

GATTON COLLEGE OF PHARMACY
CATALOG
2016 - 2017



EAST TENNESSEE STATE UNIVERSITY

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GENERAL INFORMATION

Degree requirements

Degree requirements for the programs of study initiated under provisions of this bulletin shall remain in effect for six years. Students not completing requirements within the six-year period are subject to dismissal. The time limitation may be extended for interruption by military service where enrollment is resumed immediately upon release from service.

This bulletin presents the offerings and requirements in effect at the time of publication, but is no guarantee that they will not be changed or revoked. However, adequate and reasonable notice will be given to students affected by any changes. This bulletin is not intended to state contractual terms and does not constitute a contract between the student and ETSU or Bill Gatton College of Pharmacy.

Family Educational Rights and Privacy Act

East Tennessee State University complies fully with the Family Educational Rights and Privacy Act of 1974, as amended. East Tennessee State University is fully in accord with the belief that educational and employment opportunities should be available to all eligible persons without regard to age, gender, color, race, religion, national origin, disability, veteran status, or sexual orientation.

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

The right to inspect and review the student's education records within 45 days of the day the university receives a request for access.

Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The university official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the university official to whom the request was submitted does not maintain the records, that official shall advise the student of the correct official to whom the request should be addressed.

The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.

Students may ask the university to amend a record that they believe is inaccurate or misleading. They should write the university 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 university decides not to amend the record as requested by the student, the university will notify the student of the decision and advise the student of his or 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.

The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the university has contracted (such as an attorney, auditor, or collection agent); 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 task. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Upon request, the university discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

The right to file a complaint with the U.S. Department of Education concerning alleged failures by East Tennessee State University to comply with the requirements of FERPA.

The name and address of the office that administers FERPA is:

Family Policy Compliance Office

U.S. Department of Education

400 Maryland Avenue, SW

Washington, DC 20202-4605

Directory Information

East Tennessee State University contracts the publication of a directory, which shows student names, addresses (e-mail, mailing, and campus box), major, and phone number. In addition, ETSU may release other directory information. Other directory information is defined as: enrollment status, dates of attendance, classification, previous institution(s) attended, awards, honors, photographs, degrees conferred (including dates), hometown and residency placement information, and sports participation information.

If students prefer not to have these items released, they must submit a written request to prevent disclosure of this data. A non-disclosure form is provided during orientation and is available through the College of Pharmacy Office of Student Affairs. The form must be submitted prior to the start of classes for the term in which the student desires the restriction to go into effect. A form submitted the last term of enrollment will remain in effect until the student re-enrolls.

Student Photos (Permission for Photos of Students)

The College and University provides information to various organizations about pharmacy students' accomplishments and activities during their enrollment and at the time of graduation, which may include the provision of photographs and other visual images of students. As a regular practice, photographs of students, faculty, staff, and visitors to campus are used in publications produced by the College and University for recruitment and general

information. Any student who does not wish to appear in any photos used for these purposes must notify the College of Pharmacy Office of Student Affairs prior to the start of classes for the term in which the student desires the restriction to go into effect. Please note that the restriction does not apply to the use of photographs taken of general scenes, events, or classes in session where groups of students may appear.

Campus Security Report

The East Tennessee State University strives to provide a safe and secure environment for the campus community. In order for individuals to make informed decisions about their personal safety, ETSU makes available to current and prospective students and employees the Annual Security and Fire Safety Report. This annual publication includes information on crime reporting procedures, policies, safety tips, prevention programs, and fire and crime statistics for the last three years. The report is available online at The Department of Public Safety website, where it can be downloaded for viewing or printing. Hard copies may also be obtained via US mail at no cost by calling Public Safety at (423) 439-6900, by writing to ETSU Dept. of Public Safety, Box 70646, Johnson City, TN 37614, or by emailing ORRJ@mail.etsu.edu.

