric illnesses. Nursing strategies that promote health, reduce risk, and prevent disease will be included.
Prereq: (NSG 324 or NSG 326 or NSG 354) and (NSG 338C or NSG 369C)

NSG 332 High Acuity Nursing I CREDITS: 3
This course provides students with the knowledge base needed to care for high acuity patients with complex nursing needs. In this course the students apply pathophysiological and pharmacological concepts to high acuity patients to enhance clinical decision-making. Incorporated into this course are the current American Association of Critical Care Nurses (AACN) Standards for Acute and Critical Care Nursing.
Prereq: (NSG 325 or NSG 312)

NSG 338C Clinical Practicum TBSN II CREDITS: 3
During this clinical practicum, students participate in supervised clinical experiences and selected observational clinical experiences that complement the accompanying nursing theory courses. This is the second in a series of four clinical practicum courses whereby students progress toward achievement of the program outcomes. In this course, students are expected to reach the assisted level of clinical performance.
Prereq: NSG 302 and (NSG 324 or NSG 326) and (NSG 325 or NSG 327)

NSG 350 Professional Nursing Skills for ABSN CREDITS: 3
This course develops psychomotor, cognitive, and affective nursing skills and the theoretical basis necessary to practice safely and competently across the lifespan. This course is presented in an integrated lecture/skills practice format. (2 credits lecture, 1 credit skills practice)
Prereq: NSG 203 and NSG 255

NSG 354 Nursing Process Applications for ABSN I CREDITS: 3
This course develops knowledge, skills, and attitudes needed to provide quality patient-centered care. Concepts of health, illness, and disease management are integrated. In the role of provider of care, the student applies the nursing process to clients with selected alterations in adaptive and regulatory mechanisms.
Prereq: NSG 350
Coreq: NSG 358C

NSG 355 Disaster Nursing CREDITS: 3
This course provides information on types of disasters and how the state, local, and national responses work together with nursing both in the field and within the hospital. The course provides an opportunity for students to engage in discussions regarding social, cultural, and legal and ethical issues with regard to the effects of a disaster. The course facilitates the student's ability to explain the significant role nurses play in responding to a disaster.

NSG 358C Clinical Practice for ABSN I CREDITS: 4
During this practicum, students participate in clinical experiences that complement the accompanying nursing theory courses. Students reach the novice level of clinical performance.
Prereq: NSG 300
Coreq: NSG 354

NSG 360 Principles of Client Education CREDITS: 3
The nursing and allied health student will explore and apply learning theory and client teaching strategies to improve healthcare education in various environments. Students will analyze a variety of factors so they can design and develop client education materials and use available technologies to teach clients how to maintain optimal health, prevent disease and disability. These student-developed materials will assist clients to increase independence and improve their quality of life. Students will explore strategies to evaluate learning outcomes to measure teaching effectiveness.
Prereq: ENG 325

NSG 361 Nursing Process Application ABSN II CREDITS: 3
This course develops the knowledge, skills, and attitudes needed to provide acute, ambulatory, and home care for selected health problems. Students apply the nursing process in increasingly complex situations, integrating concepts of illness, disease management, and health promotion. Emphasis is on the roles of designer/manager/coordinator of care and interprofessional collaborator.
Prereq: (NSG 354 and NSG 358C)
Coreq: NSG 369C

NSG 369C Clinical Practicum for ABSN II CREDITS: 4
During this practicum, students participate in clinical experiences that complement the accompanying nursing theory courses. Students reach the supervised level of clinical performance.
Prereq: (NSG 354 and NSG 358C)

Coreq: NSG 361

NSG 370 End of Life Issues CREDITS: 3
This course will provide the student with the opportunity to examine issues related to end of life care. The nine modules of the End of Life Nursing Education Consortium (ELNEC) Curriculum will be incorporated into the course. Students will apply theory related to the physical, psychosocial and spiritual needs of patients near the end of life in clinical practice and/or case study situations.

NSG 372 Spirituality in Healthcare Practice CREDITS: 3
In this course students examine the roles of spirituality in healthcare practice. Healthcare interventions from birth through end-of-life care will be analyzed to determine what impact the spirituality of the patient and/or healthcare provider has on clinical outcomes and the healing process itself. Added focus will be given to specific populations including children, dying persons, and those who are bereaved.

NSG 373 Chronic Disease Management CREDITS: 3
This course, focused on adult health, provides an introduction to the history of disease management identifies key concepts of chronic disease management and explores chronic disease management models.
Prereq: ENG 111

NSG 409 Professional Nursing Practice II CREDITS: 1
In this capstone course, students validate achievement of program outcomes and readiness for entry-level generalist nursing practice. The students demonstrate clinical reasoning within the context of patient-centered care. Students integrate current evidence-based concepts from nursing science, humanities, social and natural sciences, and apply them in a case-study based capstone paper. Students demonstrate knowledge for entry-level practice via standardized testing.
Prereq: (NSG 424 or NSG 426)

NSG 410 Research Applications in Healthcare CREDITS: 3
This course introduces the student to the role of research in the delivery of healthcare. The scientific method and research process are examined. The students evaluate and discuss research designs, sampling designs, data collection methods, and data analysis.
Prereq: MTH 301 or MTH 210

NSG 412 Professional Nursing Capstone for ABSN CREDITS: 2
In this capstone course, students validate achievement of program outcomes and readiness for entry-level generalist nursing practice. The students demonstrate clinical reasoning within the context of patient-centered care. Students integrate current evidence-based concepts from nursing science, humanities, social and natural sciences, and apply them in a case-study based capstone paper. Students develop strategies related to preparation for professional licensure examination and demonstrate readiness via standardized remediation and testing.
Prereq: NSG 361
Coreq: NSG 461

NSG 418 RN Comprehensive Appro Health/Illness II CREDITS: 3
This course presents a comprehensive approach to health and illness in increasingly complex health situations through the lifespan. Emphasis is placed on health assessment, health promotion, health literacy, and teaching/learning principles. The course examines the etiology, genetics and genomics, pathophysiology, and clinical manifestations of complex disease processes. Students

demonstrate physical assessment techniques and integrate knowledge of pharmaceutical and non-pharmaceutical treatment modalities into evidence-based practice.
Prereq: NSG 319

NSG 420 RN Community Health Nursing CREDITS: 3
This course provides the foundation for community health nursing practice. Topics include health promotion, environmental health, epidemiology, family as client, community as client, vulnerable populations, contemporary problems in community health nursing, and settings for community health nursing practice. The concept of population health is emphasized.
Prereq: NSG 319 and HLT 301
Coreq: NSG 422C

NSG 421 Promoting Hlth in Community CREDITS: 4
This course provides a foundation for health education, health promotion, and nursing practice in community health. Topics include health promotion, environmental health, epidemiology, care of family as client, care of community as client, care of vulnerable populations, contemporary problems in community health nursing, genetic and genomic factors affecting health of individuals and families, and settings for community health nursing practice. Students apply concepts of cultural competence, health promotion, and health education to population health.
Prereq: (NSG 325 or NSG 327) or NSG 361
Coreq: NSG 424

NSG 422C RN Community Health Nursing Clinical CREDITS: 2
This course integrates the concepts and theory of population health in the clinical setting. Clinical experiences take place in selected community health agencies. (pass/fail)
Prereq: (HLT 301 and NSG 319)
Coreq: NSG 420

NSG 424 Nursing Process Applications III CREDITS: 3
This course develops the knowledge base needed to provide patient-centered care to include acute intervention, ambulatory, and home care for selected health problems. Students apply the nursing process in increasingly complex situations. Concepts of illness and disease management are integrated.
Prereq: NSG 325
Coreq: NSG 421 and NSG 428C

NSG 425 Nursing Process Applications IV CREDITS: 3
This course develops the knowledge base needed to provide patient-centered care in high acuity settings. Students apply the nursing process to clients in complex healthcare situations. Concepts of illness and disease management are integrated.
Prereq: NSG 424

NSG 426 Nursing Process Applications TBSN III CREDITS: 4
This course develops the knowledge base needed to provide patient-centered care to include acute intervention, ambulatory, and home care for selected health problems. Students apply the nursing process in increasingly complex situations. Concepts of illness, disease management and pharmacology are integrated.
Prereq: NSG 327
Coreq: NSG 429C

NSG 427 Nursing Process Applications TBSN IV CREDITS: 4
This course develops the knowledge base needed to provide patient-centered care in high acuity settings. Students apply the nursing process to clients in complex healthcare situations. Concepts of illness, disease management, and pharmacology are integrated.
Prereq: NSG 426

NSG 428C Clinical Practicum III CREDITS: 3
During this clinical practicum, students participate in supervised clinical experiences and selected observational clinical experiences that complement the accompanying nursing theory courses. This is the third in a series of four clinical practicum courses whereby students progress toward achievement of the program outcomes. In this course, students are expected to reach the supervised level of clinical performance.
Prereq: NSG 325
Coreq: NSG 424

NSG 429C Clinical Practice TBSN III CREDITS: 4
During this clinical practicum, students participate in supervised clinical experiences and selected observational clinical experiences that complement the accompanying nursing theory courses. This is the third in a series of four clinical practicum courses whereby students progress toward achievement of the program outcomes. In this course, students are expected to reach the supervised level of clinical performance.
Prereq: NSG 327 and NSG 338C
Coreq: NSG 426

NSG 432 High Acuity Nursing II CREDITS: 3
This course provides students with the knowledge base needed to care for high acuity patients with complex nursing needs. In this course the students apply hemodynamic, research and pharmacological concepts to high acuity patients to enhance clinical decision-making. Incorporated into this course are the current American Association of Critical Care Nurses (AACN) Standards for Acute and Critical Care Nursing and AACNPEARL (Practice, Evidence, Application, Resources, and Leadership) guidelines.
Prereq: (NSG 312 or NSG 332)

NSG 435 Nursing Case Management CREDITS: 3
This course will provide students with opportunities to develop skills in the nursing case management role. Students will explore collaborative strategies to enhance client care in a managed care environment and effective means to evaluate outcomes of interventions.
Prereq: NSG 325 or NSG 312

NSG 438C Clinical Practicum TBSN IV CREDITS: 3
During this clinical practicum, students participate in supervised clinical experiences and selected observational clinical experiences that complement the accompanying nursing theory courses. This is the capstone (final) course in a series of four clinical practicum courses whereby students progress toward achievement of the program outcomes. In this course, students are expected to reach the self-directed level of clinical performance.
Prereq: (NSG 424 or NSG 426) and (NSG 425 or NSG 427)

NSG 441 Holistic Nursing CREDITS: 3
This course introduces students to the concept of self-healing within a philosophical and theoretic framework that includes quantum mechanics, mind/body phenomenon, innate intelligence and the energy body. This foundation is used to explore holistic nursing and energy therapy practice.

NSG 449 Critical Care Transport CREDITS: 3
This is an elective course offered to students who have an interest in ground and air-medical transport. Areas of study include history of air medevac, basic helicopter orientation, crew resource management, and interprofessional communications. The course focuses on management of the critically ill patient during transport.
Prereq: NSG 325

NSG 450 Global Health Issues CREDITS: 3
This course is intended to provide an interdisciplinary qualitative and quantitative review of global health issues. It will focus on cultural variations in healthcare delivery. It will provide a broad survey of the main facts, issues, perspectives, methods, results and conclusions in the area of global populations and health. It will address some of the unique qualities of ethnomedicine, variations in socioeconomic status and the impact of societal variation on contemporary issues affecting global health. The course will provide an opportunity for students to engage in discussions of comparative regional health issues that impact healthcare delivery. The course will facilitate the student's ability to explain the significant role healthcare plays in the global community.

NSG 455 Ethical Issues/Current Nursing Practice CREDITS: 3
This course examines ethical issues confronting nursing practice in the dynamic environment of expanding technology, rising costs, and a diverse global society. These issues arise across the human lifespan and are analyzed using the available models of ethical decision-making including the Code of Ethics for Nurses.

NSG 460 Advanced Nursing Leadership CREDITS: 3
The student will explore and define diverse components and skills of successful leaders in nursing and health care. Emphasis is on knowledge of process/project management, professional presentations, grant processes, quality measures, work style analysis, and career options.
Prereq: ENG 325

NSG 461 Nursing Process Applications ABSN III CREDITS: 3
This course continues the development of knowledge, skills, and attitudes to provide acute, ambulatory, and home care for selected health problems. Students apply the nursing process, integrating concepts of illness and disease management, and health promotion. The course emphasizes roles of the provider of care, designer/manager/coordinator of care, and interprofessional collaborator in complex nursing situations.
Prereq: (NSG 361 and NSG 368C)
Coreq: NSG 412 and NSG 478C and NSG 479C

NSG 470 Special Topics in Nursing CREDITS: 3
This course offers students the opportunity to study special topics in nursing. Topics include issues in Aging, Forensics, Adult Health, and other courses based upon student needs and interests.

NSG 475 Leadership and Health Policy in Nursing CREDITS: 3
This course integrates the concept of leadership roles, principles, theories, models, and health policies in healthcare practice. Emphasis is on the knowledge, skills, and attitudes required for interdisciplinary leadership in the clinical setting.
Prereq: NSG 410

NSG 475C RN Leadership/Hlth Policy NSG Clinical CREDITS: 2
This course integrates the concept of leadership roles, principles, theories, models, and health policies in healthcare practice. Emphasis is on the knowledge, skills, and attitudes required for interdisciplinary leadership in the clinical setting. (pass/fail)
Prereq: NSG 410

NSG 478C Clinical Practicum for ABSN III CREDITS: 4
During the practicum, students participate in clinical experiences that complement the accompanying nursing theory courses. Students reach the self-directed level of clinical performance.
Prereq: NSG 361 and NSG 368C
Coreq: NSG 461

NSG 479C Clinical Practice ABSN III CREDITS: 5
During this practicum, students participate in clinical experiences that complement the accompanying nursing theory courses. Students reach the self-directed level of clinical performance.
Prereq: NSG 361
Coreq: NSG 461

NSG 485 RN Capstone Research CREDITS: 1
In this capstone course, students will validate achievement of program outcomes for generalist nursing practice. Students integrate and apply current evidence-based concepts from nursing science, humanities, and social and natural sciences.
Prereq: NSG 418

NSG 490 Contemporary Nursing Issues CREDITS: 3
This course incorporates the generalist nursing knowledge common to baccalaureate nursing education as delineated in AACN The Essentials of Baccalaureate Education for Professional Nursing Practice. Students will explore and analyze current issues facing the professional practice of nursing as a foundation for advanced nursing education. (This course is open only to students accepted in the MSN program.)