Falsification of Credentials

According to T.C.A. Sec. 49-7-133, it is a Class A misdemeanor to misrepresent academic credentials. A person commits the offense of misrepresentation of academic credentials who, knowing that the statement is false and with the intent to secure employment at or admission to an institution of higher education in Tennessee, represents, orally or in writing that such person:

- (1) Has successfully completed the required coursework for and has been awarded one (1) or more degrees or diplomas from an accredited institution of higher education;
- (2) Has successfully completed the required coursework for and has been awarded one (1) or more degrees for diplomas from a particular institution of higher education; or
- (3) Has successfully completed the required coursework for and has been awarded one (1) or more degrees or diplomas in a particular field or specialty from an accredited institution of higher education.

Eligibility for admission shall be determined without regard to age, sex, color, race, religion, national origin, disability, or sexual orientation.

EAST TENNESSEE STATE UNIVERSITY

East Tennessee State University is governed by its Board of Trustees. Since opening in 1911 as a two-year normal school educating teachers, ETSU has grown into a major, diversified university. It serves more than 13,000 students, many of them from the Tri-Cities Tennessee/Virginia region and surrounding areas. Students from all 50 states and from numerous other countries also attend ETSU.

ETSU is comprised of 11 colleges and schools: College of Arts and Sciences, College of Business and Technology, College of Clinical and Rehabilitative Health Sciences, Claudius G. Clemmer College of Education, Honors College, James H. Quillen College of Medicine, College of Nursing, Bill Gatton College of Pharmacy, College of Public Health, School of Continuing Studies and Academic Outreach, and School of Graduate Studies.

Affirming a commitment to the fundamental values of higher education, ETSU presents programs of study that promote curiosity, stimulate thought, encourage reflection and the free interchange of ideas, and foster a genuine desire for learning. Undergraduate and graduate education at ETSU broaden the students' view of the world and encourage students to participate actively in creating a responsible, ethical society.

ETSU nurtures an educational environment which respects individuality and stimulates creativity. It expands educational opportunities for all who desire and need university preparation while maintaining a setting conducive to intellectual curiosity that produces an enjoyable campus life.

Throughout its history, ETSU has played a vital role in meeting the health care needs of the region. Programs in health education, public and environmental health, and nursing, some dating from the institution's earliest days, have evolved into formal colleges. The expansion of ETSU's Division of Health Sciences in the 1980s created still greater opportunities to serve the region, state, and nation through the development of a comprehensive academic health sciences center in Northeast Tennessee. The creation of the College of Pharmacy in 2005 further enhanced this aspect of the university's mission, as did the 2007 division of the College of Public and Allied Health into the College of Public Health (the first of its kind in Tennessee) and the College of Clinical and Rehabilitative Health Sciences.

The university's vision of education, scholarship, and service extends into the future, as outlined in "Turning Toward 2011: A Report by the Commission on the Future of ETSU." The more than 100 faculty, staff, community leaders, alumni, and students who spent two years envisioning what ETSU might be like on the way to its centennial in 2011 described a university that continues to build alliances beyond its walls, exerting strong leadership in health care and health promotion, economic development, education, environmental concerns, crime and violence issues, and public administration. In doing so, ETSU seeks to balance the innovations of the 21st century with the need to preserve the human contact that has characterized education at ETSU since 1911.

Accreditation

East Tennessee State University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, masters, specialist, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, telephone 404-679-4500, or Website: www.sacscoc.org with any question regarding the accreditation of East Tennessee State University.

Memberships

- The American Council on Education
- The American Association of State Colleges and Universities
- The Tennessee College Association
- The Council for Advancement and Support of Education
- The Council of Graduate Schools in the United States
- The Council of Southern Graduate Schools
- The Council on Undergraduate Research
- The Tennessee Conference of Graduate Schools
- Association of Academic Health Centers
- Oak Ridge Associated Universities
- Institute of International Education
- National Collegiate Athletic Association
- The Southern Conference

ETSU Vision Statement

Developing a world-class environment to enhance student success and improve the quality of life in the region and beyond.

ETSU Mission and Values (approved by Board of Trustees, 3/24/17)

ETSU provides a student-centered community of learning, reflecting high standards and promoting a balance of liberal arts and professional preparation, and continuous improvement. The university conducts a wide array of educational and research programs and clinical services including a comprehensive Academic Health Sciences Center. Education is the university's highest priority, and the institution is committed to increasing the level of educational attainment in the state and region based on core values where:

PEOPLE come first, are treated with dignity and respect, and are encouraged to achieve their full potential; **RELATIONSHIPS** are built on honesty, integrity, and trust; **DIVERSITY** of people and thought is respected; **EXCELLENCE** is achieved through teamwork, leadership, creativity, and a strong work ethic; **EFFICIENCY** is achieved through wise use of human and financial resources; and **COMMITMENT** to intellectual achievement is embraced.

ETSU endorses the value of liberal education and provides enriching experiences in honors education, student research and creative activity, study abroad, service learning, and community-based education.

ETSU honors and preserves the rich heritage of Southern Appalachia through distinctive education, research, and service programs and is actively engaged in regional stewardship.

ETSU affirms the contributions of diverse people, cultures, and thought to intellectual, social, and economic development.

ETSU offers students a total university experience that includes cultural and artistic programs, diverse student activities, a variety of residential opportunities, and outstanding recreational and intercollegiate athletic programs.

ETSU awards degrees in over one hundred baccalaureate, master, and doctoral programs, including distinctive interdisciplinary programs and distance education offerings that serve students from the region and beyond.

GATTON COLLEGE OF PHARMACY

The Gatton College of Pharmacy is an integral component of the Academic Health Sciences Center at ETSU which also includes J.H. Quillen College of Medicine, the College of Public Health, the College of Clinical and Rehabilitative Health Sciences and the College of Nursing. Gatton College of Pharmacy is physically located on the grounds of the J.H. Quillen Veterans Affairs Medical Center (Mountain Home) in Johnson City. The college of pharmacy's professional program, leading to a Doctor of Pharmacy Degree (PharmD), is designed to prepare pharmacists to work in a variety of professional arenas, with emphasis on rural and underserved communities.

History

The university along with community leaders had been investigating the feasibility of initiating a college of pharmacy for over a decade. Given the state's only college of pharmacy was almost 500 miles away, most students from this region chose to attend out-of-state public and private institutions for their pharmacy education. As a result, few returned to this area to practice. That fact, plus the lack of state funds for a second state-funded college of pharmacy, fueled the demand for pharmacists in this Southern Appalachian region.

In January 2004, a tuition-funded, rural-focused model was developed as a possible solution to this dilemma. Realizing that considerable private support would be necessary for the model to work, a steering committee led by the Vice President for Health Affairs and comprised of ETSU faculty and staff, pharmacy community leaders, and community leaders at-large began to develop and implement such a plan.

After extensive effort, approval was obtained from the Tennessee Board of Regents and the Tennessee Higher Education Commission in the summer of 2005. Governor Phil Bredesen lent his support to this effort with the challenge to raise \$5 million in 90 days and an additional \$2.5 million before the first class of students entered the program. The \$5 million was raised in 58 days, and the College of Pharmacy passed the \$7.5 million mark on April 3, 2006, with Governor Bredesen personally making the announcement at ETSU. Recognizing the value of a College of Pharmacy at ETSU, over 900 individuals and organizations contributed financially to this effort. With the support and energy from the people of this region, the College of Pharmacy became a reality as the inaugural class of students began studies January 2007.

On May 22 2008, the College of Pharmacy was named the Bill Gatton College of Pharmacy at East Tennessee State University in honor of Bill Gatton, a local philanthropist, whose generosity made the establishment of the ETSU pharmacy school possible.