NSG 502 Healthcare Systems & Policy CREDITS: 3
Healthcare systems, policy design, implementation and evaluation are analyzed. Strategies for policy advocacy as well as legislative and regulatory issues are explored.

NSG 506 Nursing Theory and Role Development CREDITS: 3
Students critically analyze theories from nursing and related fields and apply these in a variety of situations that involve the health care of individuals, groups and communities. The development of advanced practice roles is explored, particularly in the areas of administration and education. Professional, social and legal factors that influence the roles and practice of nursing are considered.

NSG 509 Translation of Evidence CREDITS: 3
Translation of new knowledge and evidence into practice is examined. Current research is accessed, assessed, and applied to healthcare practice.

NSG 510 Princ of Primary Care & Family Health CREDITS: 3
Fundamental concepts associated with primary care practice and family health are examined

NSG 515 Advanced Issues in Clinical Practice CREDITS: 3
This course focuses on the study of current issues affecting clinical practice. Systems and multidisciplinary aspects of care will be considered as they impact the delivery of healthcare. Students will select a clinical area of interest and explore particular patient care issues through a problem-based analysis of client outcomes and healthcare interventions. Student will incorporate theories and research regarding best practice in delivery of healthcare and consider future trends.
Prereq: IPE 507

NSG 516 Quality & Safety in Healthcare CREDITS: 3
Strategies, theories, and methods to improve health outcomes are explored. Concepts of healthcare quality and safety are analyzed with a focus on patient and population health outcomes.

NSG 517 Quality Outcomes in Healthcare CREDITS: 3
In this course, students explore quality management in healthcare. Concepts essential to the development of quality outcomes will be emphasized. Students will work in teams to synthesize quality concepts through the development of improvement plans.

NSG 522 Ethical & Legal Practice in Healthcare CREDITS: 3
In this course, the student examines and analyses the impact of ethical, legal and political issues that are a force in the delivery of healthcare today. Through case studies, specific points of healthcare delivery are identified and used by the student for the analysis of the ethical, political and legal issues. The student will apply ethical, legal and political knowledge to both professional and organizational behavior.
Prereq: IPE 507

NSG 523 Population and Diversity CREDITS: 3
Population focused disease prevention and health promotion concepts are analyzed. Influences of social, biological, cultural and geographic variables on health outcomes are explored.

NSG 530 Advanced Pathophysiology and Diagnostics CREDITS: 3
This course provides nursing students with an understanding of physiology and pathophysiology that will support clinical decision making about diagnosis and treatment of acute and chronic presentations. The course will explore physiologic functions of the human body and its organ systems, along with concepts of pathophysiology pertaining to prevalent disorders, to explain etiology, predict clinical manifestations, and rationalize clinical nursing interventions. Nursing theoretical perspectives, developmental variables, and current research findings are emphasized throughout.

NSG 531 Adv Physiology and Pathophysiology CREDITS: 3
Students obtain advanced knowledge on selected physiologic and pathophysiologic mechanisms in health and disease across the life span.

NSG 545 Advanced Pharmacology CREDITS: 3
Students examine advanced concepts in pharmacotherapeutics necessary for the nurse practitioner role. Emphasis is placed on the pharmacokinetics and pharmacodynamics of drug classes.

NSG 549 Organizational Theory and Process CREDITS: 3
Factors that affect organizational performance are explored. Students analyze and apply the concepts of organizational and leadership behavior and theories in healthcare.

NSG 550 Advanced Health Assessment CREDITS: 2
Students obtain advanced knowledge to perform health histories, as well as developmental, physical, and psychosocial assessments for all systems across the lifespan.
Prereq: NSG 531

NSG 550L Advanced Health Assessment Lab CREDITS: 1
Students develop competence to perform advanced health histories, as well as developmental, physical, and psychosocial assessments for all systems across the lifespan.
Prereq: NSG 531
Coreq: NSG 552L

NSG 552L Clinical Testing & Procedures Lab CREDITS: 1
Students are introduced to interpretation of common diagnostic tests and performance of clinical procedural skills utilized in the primary care setting.
Coreq: NSG 550L

NSG 570 Analytical Thinking/Writing Nurse Pract CREDITS: 3
This course focuses on the refinement of analytic thinking and writing. The student will gain knowledge of various writing forms and styles. The student will synthesize and integrate this knowledge to develop professional communications, papers and presentations.

NSG 599 Independent Study in Nursing CREDITS: 3
This course offers students the opportunity to study special topics in nursing based upon the students' needs and interests.

NSG 600 Educational Theory & Practice CREDITS: 3
In this course students explore and critique theories and philosophical foundations of education and instructional design and their applications to education in nursing and healthcare. Students utilize principles of curriculum development, learning theories and instructional design to facilitate learning. Curriculum development is emphasized at institutional level, course level, and individual class level in academic and clinical settings. Students will develop a knowledge base in evidence-based educational practice.
Prereq: NSG 517

NSG 605 Collaborative and Inter-prof Leadership CREDITS: 3
The characteristics, roles, and practices of effective interprofessional teams are explored. The impact of collaboration and interprofessionalism on organizational leadership and clinical outcomes is emphasized.

NSG 609 Instructional Strategies and Evaluation CREDITS: 3
In this course students explore, analyze, and evaluate teaching strategies and assessment as applied to diverse populations. Students select appropriate teaching strategies and evaluation methods for traditional, on-line, and clinical instruction. Class activities offer opportunities to study the uses and limitations of a variety of instructional, assessment and evaluation techniques. Students apply technology tools with a primary focus in either the teaching/learning environment or healthcare practice.

NSG 614 Primary Care Adults and Geriatrics I CREDITS: 3
Students focus on the development of clinical decision making and other knowledge and skills needed to deliver advanced practice healthcare throughout the adult lifespan. Assessment, diagnosis, health promotion and prevention, and management of acute and chronic health issues within primary healthcare environments are emphasized.
Prereq: NSG 550 and NSG 552L
Coreq: NSG 615C

NSG 615C Practicum I:Prim Care Adults and Geri CREDITS: 2
Students develop competence to function in the advanced practice provider role with adults and older adults experiencing acute and chronic conditions.
Coreq: NSG 614

NSG 620 Informatics and Data Management CREDITS: 3
Current and emerging patient care, communication, data management and health information technologies are analyzed. Quantitative data analysis skills are developed and decision support systems are explored.

NSG 624 Primary Care Adults and Geriatrics II CREDITS: 3
This course is a continuation of Primary Care of Adult and Geriatrics I. Students focus on the development of clinical decision making and other knowledge and skills needed to deliver advanced practice healthcare throughout the adult lifespan. Assessment, diagnosis, health promotion and prevention, and management of acute and chronic health issues within primary healthcare environments are emphasized.
Prereq: NSG 614 and NSG 615C
Coreq: NSG 625C

NSG 625C Practicum II Prim Care Adults/Geriatrics CREDITS: 2
This course is a continuation of Practicum I. Students further develop competencies to function in the advanced practice provider role with adults and older adults experiencing acute and chronic conditions.
Coreq: NSG 624

NSG 634 Primary Care of Children/Adolescents CREDITS: 3
Students focus on the development of clinical decision making and other knowledge and skills needed to deliver advanced practice healthcare to children and adolescents. Assessment, diagnosis, health promotion and prevention, and management of common health issues in children and adolescents within primary healthcare environments are emphasized.
Prereq: NSG 624 and NSG 625C

NSG 635 Primary Care in Reproductive Health CREDITS: 2
Students focus on the development of knowledge and skills for clinical decision making needed to deliver advanced practice healthcare to individuals regarding reproductive health. Assessment, diagnosis, health promotion/disease prevention, and management of acute and chronic health issues for individuals and populations are emphasized.
Prereq: NSG 624 and NSG 625C

NSG 636C Pract III Children/Adolescents/Women CREDITS: 3
Students prepare to function in the advanced practice provider role with children, adolescents, and women.

NSG 649 Organizational Planning and Marketing CREDITS: 3
This course focuses on the role of strategic planning and marketing within healthcare organizations and in the global healthcare economy. Analytical tools and decision making paradigms for market planning and strategy are explored. Various planning approaches, styles and theories are introduced. Emphasis is placed on methodologies for developing nursing and organizational strategic marketing plans.

NSG 654 Adv Practice Roles and Leadership CREDITS: 1
Concepts of leadership are explored for Advanced Practice Roles in nursing.
Coreq: NSG 696

NSG 655 Financial Management of Healthcare CREDITS: 3
Terminology, tools, and methods of financial management in healthcare organizations and systems are examined. Concepts critical to making sound business and financial decisions in an ever changing healthcare economic climate are explored.

NSG 660 Human Resources CREDITS: 3
Human resource leadership and management practices in healthcare are explored. Advancing a culture of excellence through lifelong learning, building and leading collaborative interprofessional teams and designing innovative human resource practices will be emphasized.

NSG 665 Administrative Data and Info Management CREDITS: 3
In this course, students develop expertise in data management and quantitative thinking required for the strategic use of administrative data sets. Students apply quantitative analytical skills to nursing and healthcare systems decision making.
Prereq: NSG 660 and NSG 655

NSG 671C Administrative Residency CREDITS: 3
A capstone administrative experience is supervised by practice experts in nursing and healthcare administration. Competencies essential for the role of the nurse administrator are refined.
Prereq: NSG 509

NSG 675C FNP Preceptorship CREDITS: 4
Students refine history, examination, diagnosis, and management skills related to acute and chronic problems across the life span.
Prereq: NSG 636C

NSG 681C Educator Residency CREDITS: 3
This course is the capstone learning activity for the MSN concentration in Nurse Clinician Educator. Students actively participate in nursing education practice with supervision from education experts in nursing. Students learn and demonstrate growing competency with knowledge and skills essential to the nurse clinician educator.

NSG 695 Master's Project CREDITS: 3
This course provides the opportunity for students to integrate knowledge into a scholarly project in their area of interest under the direction of a faculty project advisor. Students identify a problem relevant to nursing, critique relevant literature and develop a plan to promote health, prevent disease or improve nursing practice. This course focuses on the refinement of analytic thinking and writing (pass/fail).
Prereq: NSG 671C or NSG 681C

NSG 696 Integration Evidence in Adv Nrsg Pract CREDITS: 2
Students identify an issue worthy of inquiry relevant to advanced practice nursing. Students critique and integrate evidence based literature to develop and present a scholarly project. Analytic thinking and writing skills are refined.
Coreq: NSG 654

OT 501 Fundamentals of Occupation CREDITS: 3
This course focuses on the history of occupational therapy (OT) and the development of OT philosophy, frames of reference, and theory. OT Practice Framework and activity analysis will be introduced with an overview of the OT process. The course will focus on developing critical thinking, clinical reasoning, and interpersonal skills that are necessary to become an effective and successful occupational therapist. This course will examine the OT's role in health and wellness, the OT/OTA practitioner relationship, OT ethics and the core values of OT practice, as well as the structure and functions of the national and state professional organizations.
Coreq: OT 510 and OT 550 and OT 554

OT 502 Research Methodologies CREDITS: 3
Students will critically review and analyze generic research methods used in healthcare. Emphasis is placed upon the student being able to read and interpret the literature as presented. Course content will introduce methods of scholarly research that will be used later in their research projects.

OT 510 Use of Occupations in Mental Health CREDITS: 3
This course focuses on principles and intervention techniques used with individuals and populations experiencing a range of psychosocial dysfunction. Topics include models of practice within psychiatric OT practice settings, introduction to therapeutic use of self and the development of communication skills. Creating a list of various assessment tools used in Mental Health settings and practicing group dynamics skills are part of this course. Analysis of evidence-based practice articles concerning mental health issues will be conducted.
Coreq: OT 501 and OT 554

OT 520 Humans in Motion CREDITS: 3
This comprehensive lecture and laboratory study analyzes normal human motion through task analysis. Students learn through hands-on laboratory sessions to enhance lectures and reading materials. Students are expected to have previous knowledge of human anatomy, specifically the musculoskeletal and nervous systems.
Prereq: BIO 521

Coreq: BIO 530 and OT 520L

OT 520L Humans in Motion Lab CREDITS: 0
This comprehensive lecture and laboratory study analyzes normal human motion through task analysis. Students learn through hands-on laboratory sessions to enhance lectures and reading materials. Students are expected to have previous knowledge of human anatomy, specifically the musculoskeletal and nervous systems.
Coreq: OT 520

OT 531 Occupational Response Pathological Cond CREDITS: 3
This course explores the many different pathological conditions that can affect human beings. Attention is placed on the effect of occupation as a result of developing various conditions. The holistic approach to medicine is applied to each disease process. Students will examine how OT can help improve the quality of life for individuals now faced with physical/mental challenges.
Coreq: OT 551

OT 540 Occupation Using Adaptations CREDITS: 3
This course provides students multiple opportunities to explore and experience the gamut of technology as it applies to occupational therapy intervention and practice. Students will explore different resources that supply adaptive equipment and technology and the necessary forms/steps required for reimbursement of such devices. Students will examine a myriad of adaptive devices as well as learn the use, application, and how to design/create splints. On-site visitation to prosthetic/orthotic manufacturer and state center for the evaluation of adaptive equipment (high and low tech) use by clients is included in this course.
Prereq: OT 531

OT 554 Fieldwork I-A Mental Health CREDITS: 1
Students are provided clinical experiences, supervised by professionals in mental health settings. Placements are designed to enrich classroom learning through direct observation and participation in treatment and intervention. Roles are assigned by program faculty and on-site supervisors. Students will document observations and interactions using reflective journal entries and structured assignments.
Coreq: OT 501 and OT 510

OT 555 Fieldwork I-B CREDITS: 1
Students engage consumers in community-based settings to explore issues concerning occupational therapy intervention within a variety of service populations (e.g. disability camps, shelters, adult day centers, elderly driving programs, etc.). Placements are designed to enrich classroom learning through direct observation and participation. Students document interactions in journals and assignments.
Coreq: OT 670

OT 556 Fieldwork 1-C (Pediatric) CREDITS: 1
Students engage consumers in pediatric settings (e.g. early intervention, schools, clinics, etc.) to explore issues concerning occupational therapy intervention. Placements are designed to enrich classroom learning through hands-on experiences. Students are supervised by occupational therapy personnel. Students will document interactions in structured assignments.
Coreq: OT 602

OT 557 Fieldwork 1-D (Geriatric) CREDITS: 1
Students are provided clinical experiences supervised by occupational therapy personnel in adult and geriatric settings (e.g. clinics, hospitals, nursing homes, home health agencies) to explore issues concerning occupational therapy intervention. Placements are designed to enhance classroom learning through hands-on experiences. Students will document interactions in structured assignments.
Prereq: OT 602
Coreq: OT 603

OT 560 Client Advocacy/Public Policy CREDITS: 3
This course will introduce the student to various governmental agencies and regulations impacting the practice of healthcare today. Understanding how a bill becomes law and effective lobbying techniques will be explored. How to advocate for a client in various settings and situations will be assessed.