May 8, 2010 marked the achievement of a major milestone for the College as the first graduates (66 students) were hooded and received their diplomas. Full accreditation was received June 2010.

Accreditation

East Tennessee State University Bill Gatton College of Pharmacy's Doctor of Pharmacy program is fully accredited by the Accreditation Council for Pharmacy Education (ACPE), 135 S. LaSalle Street, Suite 4100, Chicago, IL 60603, 312/664-3575, fax 312/664-4652, website www.acpe-accredit.org. The ACPE accredits Doctor of Pharmacy programs offered by Colleges and Schools of Pharmacy in the United States and selected non-US sites.

Membership

American Association of Colleges of Pharmacy

Diversity

The Gatton College of Pharmacy and East Tennessee State University strive to develop an environment where the value of diversity among students, faculty and staff is accepted, encouraged and embraced. Diversity encompasses differences in race, creed, color, sex, religion, age, national origin, disabilities, veteran status or sexual orientation. The individual characteristics, talents and contributions of all people are valued and recognized for the unique contribution they make to the college.

Vision

The vision of the Gatton College of Pharmacy is to become a recognized national leader of pharmacy education.

Mission

The mission of Gatton College of Pharmacy is to develop progressive, team-oriented pharmacists that improve healthcare, focusing on rural and underserved communities. The College accomplishes this mission by:

- Providing outstanding education with emphasis on interprofessional education
- Valuing research and scholarship to create a life-long curiosity and passion for learning
- Developing and delivering exceptional direct patient care
- Engaging and serving the university, community and profession

Values

The Gatton College of Pharmacy embraces the educational philosophy and values of East Tennessee State University and is committed to the following core values:

Academic Excellence

We strive to achieve excellence in teaching, scholarship, and service to the university, local, and professional communities.

Professionalism, Integrity, and Character

We aim to create an environment that instills professionalism, integrity, empathy, a high standard of ethical behavior, and the highest professional commitment to the patient, the community, and the employer.

A Caring Community

We endeavor to create a caring community characterized by mutual respect, patience, kindness, and generosity; and one that respects, values, and promotes the dignity and diversity of faculty and students.

A Culture of Service

We strive to create a culture that values and promotes service to our patients, school, community, and profession.

Life-long Learning

We pursue a passion for life-long learning and a commitment to personal and professional growth as we serve our patients, community, and profession.

Guiding Principles and Goals to Achieve the Mission

Improving Care Through Excellence in Scholarship

- Provide students with the knowledge, skills, judgment, professional attitudes, and values to deliver contemporary patient care in a changing healthcare environment;
- Promote the development of teaching excellence, innovation, continuous quality improvement, and creativity in the context of interdisciplinary patient-centered care;
- Develop and enhance students' skills in problem solving, critical thinking, and individual and group communication;
- Facilitate and encourage the development of mature, independent, and life-long learners in a diverse student body with different learning styles.

Improving Care Through Excellence in Scholarship

- Recognize, value, and promote scholarly inquiry and outcomes assessment, clear reasoning, and the application of evidence-based practices as a means of improving the health outcomes of patients, especially the care of a rural underserved population;
- Contribute to the advancement of the clinical and basic medical and pharmaceutical sciences through independent and collaborative research, presentation and publication;
- Embrace the scholarship of teaching to optimize educational effectiveness.

Improving Care Through Excellence in Clinical and Professional Service

- Provide and teach pharmacist-delivered patient care, including medication therapy management services, to further advance an evolving profession that benefits society today and in the future;
- Foster a culture of service to the community and profession;
- Advance healthier lifestyles through health promotion, preventive healthcare, and education of the public;
- Promote active student involvement in the profession, community service projects, and volunteer activities;
- Collaborate with the professional community to serve as an agent of positive change, advancing the level of pharmaceutical care practiced within the community, thereby improving healthcare and enriching the lives of patients in the region.