OT 599 Independent Study in Occupational Therap CREDITS: 1
This course offers students the opportunity to study special topics within the practice of occupational therapy based upon the student's needs and interests. This course is repeatable.

OT 602 Occupations through the Lifespan I CREDITS: 4
This course incorporates knowledge, skills, methods, attitudes and judgments required to participate in OT programs in pediatrics. Lectures and lab activities will teach OT students to explore and study methods for evaluation, interpretation, and treatment techniques with the pediatric population in a variety of settings. Culture, politics, ethics, legal, socioeconomic and spiritual issues/needs will be addressed through case study, diagnosis related research, evaluation/assessment research and treatment strategies.
Prereq: OT 560
Coreq: OT 552 and OT 556 and OT 602L

OT 602L Occupations through the Lifespan I Lab CREDITS: 0
Coreq: OT 602

OT 603 Occupations through the Lifespan II CREDITS: 4
This course reviews theories of aging, occupational therapy specific assessment tools and intervention techniques, and issues of family dynamics. This course also focuses on patient and family education with an emphasis on a multiplicity of diagnoses. Students will learn to understand the attitudes, beliefs and values of the healthy and non-healthy aging population and relationships within their communities (socioeconomic, spiritual, cultural).
Prereq: OT 602
Coreq: OT 553 and OT 557 and OT 603L

OT 603L Occupations through the Lifespan II Lab CREDITS: 0
Coreq: OT 603

OT 610 Clinical Reasoning CREDITS: 3
This course challenges the student to view, develop, and use clinical reasoning skills on both the micro (individual consumer) and the macro (community) levels. Content addresses case study practice situations in concert with actual clients with whom they may be working during their fieldwork. Each student will recognize and prioritize problems and the full range of potential solutions from the client's point of view while considering the ramifications of different courses of

action. Through classroom discussions and onsite interviews with clients and agency representatives, students will analyze pertinent issues to understand client outcomes.

OT 615 Client Care Techniques CREDITS: 3
The student will develop skills in client care techniques used in occupational therapy interventions. These interventions include self-care, occupational tasks of daily living, orthoses, prosthetics, adaptive devices, adaptation principles and applications for a myriad of needs and settings. Theoretical frames of reference and a wide range of assessment and treatment tools and techniques are addressed. This course affords the student opportunities to engage in the initiation of and practice with assessment tools and adaptive intervention techniques.
Coreq: OT 615L

OT 615L Client Care Techniques Lab CREDITS: 0
The student will develop skills in client care techniques used in occupational therapy interventions. These interventions include self-care, occupational tasks of daily living, orthoses, prosthetics, adaptive devices, adaptation principles and applications for a myriad of needs and settings. Theoretical frames of reference and a wide range of assessment and treatment tools and techniques are addressed. This course affords the student opportunities to engage in the initiation of and practice with assessment tools and adaptive intervention techniques.
Coreq: OT 615

OT 630 Research Project Design CREDITS: 2
This course introduces the student to the process of designing a research study. The student will identify a topic of interest, develop a research question, conduct a literature review, and identify the appropriate method to address the research question.
Prereq: IDS 502

OT 631 Research Project Decisions CREDITS: 3
This course enables the student to participate in the process of designing a research study. The student will identify their topic of interest, develop their research question, conduct an extensive literature review, and identify the most appropriate method to collect the data required to answer their research question.

OT 635 Program Development CREDITS: 3
This course prepares the student to develop, alter or enhance OT programs in a wide variety of practice settings. Significant program designs, methods to implement these designs, and procedures for their evaluation from a business perspective will be explored. The student will design services that address cultural, political, ethical, legal, socioeconomic, and spiritual issues.

OT 640 Topics in Administration CREDITS: 2
This course will introduce the student to elements of the business world as it relates to the delivery of occupational therapy services. Using the principles of business management, the student will be challenged to critically think in the role of a manager of a clinic of his/her own design.
Prereq: OT 635

OT 650 Research Project Implementation CREDITS: 3
In this course the student will implement the plan for the research study developed in OT 630. The student will fine-tune his/her design, collect data, analyze and interpret results, and present findings.
Prereq: OT 630

OT 670 Occupational Fitness for Life CREDITS: 2
This course will introduce the student to the concept of a healthy lifestyle through the lifespan. The importance of nutrition and exercise will be examined. Occupations for all age groups to engage in for leisure and exercise will be explored. Students will critique their own lifestyle and balance of work, rest and play. The concept of wellness will be assessed throughout the lifespan exploring the effects on an individual's occupations when faced with the expected difficulties presented by aging, illness, and/or infirmities.
Coreq: OT 555

OT 682 OT Fieldwork II-A CREDITS: 8
The student uses accumulated academic, laboratory, and Level I fieldwork experiences in progression toward entry level occupational therapy competence. The student engages in clinical activities in facilities providing occupational therapy services to varied individuals, groups and populations across the life span. Provides increased opportunities to demonstrate skills in clinical reasoning and professionalism. Evaluation is pass/fail.
Coreq: OT 692

OT 692 OT Fieldwork II-B CREDITS: 8
The student uses accumulated academic, laboratory, and Level I fieldwork experiences in progression toward entry level occupational therapy competence. The student engages in clinical activities in facilities providing occupational therapy services to varied individuals, groups and populations across the life span. Provides increased opportunities to demonstrate skills in clinical reasoning and professionalism. Evaluation is pass/fail.
Coreq: OT 682

OT 695 Professional Seminar CREDITS: 1
Students meet in the academic setting to discuss essential professional activities: resume writing, employment interviewing, contract negotiation, issues of supervision, and registry examination preparation.
Prereq: OT 692

OTA 110 Human Movement for Occupation I CREDITS: 1
This course introduces students to the following foundations of human movement: osteology, arthrology, myology, neurology, arthrokinematics, and biomechanics. Students begin to analyze occupational performance based on their knowledge of human body systems.

OTA 120 Foundations of the Profession I CREDITS: 3
This course provides an orientation to the profession of occupational therapy in the context of current and emerging practice areas. An overview of the history, philosophy, ethics, tenets, and core values of the profession is presented. Students are introduced to the concepts of theory, models, frames of reference, and client-centered practice.

OTA 130 Human Movement for Occupation II CREDITS: 3
This course provides students with a broader perspective into the foundations of human movement. Students apply foundation topics presented in Human Movement for Occupation I to specific muscles of the human body, and perform in-depth occupational analysis. Basic pathological conditions related to each area of the body are presented.
Prereq: OTA 110
Coreq: OTA 130L and OTA 140

OTA 130L Human Movement for Occupation II Lab CREDITS: 0
This course provides students with a broader perspective into the foundations of human movement. Students apply foundation topics presented in Human Movement for Occupation I to specific muscles of the human body, and perform in-depth occupational analysis. Basic pathological conditions related to each area of the body are presented.
Coreq: OTA 130

OTA 140 Foundations of the Profession II CREDITS: 3
This course builds on topics presented in Foundations of the Profession I. Additional topics include basic patient care skills, evidence-based practice, activity analysis, management, professional development, and the application of the Occupational Therapy Practice Framework: Domain and Process (OTPF), 2nd edition. The practice environment, the roles of health care professionals, and a variety of influences on occupational performance are examined and discussed. The impact of culture, learning styles, and self-awareness is also explored.
Prereq: OTA 120
Coreq: OTA 130

OTA 170 Behavioral Health - Principles and Techn CREDITS: 3
In this course, students learn the roles of occupational therapy practitioners working with individuals who have behavioral health challenges. Frames of reference, basic group process skills, therapeutic use of self, and various intervention techniques are presented as they apply across settings and populations.
Prereq: (OTA 120 and PSY 120 or (PSY 101 and PSY 220))
Coreq: OTA 170C and OTA 170L

OTA 170C Behavioral Health Fieldwork - Level I CREDITS: 1
In this course, students observe and interact with individuals with behavioral health challenges. Students are assigned to diverse settings that provide a variety of behavioral health services for individuals across the lifespan. On-site supervision is provided at each setting. In addition to observation, students are provided with opportunities to develop communication skills and professional behaviors.
Coreq: OTA 170

OTA 170L Behavioral Health - Principles Techn Lab CREDITS: 0
In this course, students learn the roles of occupational therapy practitioners working with individuals who have behavioral health challenges. Frames of reference, basic group process skills, therapeutic use of self, and various intervention techniques are presented as they apply across settings and populations.
Coreq: OTA 170

OTA 201L Therapeutic Media Lab CREDITS: 1
This course examines therapeutic use of purposeful and meaningful occupations with diverse client populations. Students learn how to design, select, and complete goal directed client-centered activities.
Prereq: OTA 140

OTA 203 Pathologic Conditions - Effects on Occup CREDITS: 2
This course presents selected pathological conditions across the lifespan and their effects on occupational performance. Students explore the holistic process and begin to explore the role of occupational therapy during intervention.

Prereq: OTA 130

OTA 220 Pediatrics - Principles and Techniques CREDITS: 4
This course examines the developmental process from birth to adolescence. Students explore pediatric diagnoses and related effects on development and occupations. Theories and practice models/frames of reference are examined and applied to guide the evaluation and intervention processes. Laboratory activities reflect current and emerging intervention processes and techniques.
Prereq: OTA 201L and OTA 203
Coreq: OTA 220C and OTA 220L

OTA 220C Pediatric Fieldwork - Level I CREDITS: 1
In this course, students observe and provide hands-on services in pediatric occupational therapy settings, under the supervision of experienced occupational therapy personnel and other healthcare practitioners. Students continue to develop communication skills and professional behaviors through interactions with clients, families, healthcare practitioners, and facility staff.
Prereq: OTA 201L and OTA 203
Coreq: OTA 220

OTA 220L Pediatrics - Principles and Techniques L CREDITS: 0
This course examines the developmental process from birth to adolescence. Students explore pediatric diagnoses and related effects on development and occupations. Theories and practice models/frames of reference are examined and applied to guide the evaluation and intervention processes. Laboratory activities reflect current and emerging intervention processes and techniques.
Coreq: OTA 220

OTA 235 Physical Dysfunction - Princ/Techniques CREDITS: 5
This course examines the occupational performance of young adult to geriatric clients with physical dysfunctions. Students explore a variety of medical conditions and related effects on occupations. Theories and practice models/frames of reference are examined and applied to guide the evaluation and intervention processes. Laboratory activities reflect current and emerging intervention processes and techniques.
Prereq: OTA 201L and OTA 203
Coreq: OTA 235C and OTA 255

OTA 235C Adult/Geriatric Fieldwork - Level I CREDITS: 1
In this course, students observe and provide hands-on services in adult/geriatric occupational therapy settings, under the supervision of experienced occupational therapy personnel and other healthcare practitioners. Students continue to develop communication skills and professional behaviors through interactions with clients, families, healthcare practitioners, and facility staff.
Prereq: OTA 201L and OTA 203
Coreq: OTA 235

OTA 235L Physical Dysfunction - P&T Lab CREDITS: 0
This course examines the occupational performance of young adult to geriatric clients with physical dysfunctions. Students explore a variety of medical conditions and related effects on occupations. Theories and practice models/frames of reference are examined and applied to guide the evaluation and intervention processes. Laboratory activities reflect current and emerging intervention processes and techniques.

OTA 255 Assistive Technology CREDITS: 2
This course provides students multiple opportunities to explore and experience the gamut of technology as it applies to Occupational Therapy intervention and practice. Students learn to grade and adapt the environment, tools, materials, occupations, and interventions to reflect the changing needs of the client.
Prereq: OTA 201L and OTA 203
Coreq: OTA 235

OTA 255L Assistive Technology Lab CREDITS: 0
This course provides students multiple opportunities to explore and experience the gamut of technology as it applies to Occupational Therapy intervention and practice. Students learn to grade and adapt the environment, tools, materials, occupations, and interventions to reflect the changing needs of the client.

OTA 270C Fieldwork - Level II-A CREDITS: 6
In this course, students develop the skills of a competent, entry-level, generalist occupational therapy assistant (OTA). Students have the opportunity to provide Occupational Therapy (OT) services under the supervision of an experienced OT practitioner. The fieldwork experience is designed to promote clinical reasoning appropriate to the occupational therapy assistant role and to develop professionalism and competence in career responsibilities.
Prereq: OTA 255
Coreq: OTA 285

OTA 271C Fieldwork - Level II-B CREDITS: 6
In this course, students develop the skills of a competent, entry-level, generalist occupational therapy assistant (OTA). Students have the opportunity to provide Occupational Therapy (OT) services under the supervision of an experienced OT practitioner. The fieldwork experience is designed to promote clinical reasoning appropriate to the occupational therapy assistant role and to develop professionalism and competence in career responsibilities.
Prereq: OTA 255

OTA 285 Professional Seminar CREDITS: 1
This capstone course prepares students for the national certification exam and the application process for state licensure. This course also addresses students' readiness for entry-level practice, responsibilities to the profession, and the requirements for maintaining professional credentials.
Prereq: OTA 255
Coreq: OTA 270C

PBH 355 Principles of Public Health CREDITS: 4
This course provides a comprehensive introduction to public health concepts and practice by examining the philosophy, purpose, history, organization, functions, tools, activities and results of public health practice at the national, state, and community levels. The course also addresses important health issues and problems facing the public health system, and introduces students to epidemiology and its uses in public health.
Prereq: (MTH 210 or MTH 301)

PBH 375 Fundamentals of Epidemiology CREDITS: 4
This course provides an introduction to the concepts and methods of epidemiology and demonstrates how these can be applied to public health and clinical practice. The epidemiological approach is utilized to understand disease mechanisms, measure population health, and develop

interventions designed to modify and improve health. The application of basic epidemiology measures is used to draw appropriate inferences from epidemiological data.
Prereq: (BIO 212 or BIO 240) and (MTH 210 or MTH 301)

PHA 506 Clinical Medicine I CREDITS: 4
This course is the first in a sequence of four courses that will examine diseases and disorders commonly encountered in primary care practice. This course is designed to enable PA students to acquire and refine knowledge and skills necessary for effective, safe, and patient-centered management in the delivery of primary care to patients. An organ system approach will be used in conjunction with the MSPA course of study. Each disease or disorder will be analyzed in terms of epidemiology, pathophysiology, genetics and/or molecular mechanism, presenting signs and symptoms, physical exam findings, differential diagnosis, diagnostic studies, treatment and/or management, referral, patient education, and sequelae. Special attention will be given to the clinical application of information.

PHA 507 Clinical Medicine II CREDITS: 4
This course is the second in a sequence of four courses that will examine diseases and disorders commonly encountered in primary care practice. This course adds to course material from PHA 500 by introducing new diseases and disorders. This course is designed to enable PA students to acquire and refine knowledge and skills necessary for effective, safe and patient-centered management in the delivery of primary care to patients. An organ system approach is used in conjunction with the MSPA course of study. Each disease or disorder is described in terms of the epidemiology, pathophysiology, genetic and/or molecular mechanism, presenting signs and symptoms, physical exam findings, differential diagnosis, diagnostic studies, treatment and/or management, referral, patient education, and sequelae. Special attention will be given to clinical application of information.
Prereq: PHA 506

PHA 508 Clinical Medicine III CREDITS: 4
This course is the third in a sequence of four courses that will examine diseases and disorders commonly encountered in primary care practice. This course is designed to enable PA students to acquire and refine knowledge and skills necessary for effective, safe and patient-centered management in the delivery of primary care to patients. An organ system approach is used in conjunction with the MSPA course of study. Each disease or disorder is described in terms of the epidemiology, pathophysiology, genetic and/or molecular mechanism, presenting signs and symptoms, physical exam findings, differential diagnosis, diagnostic studies, treatment and/or management, referral, patient education, and sequelae. Special attention will be given to clinical application of information.
Prereq: PHA 507

PHA 509 Clinical Medicine IV CREDITS: 2
This course is the fourth in a sequence of four courses that will examine diseases and disorders commonly encountered in primary care practice. This course is designed to enable PA students to acquire and refine knowledge and skills necessary for effective, safe and patient-centered management in the delivery of primary care to patients. An organ system approach is used in conjunction with the MSPA course of study. Each disease or disorder is described in terms of the epidemiology, pathophysiology, genetic and/or molecular mechanism, presenting signs and symptoms, physical exam findings, differential diagnosis, diagnostic studies, treatment and/or management, referral, patient education, and sequelae. Special attention will be given to clinical application of information.

Prereq: PHA 508

PHA 514 Clinical Pathophysiology I CREDITS: 2
This is the first in a sequence of three classes designed to provide a conceptual understanding of pathophysiology as a basis for future clinical practice. Building on knowledge from normal anatomy and physiology, the course presents pathophysiological principles such as clinical manifestations and alterations in physiological functions in organ systems. Analysis and interpretation of common laboratory testing will be examined relative to the pathophysiological principles and concepts. The course follows an organ system approach in conjunction with the MSPA plan of study.

PHA 515 Clinical Pathophysiology II CREDITS: 2
This is the second in a sequence of three classes designed to provide a conceptual understanding of pathophysiology as a basis for future clinical practice. Building on knowledge from normal anatomy and physiology, the course presents pathophysiological principles such as clinical manifestations and alterations in physiological functions in organ systems. Analysis and interpretation of common laboratory testing will be examined relative to the pathophysiological principles and concepts. The course follows an organ system approach in conjunction with the MSPA plan of study.
Prereq: PHA 514

PHA 516 Clinical Pathophysiology III CREDITS: 2
This is the third in a sequence of three classes designed to provide a conceptual understanding of pathophysiology as a basis for future clinical practice. Building on knowledge from normal anatomy and physiology, the course presents pathophysiological principles such as clinical manifestations and alterations in physiological functions in organ systems. Analysis and interpretation of common laboratory testing will be examined relative to the pathophysiological principles and concepts. The course follows an organ system approach in conjunction with the MSPA plan of study.
Prereq: PHA 515

PHA 525 Clinical Skills I CREDITS: 4
This course is the first of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Coreq: PHA 525L

PHA 525L Clinical Skills I Lab CREDITS: 0
This course is the first of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Coreq: PHA 525

PHA 526 Clinical Skills II CREDITS: 4
This course is the second of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and

the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Prereq: PHA 525
Coreq: PHA 526L

PHA 526L Clinical Skills II Lab CREDITS: 0
This course is the second of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Coreq: PHA 526

PHA 527 Clinical Skills III CREDITS: 2
This course is the third of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Prereq: PHA 526
Coreq: PHA 527L

PHA 527L Clinical Skills III Lab CREDITS: 0
This course is the third of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Coreq: PHA 527

PHA 529 Clinical Skills IV CREDITS: 4
This course is the fourth of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Prereq: PHA 527
Coreq: PHA 529L

PHA 529L Clinical Skills IV Lab CREDITS: 0
This course is the fourth of four courses focusing on clinical knowledge, skills, and attitudes necessary for the physician assistant in primary care practice. Students participate in clinical and simulated-patient experiences with emphasis on therapeutic communication, medical history, and the physical exam. Relevant Clinical Laboratory Improvement Amendments (CLIA) waived tests are included.
Coreq: PHA 529

PHA 530 Research and Evidence - Based Practice CREDITS: 3
In this course, students focus on utilization of new knowledge and evidence to provide quality health care, initiate change and improve healthcare practice. Emphasis is placed on problem

identification, evaluation of evidence, and awareness of patient management and practice outcomes. Students develop skill in accessing, assessing and applying current research to healthcare practice.

PHA 533 Behavioral Medicine I CREDITS: 2
This course is s designed to foster the development and application of knowledge concerning the interrelationships of health, illness, culture and behavior for prevention, diagnosis, treatment, and health promotion for both the individual and the community.

PHA 534 Behavioral Medicine II CREDITS: 1
This course is the second of two courses designed to foster the development and application of knowledge concerning the interrelationship of health, illness, culture, and behavior for disease prevention, diagnosis, treatment, and health promotion. Behavior Medicine II focuses on public health concerns, health policy, and disease prevention and health promotion guidelines across the lifespan.
Prereq: PHA 533

PHA 538 Research & Evidence-Based Practice CREDITS: 2
In this course, students focus on utilization of new knowledge and evidence to provide quality healthcare, initiate change and improve healthcare practice. Emphasis is placed on problem identification, evaluation of evidence, and awareness of patient management and practice outcomes. Students develop skill in accessing, assessing and applying current research to healthcare practice.

PHA 541 Clinical Pharmacotherapeutics I CREDITS: 2
This is the first in a sequence of three courses designed to provide a solid foundation in pharmacokinetics and pharmacological and non-pharmacological interventions. This course combines the disciplines of traditional pharmacology, pharmacokinetics, and clinical pharmacotherapeutics. The course will enable PA students to acquire and refine the knowledge and skills necessary for the effective, safe and cost-effective management in the delivery of patient care. Included in this course are the principles of pharmacokinetics and pharmacodynamics; the mechanism of action, toxicities, and interactions; and medical therapeutics of specific drugs and drug groups. This course will follow an organ system approach in conjunction with the MSPA plan of study. This course fulfills a portion of the State of Virginia's requirements for Physician Assistants to apply for prescriptive authority.

PHA 542 Clinical Pharmacotherapeutics II CREDITS: 2
This is the second in a sequence of three courses designed to provide a solid foundation in pharmacokinetics and pharmacological and non-pharmacological interventions. This course combines the disciplines of traditional pharmacology, pharmacokinetics, and clinical pharmacotherapeutics. The course will enable PA students to acquire and refine the knowledge and skills necessary for the effective, safe and cost-effective management in the delivery of patient care. Included in this course are the principles of pharmacokinetics and pharmacodynamics; the mechanism of action, toxicities, and interactions; and medical therapeutics of specific drugs and drug groups. This course will follow an organ system approach in conjunction with the MSPA plan of study. This course fulfills a portion of the State of Virginia's requirements for Physician Assistants to apply for prescriptive authority.
Prereq: PHA 541

PHA 545 Clinical Pharmacotherapeutics III CREDITS: 1
This is the third in a sequence of three courses designed to provide a solid foundation in pharmacokinetics and pharmacological and non-pharmacological interventions. This course combines the disciplines of traditional pharmacology, pharmacokinetics, and clinical pharmacotherapeutics. The course will enable PA students to acquire and refine the knowledge and skills necessary for the effective, safe and cost-effective management in the delivery of patient care. Included in this course are the principles of pharmacokinetics and pharmacodynamics; the mechanism of action, toxicities, and interactions; and medical therapeutics of specific drugs and drug groups. This course will follow an organ system approach in conjunction with the MSPA plan of study.
Prereq: PHA 541

PHA 551 Introduction to Master's Project I CREDITS: 1
In this course, students will continue to apply the knowledge learned in PHA 530 towards the completion of a Master's Project. Students will take the concepts learned and begin to apply them to focused clinical questions. The Master's project will consist of a written paper and oral presentation of a brief, classical presentation of a patient case that elicits the clinical question, the search strategy utilized, the evidence chosen for the search and the critical appraisal of the evidence. The student will answer the clinical question based on the evidence as it relates to their particular patient's case and draw conclusions based on the literature.

PHA 552 Introduction to Master's Project II CREDITS: 1
In this course, students will continue to apply the knowledge learned in PHA 551 towards the completion of a Master's project. Students will take the concepts learned and begin to apply them to focused clinical questions. The Master's project will consist of a written paper and oral presentation of a brief, classical presentation of a patient case that elicits the clinical question, the search strategy utilized, the evidence chosen for the search and the critical appraisal of the evidence. The student will answer the clinical question based on the evidence as it relates to their particular patient's case and draw conclusions based on the literature.
Prereq: PHA 551

PHA 553 Introduction to Master's Project III CREDITS: 1
In this course, students will continue to apply the knowledge learned in PHA 552 towards the completion of a Master's Project. Students will take the concepts learned and begin to apply them to focused clinical questions. The Master's project will consist of a written paper and oral presentation of a brief, classical presentation of a patient case that elicits the clinical question, the search strategy utilized, the evidence chosen for the search and the critical appraisal of the evidence. The student will answer the clinical question based on the evidence as it relates to their particular patient's case and draw conclusions based on the literature.
Prereq: PHA 552

PHA 554 Introduction to Master's Project IV CREDITS: 1
In this course, students will continue to apply the knowledge learned in PHA 553 towards the completion of a Master's Project. Students will take the concepts learned and begin to apply them to focused clinical questions. The Master's project will consist of a written paper and oral presentation of a brief, classical presentation of a patient case that elicits the clinical question, the search strategy utilized, the evidence chosen for the search and the critical appraisal of the evidence. The student will answer the clinical question based on the evidence as it relates to their particular patient's case and draw conclusions based on the literature.
Prereq: PHA 553

PHA 575 Independent Study CREDITS: 1
This course is designed to enable Physician Assistant students to remediate course material. The material to be covered in this course will be determined by the course instructor based on the areas of weakness in the MSPA course and will be stated in the expanded course syllabus.

PHA 601 Internal Medicine I Clinical Rotation CREDITS: 3
This four week required rotation is designed to provide the student with an understanding of internal medicine as practiced in the inpatient or outpatient setting. The rotation provides students an opportunity to develop skills in the prevention, assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in the internal medicine setting.

PHA 602 Internal Medicine II Clinical Rotation CREDITS: 3
This four week required rotation is a continuation of PHA 601 and is designed to provide the student with an understanding of internal medicine as practiced in the inpatient or outpatient setting. The rotation provides students an opportunity to develop skills in the prevention, assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in the internal medicine setting.

PHA 603 Primary Care I Clinical Rotation CREDITS: 3
This required rotation is designed to provide the student with an understanding of primary care as practiced in the inpatient or outpatient setting. The rotation provides students an opportunity to develop skills in the prevention, assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in the primary care setting.

PHA 604 Primary Care II Clinical Rotation CREDITS: 3
This four week required rotation is a continuation of PHA 603 and provides the student with an understanding of primary care as practiced in the inpatient or outpatient setting. The rotation provides students an opportunity to develop skills in the prevention, assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in the primary care setting.

PHA 605 Pediatric Medicine Clinical Rotation CREDITS: 3
This four week required rotation is designed to provide the student with an understanding of pediatrics as practiced in the inpatient or outpatient setting. The rotation provides students an opportunity to develop skills in the prevention, assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in the pediatric setting.

PHA 606 Women's Health Clinical Rotation CREDITS: 3
This four week required rotation is designed to provide the student with an understanding of common obstetrics, gynecology and other women's health specific conditions as practiced in the hospital or non-hospital outpatient setting. The rotation will provide students an opportunity to develop skills in the prevention, assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in practice.

PHA 607 General Orthopedics Clinical Rotation CREDITS: 3
This four week required rotation is designed to provide the student with an understanding of general orthopedics as practiced in the inpatient or outpatient setting. The rotation will provide students an opportunity to develop skills in the prevention, assessment, diagnosis, management,

and treatment of acute and chronic medical problems commonly encountered in the orthopedic setting.

PHA 608 General Surgery Clinical Rotation CREDITS: 3
This four week required rotation is conducted in both clinical and hospital settings. The rotation is designed to provide the student with an understanding of general surgery as practiced in the hospital setting. The rotation will provide students an opportunity to develop skills in the diagnosis, treatment, and management of both the inpatient and outpatient surgical patient.

PHA 609 Psychiatry/Behavioral Med Clin Rotation CREDITS: 3
This four week required rotation is designed to provide the student with an understanding of psychiatry as practiced in the inpatient or outpatient setting. The rotation will provide students an opportunity to develop skills in the assessment, diagnosis, management, and treatment of acute and chronic medical problems commonly encountered in the psychiatry setting.

PHA 611 Emergency Medicine Clinical Rotation CREDITS: 3
This four week required rotation is designed to provide the student with an understanding of emergency medicine as practiced in a hospital-based emergency department. The rotation will provide students an opportunity to develop skills in the assessment, diagnosis, management, and treatment of common emergency, urgent, and non-urgent medical problems that present to the emergency room.

PHA 612 Elective Clinical Rotation I CREDITS: 3
This four week elective rotation is designed to provide the student an opportunity to pursue an area of personal interest, including medical subspecialties, medical education, health administration, and research. The student may also use this rotation to strengthen skills in a required area. The final decision on elective course content will be at the discretion of the PA Program Clinical Coordinator.

PHA 613 Elective Clinical Rotation II CREDITS: 3
This four week elective rotation is designed to provide the student an opportunity to pursue an area of personal interest, including medical subspecialties, medical education, health administration, and research. The student may also use this rotation to strengthen skills in a required area. The final decision on elective course content will be at the discretion of the PA Program Clinical Coordinator.