Improving Care Through Professional Development

- Support and mentor faculty in their pursuit of scholarly activity and service recognizing that these activities are essential for continued professional growth;
- Encourage a commitment to and passion for lifelong learning and develop and equip students for postgraduate training;
- Encourage students, faculty, and preceptors to grow as professionals and to optimize their skills and capabilities in providing excellent patient-centered care;
- Support continuing professional development of alumni thereby fostering a positive and continuing relationship with graduates.

Improving Care Through Interdisciplinary Collaboration

- Cultivate an educational environment of inter-professional teamwork and collaboration among students, faculty, staff and administration within the Division of Health Sciences;
- Partner with local practitioners, health-care facilities, organizations, and patients to maximize the professional and educational experiences of our students;
- Create an interdisciplinary and collaborative learning experience as a fundamental model that prepares students for collaborative practice and shared responsibility.

DOCTOR OF PHARMACY DEGREE PROGRAM

Academic Calendar

The Academic Calendar for the current year can be found on the web at http://www.etsu.edu/pharmacy/current_students/academic_calendar.php

Degree Offered

Gatton College of Pharmacy offers the Doctor of Pharmacy degree (PharmD). The PharmD degree¹ is intended to prepare pharmacists who will be able to:

- *provide patient-centered care*, through the ability to:
 - design, implement, monitor, evaluate, and adjust pharmacy care plans that are patient-specific; address health literacy, cultural diversity, and behavioral psychosocial issues; and are evidence-based
 - manage a successful patient-centered practice (including establishing, marketing, and being compensated for medication therapy management and patient care services rendered)
- *provide population-based care*, through the ability to develop and implement population-specific, evidence-based disease management programs and protocols based upon analysis of epidemiologic and pharmaco-economic data, medication-use criteria, medication use review, and risk-reduction strategies
- *manage human, physical, medical, informational, and technological resources*, through the ability to ensure efficient, cost-effective use of these resources in the provision of patient care
- *manage medication use systems*, through the ability to apply patient- and population-specific data, quality improvement strategies, medication safety and error reduction programs, and research processes to minimize drug misadventures and optimize patient outcomes; to participate in the development of drug use and health policy; and to help design pharmacy benefits
- *promote the availability of effective health and disease prevention services and health policy* through the ability to apply population-specific data, quality improvement strategies, informatics, and research processes to identify and solve public health problems and to help develop health policy

DiRected Educational Aspirations and Markers of Success (DREAMS)

Adopted by the Faculty Council on November 27, 2012

Consistent with the above, the Gatton College of Pharmacy curriculum prepares graduates to demonstrate the following professional competencies and outcomes, which emphasize good science,* self-directed lifelong learning,[†] and individualized training. Graduates are expected to apply learning to both the present practice of pharmacy and the advancement of the profession, serving as leaders and agents of change.¹ To this end, faculty members aspire to develop graduates that:

1. Display a mastery of fundamental knowledge and skills¹

¹ *Accreditation Standards and Key Elements for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree*. Adopted January 25, 2015. Accreditation Council for Pharmacy Education.

- 1.1. Demonstrate knowledge of and accept responsibility for knowledge of commonly used medications, formulations and drug products.¹
- 1.2. Apply principles of biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences to critically solve problems.^{1,5}
- 1.3. Utilize pharmaceutical and pharmacokinetics mathematics to perform accurate medication calculations.¹
- 1.4. Retrieve, analyze, and interpret the literature.^{1,2,3,5}
- 1.5. Evaluate the quality of basic science and clinical research evidence to appropriately apply study results to practice decisions.¹
- 1.6. Demonstrate competency in informatics and emerging technologies.^{1,5}
- 1.7. Compound drugs in appropriate dosage forms using appropriate safety measures.⁵
- 1.8. Identify physicochemical properties that affect drug solubility, stability, and pharmacokinetics.
- 1.9. Predict drug action based on physiological and biochemical concepts.

2. Demonstrate professional attitudes and values¹
 - 2.1. Carry out duties in accordance with legal, ethical, social, cultural, economic, and professional guidelines.^{1,2,3,5}
 - 2.2. Work with individuals of other health professions to maintain a climate of mutual respect and shared values.⁴
 - 2.3. Use the knowledge of one's own role and those of other professions.⁴
 - 2.4. Communicate with patients, families, communities, and other health professionals.^{1,2,4,5}
 - 2.5. Apply relationship-building values and the principles of team dynamics.⁴
 - 2.6. Maintain professional competence by identifying and analyzing emerging issues, products, and services.^{1,2,4,5}
 - 2.7. Reflect critically on personal skills and actions to make improvements, as necessary.³
 - 2.8. Accept and respond to constructive feedback.³

3. Provide excellent patient-centered care¹
 - 3.1. Identify and assess subjective and objective patient data to define health and medication related problems.^{1,3,5}
 - 3.2. Design, implement, monitor, evaluate, and adjust pharmacy care plans that are patient-specific and evidence-based.^{1,2,3,5}
 - 3.3. Provide patient care in cooperation with patients and other healthcare providers as part of an interprofessional health care team.^{1,2,3,4,5}
 - 3.4. Addresses health literacy, cultural diversity, and behavioral psychosocial issues when communicating with patients and when designing, evaluating, or modifying therapeutic plans.^{1,5}
 - 3.5. Counsel patients, caregivers, and other health care providers regarding care plans.^{1,5}
 - 3.6. Demonstrate accurate and appropriate documentation of pharmacy care activities.^{3,5}
 - 3.7. Apply knowledge, skills, attitudes, and values to manage a successful patient-centered practice.^{1,5}

4. Promote health improvement, wellness, and disease prevention^{1,3}
 - 4.1. Identify and mitigate public health problems.^{1,3,5}

- 4.2. Interpret epidemiologic data relevant to specific diseases and their management.^{3,5}
- 4.3. Interpret economic data relevant to treatment of disease.³
- 4.4. Develop and implement population-specific, evidence-based disease management programs and protocols.^{1,2,5}
- 5. Effectively manage health care resources^{1,3}
 - 5.1. Address the unique needs of rural and underserved communities.⁵
 - 5.2. Manage and use human, physical, financial, informational and technological resources in the provision of patient care.^{1,2,5}
 - 5.3. Provide high-quality, cost-effective healthcare.³
 - 5.4. Provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution.^{1,2,3,5}
 - 5.5. Identify and use risk reduction strategies to minimize medication errors.^{2,3,5}
 - 5.6. Assist patients and care givers to obtain their medications and related parapharmaceuticals in an affordable manner that meets their health care needs.¹
 - 5.7. Interpret and apply drug use policy and health policy.^{1,2,3,5}

Degree Requirements

The Doctor of Pharmacy degree is conferred by East Tennessee State University upon certification by the faculty that the student has successfully completed all requirements. All required courses, practice experiences, and elective courses applied towards the degree must be completed with a minimum passing grade of C. The student must complete the entirety of the of the curriculum within six successive academic years from initial enrollment. This time limit may be extended for interruption by military service where enrollment is resumed immediately upon release from service. Other exceptions to the time limit may be granted by the Dean for extenuating circumstances.

In addition to completing the prescribed curriculum and meeting the scholarship requirements of the program, students must have satisfied all financial obligations to the College or University in order to qualify for graduation and receipt of the degree.

*Good science implies having the following characteristics: evidence-based, logical, convincing, explanatory, honest, testable, and systematic¹

[†]Lifelong learning entails continuously building upon existing knowledge and skills throughout one's lifetime

¹Accreditation Council for Pharmacy Education. *Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree Version 2.0*. 2011.

²American Association of College of Pharmacy. *Center for the Advancement of Pharmaceutical Education Educational Outcomes*. 2004.