PHA 621 Master's Capstone CREDITS: 4
This course provides each student the opportunity to formally present the results of his/her individual EBM research completed during PHA 551-554. In addition, the course will provide an intensive review of common diseases and conditions of organ systems as outlined in the National Commission on the Certification of Physician Assistant's content blueprint for the Physician Assistant National Certification Exam. Knowledge and skills related to patient history and physical, diagnostics, differential diagnosis, clinical therapeutics, health maintenance and scientific concepts will also be reviewed. Program faculty will facilitate self-directed learning approaches to exam preparation.
Prereq: PHA 554

PHL 115 Foundations of Ethics CREDITS: 3
This course provides an introduction to the main branches of the philosophical field of ethics. Content consists of the main theories and debates in (1) met ethics, (2) normative ethics, and (3)

applied/practical ethics including bioethics. Students become familiar with various ethical positions and perspectives as well as the arguments given in support of those views. Additionally, students learn to think critically about arguments and positions within theoretical and practical ethics.

PHL 320 World Religions CREDITS: 3
In this course students develop knowledge of the diversity of world religions, the origins of religions and an understanding of the basic tenants of the major religions. In keeping with the multicultural focus of this course, students are expected to engage in a cross-cultural analysis and focus on contemporary features of selected world religions.
Prereq: (IDS 215 or SOC 213)

PHY 110 Physics for Health Sciences CREDITS: 4
This one semester course is designed as an introduction to underlying physical principles applied in the study the human body. Students of health sciences use mechanics, energy conservation, and the study of liquids and gases to model skeletal-muscular interactions, circulation, and respiration. This course does not satisfy requirements for graduation with a B.S. in Biomedical Sciences.
Coreq: PHY 110L

PHY 110L Physics for Health Sciences Lab CREDITS: 0
This one semester course is designed as an introduction to underlying physical principles applied in the study the human body. Students of health sciences use mechanics, energy conservation, and the study of liquids and gases to model skeletal-muscular interactions, circulation, and respiration. This course does not satisfy requirements for graduation with a B.S. in Biomedical Sciences.
Coreq: PHY 110

PHY 201 General Physics I CREDITS: 4
This course is the first of a two-semester lecture and laboratory study of general physics. The course is designed to present the fundamental principles of physics with emphasis on classical mechanics, gravitation, special relativity and elements of quantum mechanics. The laboratory component of the course is designed to support the concepts and principles defined during lecture. The laboratory will require students to be involved in experimentation that measure basic principles of physics. The laboratory will involve quantitative measurements that require a fundamental working knowledge of algebra and equations that are essential to general physics.
Prereq: MTH 165 or MTH 201 or MTH 170
Coreq: PHY 201L

PHY 201L General Physics I Laboratory CREDITS: 0
The laboratory will require students to be involved in experimentation that measure basic principles of physics. The laboratory will involve quantitative measurements that require a fundamental working knowledge of algebra and equations that are essential to general physics.
Coreq: PHY 201

PHY 202 General Physics II CREDITS: 4
This course is the second of a two-semester lecture and laboratory study of general physics. It is a continuation of the topics considered during the first semester of physics. Emphasis will be placed on an introduction to the basic concepts and fundamental principles of electricity, magnetism, optics, wave mechanics and modern physics. The laboratory will require students to be involved in experimentation that measure basic principles of physics as defined during lectures. The laboratory will involve quantitative measurements that require a fundamental working knowledge of algebra and equations that are essential to general physics.

Prereq: PHY 201
Coreq: PHY 202L

PHY 202L General Physics II Laboratory CREDITS: 0
The laboratory will involve quantitative measurements that require a fundamental working knowledge of algebra and equations that are essential to general physics.
Coreq: PHY 202

PLA 200 Prior Learning Assessment Seminar CREDITS: 1
This course is designed to provide a foundation for students pursuing prior learning assessment (PLA) credit for learning experiences that have taken place outside of a college course. Emphasis is placed on creating a portfolio that reflects the learning and experiences unique to each student, the student's professional, educational, and experiential history. This course is pass/fail and is repeatable.
Prereq: ENG 111

PSY 101 Introduction to Psychology CREDITS: 3
This course provides an introductory study of psychology with a broad knowledge base that includes psychological theory, research, and historical trends. This survey of psychology acquaints students with the major concepts and terminology of the discipline, including the biopsychosocial mode of behavior. Emphasis is placed on learning process, perception, biological bases of behavior, personality and social psychology. Particular focus is placed on motives and emotions as they affect human behavior and on individual differences. This course is not available for students who have completed PSY 120.

PSY 110 Introduction Field of Health Psychology CREDITS: 1
This course facilitates a general understanding of Health Psychology (HPSY) as a field of study. Students are introduced to and document knowledge, skills, and abilities as appropriate to developing and demonstrating the attainment of student learning outcomes in Health Psychology.

PSY 120 Intro and Developmental Psychology CREDITS: 4
This course combines an introductory study of psychology with an overview and general understanding of how the basic principles of psychology relate to human growth and development over the entire lifespan. The course addresses the major biopsychosocial variables that contribute to an individual's development, the ability to process information, concepts of learning and memory, and aspects that contribute to the development of personality. This course is not available for students who have completed PSY 101 and/or PSY 220.

PSY 199 Supervised Study in Health Psychology CREDITS: 3
Supervised study courses are designed to permit the student, with faculty supervision, to study topics or areas of particular interest. This course involves extensive readings and/or research under the supervision of a faculty member, and includes written papers. Permission of the Program Director is required, with supervising faculty assigned by the Program Director. This course may be repeated once for a total of 6 credits.

PSY 215 Introductory Fieldwork CREDITS: 2
Students reflect upon their observation of health psychology work occurring in the field. Students complete writing assignments concerning their observational placements to provide further exposure to the clinical field of health psychology. Permission from the Program Director is necessary to enroll in this course.

Prereq: PSY 240 or PSY 235
Coreq: PSY 215C

PSY 215C Introductory Fieldwork Placement CREDITS: 1
Students participate in off-campus observation of fieldwork involving the principles and applications of health psychology.
Coreq: PSY 215

PSY 220 Lifespan Development CREDITS: 3
This course is designed to study the basic biopsychosocial principles of human growth and development across the lifespan. The interaction between biological processes and psychological functioning is emphasized. The course encompasses research in human development, the effects of heredity, childbirth, preschool development, the challenges of adolescence, psychosocial interactions in adulthood, and issues involved in death and dying. This course may not be taken by students who have completed PSY 120.
Prereq: PSY 101

PSY 230 Positive Psychology CREDITS: 3
This course explores the concepts, historical background, and empirical grounding of positive psychology, as well as the techniques and exercises that are designed to enhance well-being. Positive Psychology is the study of how human beings prosper in the face of adversity. The goals of positive psychology include identifying and enhancing the human strengths and virtues that make life worth living and allow individuals and communities to thrive.
Prereq: PSY 101 or PSY 120

PSY 235 Social Psychology Health and Wellness CREDITS: 3
Students examine and apply theory and research concerning individuals and groups, including social interactions and processes, social change and stability, and development and change of attitudes. The effects of social settings on individual beliefs, attitudes, and behaviors are addressed, with an emphasis on understanding social determinants and their relation to health and wellness behaviors.
Prereq: PSY 101 or PSY 120

PSY 240 Abnormal Psychology CREDITS: 3
This course examines the nature, causes, and dynamics of abnormal behavior. Major psychological theories are examined and applied to psychological disorders, with special emphasis on understanding the biopsychosocial model. Etiology, symptoms, and treatments of the major categories of mental disorders are also covered.
Prereq: (PSY 101 or PSY 120)

PSY 250 Health Psychology CREDITS: 3
This course covers the theoretical, empirical and clinical aspects of health psychology and the interaction between behavior, health, and illness. The relationship of health psychology to other areas of psychology and health are discussed. Students apply key concepts of health psychology to enhance health behaviors.
Prereq: (PSY 101 or PSY 120)

PSY 299 Supervised Study in Health Psychology CREDITS: 3
These supervised study courses are designed to permit the student, with faculty supervision, to study topics or areas of particular interest. This course will involve extensive readings and/or

research under the supervision of a faculty member, and will include written papers. Permission of the Program Director is required, with supervising faculty assigned by the Program Director. Each course is a variable credit course that can be repeated once for a total of 6 credits.

PSY 300 Career Options in Psychology CREDITS: 1
This course helps students identify career options in psychology and determine the best path for preparing for those careers. Students learn the process for applying to graduate school, writing a resume, and conducting a comprehensive job search.
Prereq: PSY 215C and ENG 112

PSY 310 Research Methods in Psychology CREDITS: 3
This course provides an introduction to psychological research techniques and methodology. Topics covered include research design, data collection and interpretation, evaluation of research findings, and legal and ethical issues. Concepts are illustrated with examples of research on various topics in psychology. Electronic databases and access to empirical findings are also covered.
Prereq: (PSY 101 or PSY 120) and ((MTH 301 or MTH 210))
Coreq: PSY 310L

PSY 310L Research Methods Laboratory CREDITS: 1
Students in this course apply the knowledge and skills learned in the corequisite course concerning psychological research techniques and methodology. In addition, students learn how to use SPSS for data management and statistical analyses.
Coreq: PSY 310

PSY 335 Social Psychology of Health & Wellness CREDITS: 3
This course includes detailed examination and application of theory and research concerning individuals and groups, including social interactions and processes, social change and stability, and development and change of attitudes. The effects of social settings on individual beliefs, attitudes, and behaviors are addressed, with an emphasis on understanding social determinants and their relation to health and wellness behaviors.
Prereq: PSY 310
Coreq: PSY 335L

PSY 335L Social Psychology Laboratory CREDITS: 1
Students in this course apply knowledge and skills learned in the corequisite course concerning psychological research techniques and methodology. In addition, students enhance their knowledge of data management and statistical analyses
Coreq: PSY 335

PSY 340 Health Behavior Change Methods CREDITS: 4
The student evaluates and applies biopsychosocial theories and research concerning public and individual health management and treatment. In the lab the student applies knowledge and skills learned in the co-requisite course concerning psychological research techniques and methodology. In addition the student enhances knowledge of data management and statistical analyses. This course contains a lab component.
Prereq: IDS 254
Coreq: PSY 340L

PSY 340L Health Behavior Change Laboratory CREDITS: 0
The student evaluates and applies biopsychosocial theories and research concerning public and individual health management and treatment. In the lab the student applies knowledge and skills learned in the co-requisite course concerning psychological research techniques and methodology. In addition the student enhances knowledge of data management and statistical analyses. This course contains a lab component.
Coreq: PSY 340

PSY 345 Community Psychology CREDITS: 3
In this course, students explore and evaluate theory, research, historical foundations, and methods of community psychology. Students analyze potential relevance of community psychology for addressing major social and health problems. Students examine existing empirical knowledge base, including effective modes of community-based intervention.
Prereq: PSY 310
Coreq: PSY 345L

PSY 345L Community Psychology Laboratory CREDITS: 1
Students in this course apply the knowledge and skills learned in the corequisite course concerning psychological research techniques and methodology. In addition, students enhance their knowledge of data management and statistical analyses.
Coreq: PSY 345

PSY 355 Health Psychology CREDITS: 4
The student examines and applies theoretical, empirical and clinical aspects of health psychology and the interaction between behavior, health, and illness. The relationship of health psychology to other areas of psychology and health is discussed. The student applies key concepts of health psychology to enhance health behaviors. In the lab the student applies knowledge and skills learned in the co-requisite course concerning psychological research techniques and methodology. In addition, the student enhances knowledge of data management and statistical analyses. This course has a lab component.
Prereq: IDS 254
Coreq: PSY 355L

PSY 355L Health Psych Laboratory CREDITS: 0
The student examines and applies theoretical, empirical and clinical aspects of health psychology and the interaction between behavior, health, and illness. The relationship of health psychology to other areas of psychology and health is discussed. The student applies key concepts of health psychology to enhance health behaviors. In the lab the student applies knowledge and skills learned in the co-requisite course concerning psychological research techniques and methodology. In addition, the student enhances knowledge of data management and statistical analyses. This course has a lab component.
Coreq: PSY 355

PSY 380 Learning and Memory CREDITS: 4
The student examines and applies the major theories and research concerning learning, memory, and attention. The experimental study of conditioning, mental representation, memory systems, and knowledge acquisition are addressed. The student applies these theories and research to health and wellness behaviors. In the lab the student applies knowledge and skills learned in the co-requisite course concerning psychological research techniques and methodology. In addition, the

student enhances knowledge of data management and statistical analyses. This course has a lab component.
Prereq: IDS 254
Coreq: PSY 380L

PSY 380L Learn and Memory Laboratory CREDITS: 0
The student examines and applies the major theories and research concerning learning, memory, and attention. The experimental study of conditioning, mental representation, memory systems, and knowledge acquisition are addressed. The student applies these theories and research to health and wellness behaviors. In the lab the student applies knowledge and skills learned in the co-requisite course concerning psychological research techniques and methodology. In addition, the student enhances knowledge of data management and statistical analyses. This course has a lab component.
Coreq: PSY 380

PSY 399 Supervised Study in Health Psychology CREDITS: 3
These supervised study courses are designed to permit the student, with faculty supervision, to study topics or areas of particular interest. This course will involve extensive readings and/or research under the supervision of a faculty member, and will include written papers. Permission of the Program Director is required, with supervising faculty assigned by the Program Director. Each course is a variable credit course that can be repeated once for a total of 6 credits.

PSY 401 Senior Research I CREDITS: 3
The student develops a proposal to conduct an independent quantitative or qualitative research project that contributes to an ongoing psychological research program. The student presents and defends a proposal before a faculty panel.
Prereq: IDS 254

PSY 402 Senior Research II CREDITS: 3
Students implement the research proposed in PSY 401, including data collection, analysis, manuscript preparation, and presentation and defense of the project before a faculty panel.
Prereq: PSY 401

PSY 415 Senior Fieldwork I CREDITS: 2
The student meets weekly with course instructor to synthesize new experiences from field placement with prior knowledge. The student begins the capstone project integrating theory, research, and clinical application of knowledge.
Prereq: PSY 215C and PSY 355
Coreq: PSY 415C

PSY 415C Field Placement I CREDITS: 2
Students participate in off-campus supervised fieldwork placements involving the principles and applications of health psychology.
Coreq: PSY 415

PSY 425 Senior Fieldwork II CREDITS: 2
Students continue their field placement in the second semester. Students meet weekly with course instructor to complete their capstone projects, synthesizing theory, research, and clinical application of knowledge.
Prereq: PSY 415 and PSY 415C

Coreq: PSY 425C

PSY 425C Field Placement II CREDITS: 2
Students continue their participation in off-campus supervised fieldwork placements involving the principles and applications of health psychology.
Coreq: PSY 425

PSY 445 Community Psychology CREDITS: 3
The student explores and evaluates theory, research, historical foundations, and methods of community psychology. The student analyzes potential relevance of community psychology for addressing major social and health problems. The student examines existing empirical knowledge, including effective modes of community-based intervention.