³American Association of College of Pharmacy. *Graduation Survey: Professional Competencies - Outcomes*. 2011.

⁴Interprofessional Education Collaborative. *Core Competencies for Interprofessional Collaborative Practice*. 2011.

⁵Gatton College of Pharmacy. *Student Learning Outcome Expectations for the Doctor of Pharmacy Program*. 2008.

Curriculum Structure

The Bill Gatton College of Pharmacy curriculum structure can be found on the web at http://www.etsu.edu/pharmacy/academic_programs/curriculum.php

Elective Courses

Students are required to complete four elective courses (totaling at least eight credit hours) with a minimum passing grade prior to beginning Advanced Pharmacy Practice Experiences. Only approved courses may be used to fulfill this requirement. External research/internship experiences may be utilized to meet requirements if approved by the Curriculum Committee.

Students are expected to enroll in electives as sequenced in the curriculum outline; however, requests for enrolling in electives out of sequence may be made. Students can enroll in only one elective in any one term unless expressly permitted to enroll in more. Such variations require approval by the Associate Dean for Academic Affairs (ADAA) and are considered on a case-by-case basis. Students may complete additional electives in excess of the requirements with written permission; however, these courses become part of the student's academic record and grades will be calculated in the student's GPA. Students should refer to the GCOP Student Handbook for complete information about scheduling electives.

Professional Experience Program (PEP)

Students participate in required Pharmacy Practice Experiences (PPEs) during all four years of the curriculum. Experiential education has two components, Introductory Pharmacy Practice Experience (IPPE) and Advanced Pharmacy Practice Experience (APPE). Both types of experiences are designed to give pharmacy students real world experience inside a pharmacy or pharmaceutical lab. A student will rotate through a number of experiences in order to become familiar with and understand the many different facets of the pharmacy field. The number of rotations and the scheduling of rotations vary based on student's academic year. Participation in experiential education courses requires students to be in compliance with all immunization, and background check requirements, as well as any site specific requirements.

Students should refer to the Appendix of the Student Handbook for policies and procedures governing the experiential education program. The Handbook can be found on the web at http://www.etsu.edu/pharmacy/documents/student_handbook_rev_8-7-17.pdf.

Articulated Joint Degree Programs

PharmD/Master of Business Administration degrees

Bill Gatton College of Pharmacy students can simultaneously pursue an MBA degree from the College of Business and Technology while completing the PharmD degree. The program is designed to provide students with a broader perspective on business that will strengthen a graduate's ability to engage in pharmacy management within a variety of health care settings. The joint degree program is structured such that students can complete both degrees within a four-year period of time (general curriculum structure below). Students complete MBA

courses at specified points in the PharmD curriculum and during the summer following the second and third years of pharmacy school.

<u>Year One</u>	<u>Year Two</u>
<ul style="list-style-type: none"> – All PharmD coursework -- Apply for admission to MBA program 	<ul style="list-style-type: none"> -- PharmD coursework -- 5 MBA classes (accelerated format) 2 count as PharmD electives
<u>Year Three</u>	<u>Year Four</u>
<ul style="list-style-type: none"> -- PharmD coursework -- 4 MBA classes (accelerated format) 2 count as PharmD electives 	<ul style="list-style-type: none"> -- PharmD Advanced Practice Experiences

PharmD/Master of Public Health degrees

Bill Gatton College of Pharmacy students can simultaneously pursue an MPH degree from the College of Public Health while completing the PharmD degree. The program is designed to provide students a broad perspective that could help solve health problems on a large scale and is an excellent choice for students interested in careers in public health leadership. Students enroll in MPH courses at specified points in the PharmD curriculum (general curriculum structure below). During the fourth year of the joint degree program, students will devote one full year of study as an MPH student within the College of Public Health before returning for their fifth and final year at the College of Pharmacy.