PSY 470 Neuroscience CREDITS: 3
The student engages in advanced study of neuroscience, including consideration of topics such as sleep, pain, eating, and learning and memory. Special emphasis is placed on understanding cutting edge topics such as receptor subtypes, biological basis for learning and memory, neuronal plasticity, and psychoneuroimmunology.
Prereq: PSY 310 or BIO 312 or NSG 410 or IDS 453

PSY 490 History & Systems of Psychology CREDITS: 3
The student develops an appreciation and understanding of the history of psychology as both a science and a clinical application. Major theoretical approaches to understanding human and animal behavior are considered, as are developments of subspecialties within the discipline, including health psychology. The student gains experience in the seminar approach to learning as well as enhances skills with respect to critical thinking and oral and written communication through the development of a professional quality literature review.
Prereq: PSY 310 or BIO 312 or NSG 410 or IDS 453

PSY 499 Supervised Study in Health Psychology CREDITS: 3
These supervised study courses are designed to permit the student, with faculty supervision, to study topics or areas of particular interest. This course will involve extensive readings and/or research under the supervision of a faculty member, and will include written papers. Permission of the Program Director is required, with supervising faculty assigned by the Program Director. Each course is a variable credit course that can be repeated once for a total of 6 credits.

PTA 106 Basic Skills for the PTA CREDITS: 3
This course is designed to orient the student to the physical therapy profession, to begin to define the role of the physical therapist assistant, relevant information of professional history, ethics and physical therapy practice. Course content includes the organization of the medical chart, documentation, peer review, clinical roles and responsibilities of various physical therapy staff and basic patient care skills.
Coreq: PTA 106L and PTA 110

PTA 106L Basic Skills for the PTA Lab CREDITS: 0
This course is designed to orient the student to the physical therapy profession, to begin to define the role of the physical therapist assistant, relevant information of professional history, ethics and physical therapy practice. Course content includes the organization of the medical chart, documentation, peer review, Clinical roles and responsibilities of various physical therapy staff and basic patient care skills.

Coreq: PTA 106

PTA 108L Clinical Assessment Skills CREDITS: 2
Clinical Assessment Skills is a lab class designed to educate the student in basic clinical assessment skills that are routinely utilized by the Physical Therapist Assistant while delivering patient care. Areas of content include obtaining vital signs, goniometric measurement of joint range of motion, manual muscle testing, use of tilt table and appropriate documentation of assessment procedures.

PTA 110 Integrated Sciences for the PTA CREDITS: 2
This course provides an integration of the major areas of scientific study to prepare the physical therapist assistant student for the proper use of modalities and understanding of exercise principles. The focus is on the study of math skills and physics concepts relevant to the practice of physical therapy.
Coreq: PTA 106

PTA 150 Functional & Applied Anatomy CREDITS: 4
This course is designed to provide the student with an understanding of human movement and how pathological processes affect human movement. Content includes musculoskeletal anatomy, joint structure and function, biomechanics, posture analysis and gait analysis.
Prereq: PTA 106 and BIO 211
Coreq: PTA 150L

PTA 150L Functional & Applied Anatomy Lab CREDITS: 0
This course is designed to provide the student with an understanding of human movement and how pathological processes affect human movement. Content includes musculoskeletal anatomy, joint structure and function, biomechanics, posture analysis and gait analysis.
Coreq: PTA 150

PTA 161 Principles and Procedures of PT I CREDITS: 6
This course is designed for the student to perform basic procedures used by the physical therapist assistant in the delivery of healthcare. The course includes the instruction of theory of the clinical use, as well as the application of therapeutic modalities. The process of performing sterile technique is also included. The course format includes lectures related to the course content and laboratory sessions for students to practice techniques in a simulated clinical setting. In addition, students participate in a clinical rotation to practice techniques learned in the laboratory on patients in an actual clinical setting. Successful completion of 120 clinical hours under the direct supervision of a Physical Therapist or Physical Therapist Assistant is required.
Prereq: PTA 150 and PTA 108L
Coreq: PTA 161C and PTA 161L

PTA 161C Principles & Procedures of PT I Clinical CREDITS: 0
This course is designed for the student to perform basic procedures used by the physical therapist assistant in the delivery of healthcare. The course includes the instruction of theory of the clinical use, as well as the application of therapeutic modalities. The process of performing sterile technique is also included. The course format includes lectures related to the course content and laboratory sessions for students to practice techniques in a simulated clinical setting. In addition, students participate in a clinical rotation to practice techniques learned in the laboratory on patients in an actual clinical setting. Successful completion of 120 clinical hours under the direct supervision of a Physical Therapist or Physical Therapist Assistant is required.

Coreq: PTA 161

PTA 161L Principles & Procedures of PT I Lab CREDITS: 0
This course is designed for the student to perform basic procedures used by the physical therapist assistant in the delivery of healthcare. The course includes the instruction of theory of the clinical use, as well as the application of therapeutic modalities. The process of performing sterile technique is also included. The course format includes lectures related to the course content and laboratory sessions for students to practice techniques in a simulated clinical setting. In addition, students participate in a clinical rotation to practice techniques learned in the laboratory on patients in an actual clinical setting. Successful completion of 120 clinical hours under the direct supervision of a Physical Therapist or Physical Therapist Assistant is required.
Coreq: PTA 161

PTA 201 Principles of Therapeutic Exercise CREDITS: 2
This course is designed to provide information to the student relating to normal and abnormal responses to exercise, exercise physiology and rehab exercise program design and implementation, neuromuscular facilitation techniques and balance and coordination exercises.
Prereq: PTA 108L and PTA 150 and BIO 212
Coreq: PTA 201L

PTA 201L Principles of Therapeutic Exercise Lab CREDITS: 0
This course is designed to provide information to the student relating to normal and abnormal responses to exercise, exercise physiology and rehab exercise program design and implementation, neuromuscular facilitation techniques and balance and coordination exercises.
Coreq: PTA 201

PTA 203 Pathology for the Phys Therapist Asst CREDITS: 2
This course will provide the students with information about the basic pathological processes that occur in the human body. Consideration will be given to diseases commonly encountered by physical therapist assistants.
Prereq: PTA 161 and PTA 201
Coreq: PTA 251C

PTA 221 Psychosocial Aspects of Therapy CREDITS: 2
This lecture course focuses on the psychological reactions and behavioral changes seen in patients and their families experiencing illness and disability. Effective interaction between patient and the allied healthcare provider is emphasized.
Prereq: PSY 120 or (PSY 101 and PSY 220)

PTA 235 Principles & Procedures of PT II CREDITS: 4
This course will provide the student with the information and therapeutic techniques needed to treat a wide variety of conditions associated with the medical/surgical patient, including; cardiac rehab, pulmonary rehab, wound care, burn care, amputee rehab, orthosis use, home assessment and wheelchair mobility. Basic pharmacology and its effects on physical therapy care also will be presented throughout the course. The course is designed as a lecture and laboratory format.
Prereq: PTA 161 and PTA 201
Coreq: PTA 235L

PTA 235L Principles & Procedures of PT II Lab CREDITS: 0
This course will provide the student with the information and therapeutic techniques needed to treat a wide variety of conditions associated with the medical/surgical patient, including; cardiac rehab, pulmonary rehab, wound care, burn care, amputee rehab, orthosis use, home assessment and wheelchair mobility. Basic pharmacology and its effects on physical therapy care also will be presented throughout the course. The course is designed as a lecture and laboratory format.
Coreq: PTA 235

PTA 236 Principles & Procedures of PT III CREDITS: 4
This course provides the student with the essential information and therapeutic techniques necessary to treat the orthopedically impaired clients in the physical therapy setting. This course is designed with a lecture/laboratory format.
Prereq: PTA 161 and PTA 201
Coreq: PTA 236L

PTA 236L Principles & Procedures of PT III Lab CREDITS: 0
This course provides the student with the essential information and therapeutic techniques necessary to treat the orthopedically impaired clients in the physical therapy setting. This course is designed with a lecture/laboratory format.
Coreq: PTA 236

PTA 241 Pediatric Physical Therapy CREDITS: 2
Pediatric conditions of infants through adolescents with emphasis on developmental disabilities and providing Pediatric physical therapy in a variety of settings including outpatient clinic, school and early intervention, normal motor development, treatment theories and interventions, including handling techniques and use of pediatric equipment.
Prereq: PTA 203 and PTA 221 and PTA 236
Coreq: PTA 241L and PTA 252C

PTA 241L Pediatric Physical Therapy Laboratory CREDITS: 0
Pediatric conditions of infants through adolescents with emphasis on developmental disabilities and providing Pediatric physical therapy in a variety of settings including outpatient clinic, school and early intervention, normal motor development, treatment theories and interventions, including handling techniques and use of pediatric equipment.
Coreq: PTA 241

PTA 242 Adult Neurological Rehabilitation CREDITS: 3
This course explores the pathophysiology of and rehabilitation for a variety of neurological disorders. It is designed to inform the Physical Therapist Assistant student of common neurological pathology and appropriate physical therapy interventions for the adult patient population.
Prereq: PTA 203 and PTA 235
Coreq: PTA 242L

PTA 242L Adult Neurological Rehabilitation Lab CREDITS: 0
This course explores the pathophysiology and rehabilitation for a variety of neurological disorders including: cerebral vascular accident, spinal cord injuries, closed head injuries, commonly seen upper and lower motor neuron pathologies, and vestibular pathologies. This course is designed to inform the student of common neurological pathology and appropriate physical therapy intervention for this patient population.

Coreq: PTA 242

PTA 251C Clinical Practicum I CREDITS: 3
This full-time practicum is designed to provide the student the opportunity to apply previously learned and practiced skills in an actual clinical setting. The experience is four weeks in length with an emphasis on acute care and/or orthopedics. Supervision during the affiliation will be provided by clinical instructors in the health care facility to which the student is assigned. It is planned for clinical instructors to provide supervision, direction and guidance, but formal instruction will not be a planned part of these clinical experiences. Pass/Fail.
Coreq: PTA 203

PTA 252C Clinical Practicum II CREDITS: 7
This full-time clinical experience is designed to provide the student the opportunity to apply previously learned and practiced skills in an actual clinical setting. The experiences eight weeks in length at selected clinical facilities with emphasis on long-term rehab. Supervision during the clinical will be provided by clinical instructors in the health care facility to which the student is assigned. It is planned for clinical instructors to provide supervision, direction and guidance, but formal instruction will not be a planned part of these clinical experiences. Pass/Fail.
Coreq: PTA 241

PTA 285 Professional Seminar CREDITS: 2
This course is discussion/lecture designed to provide the student with current information concerning issues in the field of rehabilitation and to provide preparation for the licensing procedure. The student also will prepare for job seeking by writing cover letters, resumes and undergoing a mock job interview. This course will also prepare the student in group presentation using multimedia equipment and the internet for research.

RTH 104 Introduction to Respiratory Therapy CREDITS: 4
This course introduces the student to the profession of Respiratory Therapy, patient assessment, oxygen therapy and aerosol therapy, and relevant medical terminology. All equipment and procedures involved will be emphasized in the laboratory.

RTH 104L Introduction to Respiratory Therapy Lab CREDITS: 0
This course introduces the student to the profession of Respiratory Therapy, patient assessment, oxygen therapy and aerosol therapy, and relevant medical terminology. All equipment and procedures involved will be emphasized in the laboratory.

RTH 105 Fundamentals of Respiratory Therapy CREDITS: 4
This course introduces students to modalities of respiratory therapy including arterial blood gas sampling and analysis, bronchial hygiene, hyperinflation, respiratory pharmacology, and airway management. Content includes theory, selection, and use of respiratory therapy equipment and procedures.
Prereq: RTH 104
Coreq: RTH 110C and RTH 118

RTH 105L Fundamentals of Respiratory Therapy Lab CREDITS: 0
This course introduces the student to advanced modalities of respiratory care including assessment, arterial blood gas sampling and analysis, pulse oximetry, chest physical therapy, hyperinflation, respiratory therapy pharmacology, and airway management. Study will include theory, selection, and use of advanced respiratory therapy equipment and procedures.

RTH 110C Clinical Practice I CREDITS: 3

This course provides an introduction to the clinical setting and the practice and attainment of skills in Respiratory Care needed for patient care outside of the Intensive Care Unit. All entry-level modalities will be implemented after demonstrating proficiency in the laboratory.

Prereq: RTH 104 and IDS 140

Coreq: RTH 105 and RTH 118

RTH 118 Cardiopulmonary Anatomy and Physiology CREDITS: 3

This course is concentrated study of the structure and functional integration of the respiratory system in conjunction with circulatory system. Included are the factors involved in the mechanics of respiratory ventilation, pulmonary circulation, tissue metabolism, and oxygen transport and carbon dioxide elimination along with arterial blood gas interpretation. A general pharmacology unity will also be introduced. The course is concluded with a study of EKG and arrhythmia interpretation.

Prereq: IDS 140 and BIO 211

Coreq: RTH 105 and RTH 110C

RTH 121 Respiratory Pharmacology CREDITS: 3

This course consists of basic pharmacological principles, modes of action, and evaluation of patient response with specific emphasis on drugs used most frequently in the treatment of patients with cardiorespiratory disease.

Prereq: RTH 105 and RTH 118

Coreq: RTH 200 and RTH 249

RTH 200 Respiratory Pathophysiology CREDITS: 3

This course is a concentrated study of the etiology and pathogenesis of cardiopulmonary diseases. Additional focus includes clinical manifestations, complications, diagnosis and therapeutic intervention. In addition, cardiovascular diseases and their effect on and importance to the respiratory care practitioner will be covered. Special emphasis will be placed on assessment of COPD, myocardial infarction, congestive heart failure, and the etiology and pathogenisis of pulmonary edema and shock.

Prereq: RTH 105 and RTH 110C

Coreq: RTH 121 and RTH 249

RTH 201 Pulmonary Function Studies CREDITS: 2

This course covers a range of pulmonary studies including basic spirometry to computerized testing procedures. Plethysmography and basic pulmonary function testing procedures will be emphasized. Interpretation of data and diagnosis of obstructive and restrictive defects will be integrated with individual case studies.

Prereq: RTH 105 and RTH 110C

Coreq: RTH 220C

RTH 220C Clinical Practice II CREDITS: 3

This course provides a clinical introduction to the Intensive Care Unit and ventilator management of the critically ill. Continued competency on previously learned modalities is expected. This clinical experience also provides for observations and participation in the following specialty rotations: Physician Rounds, Neonatal Intensive Care, Operating Room, Sleep Laboratory and Polysomnography and Rehab and Homecare. Pass/Fail.

Prereq: RTH 249

Coreq: RTH 201 and RTH 241

RTH 230C Clinical Practice III CREDITS: 3
This course provides clinical practice in the Intensive Care Unit with refinement of skills in ventilator management of the critically ill. Continued competency on previously learned modalities is expected. This clinical practice also includes observation and participation in the following specialty rotations: pulmonary function laboratory, neonatal and pediatric intensive care, long-term ventilatory management, home care, and intubation. Pass/Fail.
Prereq: RTH 220C and RTH 254
Coreq: RTH 260 and RTH 285

RTH 241 Patient Education and Health Promotion CREDITS: 2
This course introduces concepts of patient education and health promotion in alternative care settings. Special emphasis is placed on the geriatric patient, components of pulmonary rehabilitation programs, reimbursement, home care equipment, and smoking cessation.
Prereq: RTH 121 and RTH 249
Coreq: RTH 220C and RTH 254

RTH 249 Intro to Mechanical Ventilation CREDITS: 4
This course serves as introduction to ventilators and monitoring devices, procedures and techniques specifically related to noninvasive and invasive mechanical ventilation. Study will include theory, selection, design and introduction to the use of non-invasive and invasive ventilation. This course includes a laboratory component.
Prereq: RTH 118 and RTH 105
Coreq: RTH 121 and RTH 200

RTH 249L Intro Mechanical Ventilation Laboratory CREDITS: 0
This course serves as introduction to ventilators and monitoring devices, procedures and techniques specifically related to noninvasive and invasive mechanical ventilation. Study will include theory, selection, design and introduction to the use of noninvasive and invasive ventilation.

RTH 252 Pediatrics and Neonatology CREDITS: 3
This course will provide an overview of the etiology, pathophysiology, diagnoses, and treatment of cardiopulmonary conditions frequently encountered in the newborn and pediatric patient. It will provide information on the developmental stages and assessment of the fetus, newborn, and child. Neonatal and pediatric resuscitation will be introduced.
Prereq: RTH 121 and RTH 249

RTH 254 Critical Care I CREDITS: 3
This course is a continuation of RTH 249. The student will be provided with an in-depth discussion of the mechanically ventilated patient. The discussion will focus on establishing the need for mechanical ventilation, the initiation of mechanical ventilation, modification of ventilatory parameters based on patient response, weaning and eventual discontinuance of mechanical ventilation. Mechanical ventilators will be classified according to their capabilities and uses. Specific ventilators and ventilatory techniques will also be presented. Laboratory exercises will be dispersed throughout the course as specific modes of ventilation are presented.
Prereq: RTH 249
Coreq: RTH 241

RTH 255 Critical Care II CREDITS: 3
This course provides students with an understanding of the principles of electrocardiography and other aspects of cardiopulmonary insufficiency. Pathophysiology, diagnosis and acute disease management of critically ill patients are reviewed.
Prereq: RTH 254 and RTH 220C
Coreq: RTH 260

RTH 260 Advanced Life Support CREDITS: 2
This course provides the knowledge and skills required to provide care to patients near to or in cardiopulmonary arrest. It presents advanced life support techniques for adult, pediatric, and neonatal populations. This course contains a laboratory component.
Prereq: RTH 254 and RTH 252
Coreq: RTH 230C and RTH 255 and RTH 285

RTH 260L Advanced Life Support Laboratory CREDITS: 0
This course provides the knowledge and skills required to provide care to patients near to or in cardiopulmonary arrest. It presents advanced life support techniques for adult, pediatric, and neonatal populations.

RTH 265 Adv. Cardiopulmonary Procedures Monitor CREDITS: 3
This course provides a foundation for the theory and application of advanced respiratory care procedures and physiologic monitoring techniques used in critical care patients. Procedures include: invasive hemodynamic monitoring, intracranial pressure monitoring, bronchoscopy, cardiac and thoracic ultrasound, apnea monitoring, thoracentesis, and metabolic studies.
Prereq: RTH 254

RTH 285 Professional Seminar CREDITS: 3
This capstone course prepares students for the national entry-level and registry examinations for respiratory therapy. This course also addresses the current socioeconomic and political issues and trends of healthcare, the importance of professionalism, and life-long learning.
Prereq: RTH 252 and RTH 254
Coreq: RTH 230C and RTH 260

RTH 301 Patient Assessment CREDITS: 2
This course provides essential components of patient assessment including patient interview, physical assessment, physiological monitoring, and basic diagnostic testing.
Prereq: BIO 212 or BIO 240

RTH 302 Respiratory Therapy Procedures I CREDITS: 4
This course delivers information within the cognitive and affective domains necessary for the respiratory therapist when performing entry-level therapies. The laboratory component ensures integration of psychomotor competency with the equipment and procedures introduced in the classroom.
Prereq: BIO 212
Coreq: RTH 302L

RTH 302L Respiratory Therapy Procedures I Lab CREDITS: 0
This course delivers information within the cognitive and affective domains necessary for the respiratory therapist when performing entry-level therapies. The laboratory component ensures

integration of psychomotor competency with the equipment and procedures introduced in the classroom.
Coreq: RTH 302

RTH 304 Cardiopulmonary Anatomy & Physiology CREDITS: 3
This course is a concentrated study of the anatomy and physiology of the renal, cardiac, and pulmonary systems. Emphasis is placed on the functional integration of these systems.
Prereq: BIO 212

RTH 305 Integrated Science for Resp Therapy CREDITS: 3
This course is an integration of the major areas of scientific study with application to the theory and procedures in the field of Respiratory Therapy. The course focuses on applied mathematics, organic, inorganic, and physiologic chemistry, and medical physics with emphasis on physical principles of gasses.
Prereq: BIO 212

RTH 308C Clinical Practice I CREDITS: 1
This course is an introduction to Respiratory Therapy and patient care in the clinical setting. Initially, the students will observe patient care. The level of clinical participation will increase after demonstration of laboratory procedure competency. (Pass/Fail)
Prereq: BIO 212 or BIO 240

RTH 310 Cardiopulmonary Pharmacology CREDITS: 3
This course focuses on a comprehensive review of all drugs that are either administered by respiratory therapists or play an integral part in the management of patients. Emphasis is placed on the clinical application of pharmacological agents, mechanism of action, and their therapeutic and adverse effects.

RTH 311 Respiratory Therapy Procedures II CREDITS: 4
This course is a continuation of the practices in Respiratory Therapy. It delivers information within the cognitive and affective domains necessary for the respiratory therapist when performing intermediate-level therapies. The laboratory component ensures integration of psychomotor competency with equipment and procedures introduced in the classroom.
Coreq: RTH 311L

RTH 311L Respiratory Therapy Procedures II Lab CREDITS: 0
This course is a continuation of the practices in Respiratory Therapy. It delivers information within the cognitive and affective domains necessary for the respiratory therapist when performing intermediate-level therapies. The laboratory component ensures integration of psychomotor competency with equipment and procedures introduced in the classroom.
Coreq: RTH 311

RTH 318C Clinical Practice II CREDITS: 3
This course provides the student with continuing experiences needed for integration of classroom and laboratory knowledge within the clinical arena. Demonstrated proficiency in the laboratory must be completed prior to performing any task in patient-care settings. This clinical experience provides opportunities for observation and participation within acute care settings predominantly outside of the Intensive Care Units. (Pass/Fail)
Prereq: RTH 302 and RTH 308C

RTH 320 Mechan Ventilation CREDITS: 4
This course provides an introduction to mechanical ventilation. Underlying concepts, historical development, classification, and modes specifically related to non-invasive and invasive mechanical ventilation are examined.
Prereq: RTH 311
Coreq: RTH 320L

RTH 320L Mechanical Ventilation Laboratory CREDITS: 0
This course provides an introduction to mechanical ventilation. Underlying concepts, historical development, classification, and modes specifically related to non-invasive and invasive mechanical ventilation are examined.
Coreq: RTH 320

RTH 330 Cardiopulmonary Physiology CREDITS: 3
This course focuses on the etiology and pathogenesis of cardiopulmonary diseases. Additional emphasis is placed on the clinical manifestations, diagnosis, complications, and general therapeutic intervention of reviewed diseases.
Prereq: RTH 320

RTH 332 Pulmonary Function Studies CREDITS: 2
This course reviews bedside spirometry and progresses to advanced pulmonary function testing (PFT) procedures. Quality assurance requirements are introduced. Interpretation of data related to diagnosis of pulmonary disorders is integrated within the course.
Prereq: RTH 301

RTH 410 Patient Education & Rehabilitation CREDITS: 3
This course presents concepts of patient education and healthcare in alternative settings. Special emphasis is placed on the geriatric patient, pulmonary rehabilitation programs, home care, and smoking cessation.
Prereq: RTH 330

RTH 420 Neonatal/Pediatric Respiratory Therapy CREDITS: 3
This course focuses on the etiology, pathophysiology, diagnoses, and treatment of cardiopulmonary conditions encountered in the newborn and pediatric patient. It provides information on the developmental stages and assessment of the fetus, newborn, and child, and the implications for respiratory therapy for these age groups. Neonatal and pediatric resuscitation are introduced.
Prereq: RTH 311

RTH 430 Patient Case Management I CREDITS: 3
This course is a continuation of RTH 320. The student is provided with an in-depth discussion of the initiation, management, and discontinuation of mechanical ventilation within traditional and nontraditional settings.
Prereq: RTH 320 and RTH 318C

RTH 448C Clinical Practice III CREDITS: 3
This course provides the student with continuing experiences needed for integration of classroom and laboratory knowledge within the clinical arena. Demonstrated proficiency in the laboratory must be completed prior to performing any task in patient care settings. This clinical experience also provides opportunities for observation and participation in specialty rotations including: (1) Pediatric and Neonatal Intensive Care, (2) Operating Room for airway management, (3)

Polysomnography, (4) Cardiopulmonary Rehabilitation and Homecare, and (5) Pulmonary Function Testing. All previous competencies will be maintained. (Pass/Fail)
Prereq: RTH 318C

RTH 450 Case Management II CREDITS: 3
This course provides strategies for the management of the critically ill patient. Emphasis is placed on the gathering of pertinent information and management of patients with specific disease states
Prereq: RTH 448C

RTH 478C Clinical Practice IV CREDITS: 3
This course provides the student with continuing experiences needed for integration of classroom and laboratory knowledge within the clinical arena. This clinical experience also provides opportunities for observation and participation in specialty rotations including: (1) Pediatric and Neonatal Intensive Care, (2) Operating Room for airway management, (3) Polysomnography, (4) Cardiopulmonary Rehabilitation and Homecare, and (5) Pulmonary Function Testing (if not completed in RTH 448). All previous competencies will be maintained. (Pass/Fail)
Prereq: RTH 430 and RTH 448C

RTH 488C Clinical Specialty Rotation CREDITS: 1
This course provides the student with a focused clinical experience. It allows for individualized exploration of a variety of settings and geographical locations not previously addressed in prior rotations.
Prereq: RTH 430 and RTH 448C

RTH 490 Professional Seminar CREDITS: 3
This capstone course prepares students for entry into the profession of Respiratory Therapy. This course also addresses current socioeconomic and political issues, healthcare trends, professionalism, and life-long learning.
Prereq: RTH 430

SCI 101 Introduction to the Natural Sciences CREDITS: 3
This course provides an overview of the content within different disciplines in the natural sciences. Through consideration of the scientific method, students develop a fundamental understanding of all sciences. Students also develop scientific literacy, understanding science and its impact upon everyday life as well as professional and clinical practice.

SOC 101 Introduction to Sociology CREDITS: 3
This course introduces students to the scientific study of human society and social behavior. The course focuses on the influence of culture, socialization, social structure, stratification, and social institutions. It identifies differentiations by race, ethnicity, gender, age, class and socio/cultural change and their effects on attitudes and behavior. Students engage in the process of thinking critically and logically about social issues from the sociological perspective.

SOC 210 Medical Sociology CREDITS: 3
This course is a survey of the social, economic and cultural factors in health and illness. The focus will be the sociology of health and medical care organizations and settings. The sociology of health occupations and selected contemporary issues and healthcare trends will be discussed.

SOC 213 Social Issues in Health Care Delivery CREDITS: 3
This course will introduce students to vital social issues affecting healthcare delivery in the United States. Course content will include health related demographics, ethnic and cultural diversity, applied communication methods and skills and an orientation to community healthcare. An experiential learning module will place students in a volunteer role working 20 hours with a community agency serving healthcare needs. Agencies serving geriatric clients or underserved populations will take priority.

SOC 225 Family Dynamics CREDITS: 3
This course is designed to provide the student and overview of the diversity of the family unit. Information presented will assist in the comparison of similarities, differences and concerns of various families and individuals. Family structure, ethnic diversity and lifestyle variations also will be addressed.
Prereq: SOC 213

SOC 301 Race & Ethnicity in Healthcare CREDITS: 3
This course will provide students with a fundamental understanding of the dynamics of racial and ethnic relations in American daily life. The course will present an in-depth look at the history, theory, and methods that inform social science research on pressing social issues, such as diversity and inequality, and their impact on healthcare locally, regionally, and nationally.
Prereq: SOC 213

SOC 320 Deviance and Medicalization CREDITS: 3
The course is a study of the nonconformity to social norms as defined from the point of view of a particular normative structure. The course addresses the development of these standards, or norms, and the consequences of violating norms, socially and legally, and the development of deviant identity and subgroups. In addition, the concept of social control, both positive and negative, which motivates people to adhere to traditions and rules and laws, is examined. The course will be informed, where applicable, by health and medicine.
Prereq: SOC 213

SPA 111 Spanish I CREDITS: 4
An introductory course that delivers oral and written communication in Spanish with emphasis in the present tense. Tutorial labs are included.

SPA 112 Spanish II CREDITS: 4
A continuation of Spanish I with emphasis upon communication in the present and past tense. Tutorial labs are included.
Prereq: SPA 111

SUR 100 Introduction to Surgical Technology CREDITS: 2
Students are introduced to the hospital, healthcare organization, and operating room environment. The curriculum framework and foundational concepts for practice as a certified surgical technologist are presented
Prereq: BIO 211 and HLT 215
Coreq: SUR 103 and SUR 108

SUR 101 Introduction to Surgical Technology CREDITS: 3
This course introduces students to the hospital, healthcare organization, and operating room environment. The curriculum framework and foundational concepts for certified surgical technologist practice are presented. The various roles of surgical team members, ethical and legal responsibilities, potential safety hazards, and history of surgery are introduced. Biomedical concepts related to surgical procedures, such as electricity and endoscopy, are also covered.
Prereq: BIO 211 and HLT 215
Coreq: SUR 102 and SUR 109

SUR 102 Principles of Surgical Technology CREDITS: 3
This course describes basic concepts related to surgical procedures and surgical instrumentation. Care of surgical instruments and supplies, as well as asepsis and surgical sterile technique are demonstrated and practiced. Basic general surgical procedures and set-up are introduced including sutures /stapling devices, and sterilization methods. This course provides classroom and laboratory experience.
Coreq: SUR 101 and SUR 102L and SUR 109

SUR 102L Principles Surgical Technology Lab CREDITS: 0
This course describes basic concepts related to surgical procedures and surgical instrumentation. Care of surgical instruments and supplies, as well as asepsis and surgical sterile technique are demonstrated and practiced. Basic general surgical procedures and set-up are introduced including sutures /stapling devices, and sterilization methods. This course provides classroom and laboratory experience.
Coreq: SUR 102

SUR 103 Principles of Surgical Technology CREDITS: 7
The student is introduced to the principles of surgical technology and examines the perioperative roles of the surgical technologist. The creation and maintenance of the sterile field and identification of surgical instrumentation are presented. Concepts taught didactically are reinforced via laboratory practice and demonstrations. (3 credits class, 4 credits lab)
Prereq: BIO 211 and HLT 215
Coreq: SUR 100 and SUR 103L and SUR 108

SUR 103L Princ Surgical Technology Laboratory CREDITS: 0
The student is introduced to the principles of surgical technology and examines the perioperative roles of the surgical technologist. The creation and maintenance of the sterile field and identification of surgical instrumentation are presented. Concepts taught didactically are reinforced via laboratory practice and demonstrations. (3 credits class, 4 credits lab)
Coreq: SUR 103

SUR 108 Principles of Asepsi CREDITS: 2
The focus of this course is microorganisms and how they relate to infection. The student is introduced to the principles of asepsis and surgical conscience, sterilization and disinfection, environmental disinfection, sterile storage and distribution, and wound healing.
Prereq: BIO 211 and HLT 215
Coreq: SUR 100 and SUR 103

SUR 109 Surgical Patient Care CREDITS: 3
This course provides concepts related to surgical case management for the preoperative, intraoperative, and postoperative patient. It also identifies cultural and ethical issues related to

surgery and addresses considerations for special patient populations. Hemostasis, wound healing, and surgical emergency situations are explained. Basic pathophysiology of fluid and hemodynamic disorders, tumors, and inflammation is also discussed.
Prereq: BIO 211 and HLT 215
Coreq: SUR 101 and SUR 102

SUR 110 Surgical Pharmacology CREDITS: 3
The course introduces drug classifications and appropriate uses related to surgical procedures. Medication dosage calculation, conversions, abbreviations and techniques for use during surgery are discussed and practiced. The role of the surgical technologist in handling intraoperative medications/solutions and in assisting with the administration of surgical anesthesia during various surgical procedures is demonstrated.
Coreq: SUR 213C

SUR 111C Surgical Practicum I CREDITS: 3
This course is the first of three clinical practicums. Students participate in supervised clinical experiences and selected observational experiences that complement the surgical procedures taught in didactic coursework. Students will apply theoretical knowledge while gaining aptitude, skills and proficiency.
Prereq: SUR 100 and SUR 103 and SUR 108
Coreq: SUR 201

SUR 112C Introduction to Surgical Practicum CREDITS: 3
During this clinical practicum, students participate in selected supervised clinical and observational experiences that complement the surgical technology theory courses. This is the first in a series of four clinical practicum courses where students progress toward achievement of the program outcomes. In this course students are expected to reach a novice or beginning level of clinical performance during simple surgical procedures. Pass/Fail
Prereq: SUR 102 and SUR 109

SUR 113 Surgical Pharmacolog CREDITS: 2
The student is introduced to drug classifications and appropriate uses related to surgical procedures. Dosage calculation, conversions, abbreviations, and techniques for use during surgery are discussed and practiced. The role of the surgical technologist in handling intraoperative medications/solutions and in assisting with the administration of surgical anesthesia during various surgical procedures is addressed.
Prereq: SUR 201 and SUR 111C
Coreq: SUR 210 and SUR 214C

SUR 200 Surgical Procedures I CREDITS: 4
This course develops the student's knowledge base of pathophysiology and manifestations of disease related to diagnostic and surgical interventions for the following systems/conditions: digestive, biliary, urinary, male and female reproductive, integumentary, and cancer. Biomedical concepts and devices related to selected surgical procedures are included.
Prereq: SUR 112C
Coreq: SUR 213C

SUR 201 Surgical Procedures CREDITS: 3
This course is the first in a series of three that introduces the student to surgical procedures. Pathophysiology, surgical anatomy, instrumentation, and procedural steps are discussed and combined with a consistent method of reinforcement at the clinical site.
Prereq: SUR 108
Coreq: SUR 111C

SUR 210 Surgical Procedures CREDITS: 3
This course is the second in a series of three that introduces the student to surgical procedures. Pathophysiology, surgical anatomy, instrumentation, and procedural steps are discussed and combined with a consistent method of reinforcement at the clinical site.
Prereq: SUR 201 and SUR 111C
Coreq: SUR 113 and SUR 214C

SUR 212C Surgical Practicum Elective CREDITS: 3
The student participates in selected supervised surgical technologist clinical and observational experiences during this clinical practicum elective. (Pass/Fail)
Prereq: SUR 111C

SUR 213C Surgical Practicum I CREDITS: 3
During this clinical practicum, students participate in selected supervised clinical and observational experiences that complement the accompanying theory courses. This is the second in a series of four clinical practicum courses where students progress toward achievement of the program outcomes. Students are expected to reach the assisted (or second scrub person) level of clinical performance in selected surgical procedures. Pass/Fail
Prereq: SUR 112C
Coreq: SUR 110 and SUR 200

SUR 214C Surgical Practicum I CREDITS: 6
This course is the second of three clinical practicum. The student participates in supervised clinical experiences and selected observational experiences that complement the surgical procedures taught in didactic coursework. The student applies theoretical knowledge while gaining aptitude, skills, and proficiency.
Prereq: SUR 201 and SUR 111C
Coreq: SUR 113 and SUR 210

SUR 215C Surgical Practicum III CREDITS: 6
This course is the third of three clinical practicum. The student participates in supervised clinical experiences and selected observational experiences that complement the surgical procedures taught in didactic coursework. The student applies theoretical knowledge while gaining aptitude, skills, and proficiency.
Prereq: SUR 210 and SUR 214C
Coreq: SUR 221 and SUR 228

SUR 221 Surgical Procedures III CREDITS: 3
This course is the third in a series of three that introduces the student to surgical procedures. Pathophysiology, surgical anatomy, instrumentation, and procedural steps are discussed and combined with a consistent method of reinforcement at the clinical site.

Prereq: SUR 210 and SUR 214C
Coreq: SUR 215C and SUR 228

SUR 224 Surgical Procedures II CREDITS: 4
This course further develops the student's knowledge base of pathophysiology and manifestations of disease related to diagnostic and surgical interventions for the following systems: musculoskeletal, nervous, sensory, respiratory, endocrine, and cardiovascular systems. Biomedical concepts and devices related to selected surgical procedures are included.
Prereq: (SUR 200 and SUR 213C)
Coreq: SUR 225C and SUR 226C

SUR 225C Specialty Practicum CREDITS: 3
During this clinical practicum, students participate in selected supervised clinical and observational experiences that complement the accompanying surgical technology theory course. This is the third in a series of four clinical practicum courses where students progress toward achievement of the program outcomes. Students are expected to reach the supervised level of clinical performance in selected specialty surgical procedures. Pass/Fail
Prereq: (SUR 200 and SUR 213C)
Coreq: SUR 224 and SUR 226C and SUR 227

SUR 226C Advanced Surgical Practicum CREDITS: 3
During this clinical practicum, students participate in selected supervised clinical and observational experiences that complement the accompanying theory course. This is the fourth in a series of four clinical practicum courses where students progress toward achievement of the program outcomes. Students are expected to reach the supervised level (or first scrub level) of clinical performance in selected surgical procedures. Pass/Fail
Prereq: (SUR 200 and SUR 213C)
Coreq: SUR 224 and SUR 225C and SUR 227

SUR 227 Professional Seminar CREDITS: 3
This capstone course allows students to validate achievement of program outcomes and readiness for entry-level practice as a surgical technologist. Students demonstrate knowledge for entry-level practice via standardized testing and preparation for the NBSTSA Certified Surgical Technologist (CST) Exam.
Prereq: (SUR 200 and SUR 213C)
Coreq: SUR 225C and SUR 226C

SUR 228 Surgical Technology Seminar CREDITS: 2
In this capstone course, the student demonstrates achievement of program outcomes and readiness for entry-level practice as a surgical technologist. The student demonstrates knowledge for entry-level practice via standardized testing and preparation for the NBSTSA Certified Surgical Technologist (CST) Exam.
Prereq: SUR 210 and SUR 214C
Coreq: SUR 215C and SUR 221

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Academic Calendar

Semester	Fall 2014	Spring 2015	Summer 2015
Tuition Fees Due by	Jul. 21	Dec. 12	Apr. 24
BLUE Week	Aug. 11 – 19		
Faculty Semester Begins	Aug. 11	Jan. 5	
College Meeting for Faculty & Staff	Aug. 13	Jan. 7	
Residence Hall Move-in	Aug. 15	Jan. 9	May 14
Orientation for Students	Aug. 18	Jan. 12	May 15
Convocation & Programmatic Orientation	Aug. 19		
Classes Begin: *General, 1st Half, & 10 Wk. Sessions*	Aug. 20	Jan. 14	May 18
Graduate Students: Last Day to Add/Drop w/full refund	Aug. 26	Jan. 20	May 26
College Closed	Sept. 1		May 25
Spring Break (No classes, Offices open)		Mar. 2 – 8	
Undergraduates: Last Day to Add/Drop w/full refund	Sept. 3	Jan. 27	May 26
Last day to Withdraw "W": 1st Half Session	Sept. 16	Feb. 10	
Last day to Withdraw "W": Ten Week Session	Sept. 24	Feb. 17	
Midterm Grades Due	Oct. 10	Mar. 13	
Classes End: 1st Half Session	Oct. 13	Mar. 13	Jun. 22
Summer Exams 1st Half Session			Jun. 23
Reading Day/Faculty Ed Day (No classes, Offices open)	Oct. 14		
Classes Begin: 2nd half Session	Oct. 15	Mar. 16	Jun. 24
Last day to Remove an "I"	Oct. 17	Mar. 20	
Last day to Withdraw "W": General Session	Oct. 17	Mar. 20	Jun. 2
Classes End: Ten Week Session	Oct. 30	Mar. 31	
College Closed			Jul. 3
Returning Students Registration Begins	Nov. 6	Mar. 26(SU), Apr. 9 (FA)	
Last day to Withdraw "W": 2nd Half Session	Nov. 10	Apr. 8	
New Student Registration Begins	Nov. 13	Apr. 2 (SU), Apr. 16 (FA)	
Student Break (no classes)	Nov. 26 - 30		
College Closed	Nov. 27 - 28		
Classes End: General Session & 2nd Half Session	Dec. 2	Apr. 28	Jul. 27
Exams	Dec. 3 – 9	Apr. 29, 30, May 1, 4, 5	Jul. 28-31
Final Grades Due (noon)	Dec. 10	May 6	Aug. 1
Graduation	Dec. 12	May 8	
Residence Hall Move-out (noon; non-returning students)	Dec. 13	May 9	Aug. 1
Winter Break (faculty/staff)	Dec. 22 – Jan. 2		

College Closed: No classes held and offices are not expected to be open.
Faculty Semester Begins: Full-time and part-time faculty should be present to prepare for the upcoming semester.

Semester	Fall 2015	Spring 2016	Summer 2016
Tuition Fees Due by	Jul 20	Dec. 14	Apr. 25
BLUE Week	Aug. 10 -18		
Faculty Semester Begins	Aug. 10	Jan. 4	
College Meeting for Faculty & Staff	Aug. 10	Jan. 6	
Residence Hall Move-in	Aug. 14	Jan. 8	May 13
Orientation for Students	Aug. 17	Jan. 11	May 16
Convocation & Programmatic Orientation	Aug. 18		
Classes Begin: *General, 1st Half, & 10 Wk. Sessions*	Aug. 19	Jan. 13	May 18
Graduate Students: Last Day to Add/Drop w/full refund	Aug. 26	Jan. 20	May 24
Undergraduates: Last Day to Add/Drop w/full refund	Sept. 2	Jan. 27	May 24
College Closed	Sept. 7		May 23
Spring Break (No classes, Offices open)		Mar. 7 - 13	
Last day to Withdraw "W": 1st Half Session	Sept. 15	Feb. 5	
Last day to Withdraw "W": Ten Week Session	Sept. 23	Feb. 19	
Midterm Grades Due	Oct. 9	Mar. 4	
Classes End: 1st Half Session	Oct. 12	Mar. 14	Jun. 21
Summer Exams 1st Half Session			Jun. 22
Last day to Remove an "I"	Oct. 12	Mar. 18	
Reading Day/Faculty Ed Day (No classes, Offices open)	Oct. 13		
Classes Begin: 2nd half Session	Oct. 14	Mar. 14	Jun. 23
Last day to Withdraw "W": General Session	Oct. 16	Mar. 18	Jun. 9
Classes End: Ten Week Session	Oct. 27	Mar. 29	
College Closed			Jul. 4
Returning Students Registration Begins	Nov. 5	Mar. 24 (SU), Apr. 7 (FA)	
Last day to Withdraw "W": 2nd Half Session	Nov. 6	Apr. 6	
New Student Registration Begins	Nov. 12	Mar. 31 (SU), Apr. 14 (FA)	
Student Break (no classes)	Nov. 25 – 29		
College Closed	Nov. 26 - 27		
Classes End: General Session & 2nd Half Session	Dec. 1	Apr. 26	Jul. 26
Exams	Dec. 2 – 4, 7 - 8	Apr. 27 – 29, May 2 - 3	Jul. 28 – 29, Aug. 1 – 2
Final Grades Due (noon)	Dec. 9	May 4	Aug. 4
Graduation	Dec. 11	May 6	
Residence Hall Move-out (noon; non-returning students)	Dec. 12	May 7	Aug. 3
College Closed	Dec. 21 – Jan. 3		

College Closed: No classes held and offices are not expected to be open.
Faculty Semester Begins: Full-time and part-time faculty should be present to prepare for the upcoming semester.

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