<u>Year One</u>	<u>Year Two</u>
<ul style="list-style-type: none"> – All PharmD coursework -- Apply for admission to MPH program 	<ul style="list-style-type: none"> -- PharmD coursework -- 1 core MPH class each semester (count as PharmD electives)
<u>Summer after Year Two</u>	
2 core MPH classes	
<u>Year Three</u>	<u>Year Four</u>
<ul style="list-style-type: none"> -- PharmD coursework -- 1 core MPH class each semester (count as PharmD electives) -- 2 APPE rotations in May & June after Year Three 	<ul style="list-style-type: none"> -- No PharmD coursework -- All MPH coursework in concentration (21 hours)
<u>Year Five</u>	
Complete remaining PharmD clinical rotations & MPH Fieldwork	

Contact the Office of Academic Affairs (423-439-6334 or copaa@etsu.edu) for information about the admission process and requirements for the joint degree programs.

ADMISSIONS

Admission to Bill Gatton College of Pharmacy at East Tennessee State University is based on a competitive selection process involving applicants who meet the minimum requirements for admission. The Admissions Committee endeavors to select for admission applicants who are the best qualified, with an emphasis on those who demonstrate a desire and propensity for rural pharmacy practice and an interest in rural health. Bill Gatton College of Pharmacy uses a rolling admission process that allows for interviews and final action on applications throughout the admission cycle. The College is committed to increasing the number of qualified pharmacists from currently underrepresented minority groups and from disadvantaged backgrounds. The school actively promotes and encourages applicants from these groups.

Pre-Pharmacy Studies

Pre-professional preparation should be in an area chosen strictly according to the interest of the individual student. A specific major or minor course of undergraduate study for entering students is not advocated. A well-rounded undergraduate education is highly desirable, and students are encouraged to pursue the undergraduate program of their choosing. In addition to acquiring specific knowledge, the pre-pharmacy student should acquire certain basic skills and aptitudes such as the ability to read with speed, comprehension, and retention; the ability to understand concepts and draw logical conclusions; the ability to adapt quickly to new and different circumstances; and the ability to communicate effectively in all circumstances. Evidence of these abilities is sought throughout the admission process. These skills and abilities are essential in becoming a practicing pharmacist and a self-directed, lifelong learner.

Course Prerequisites

Admission to the Doctor of Pharmacy degree program requires that applicants complete at least 61 semester hours of undergraduate courses as specified below. Courses must be from a U.S accredited college or university. The prerequisites provide the minimum academic background essential to pharmacy education. Applicants who exceed the minimum stated requirements are more competitive.

Prerequisite coursework must be completed by the end of First Summer Session/Summer Session 1 prior to entrance into pharmacy school. Exceptions may be granted. Applicants who are in the process of completing prerequisites at the time of application should note these on their PharmCAS application as in progress or planned courses. All prerequisite coursework must be completed with a grade of C- or higher.

Foreign coursework may only be considered in cases where the applicant has earned the equivalent of a baccalaureate degree (or higher) at an accredited institution. A foreign transcript evaluation report (FTEER) must be submitted through PharmCAS.

Courses¹	Semester Hours
General Biology and Lab ²	4
Microbiology and Lab ²	4
Biology Elective ²	3
General Chemistry and Lab ²	8
Organic Chemistry and Lab ²	8
General Physics and Lab ²	4
Calculus	3
Statistics	3
Economics	3
Composition (Any writing-intensive course in the English area is acceptable.)	3
Oral Communication	3
Additional Writing-Intensive Course or Oral Communication Course	3
Social Sciences, Behavioral Sciences, and/or Humanities Electives	9
General Elective (science course recommended)	3

¹ Applicants who will have earned a bachelor's degree by the end of the spring term immediately preceding enrollment are considered to have met the general education requirements and only have to meet math and science prerequisites.

² Course must count toward that major or a science degree

Use of Advanced Placement or CLEP Credit

Advanced placement credit, CLEP credit, or other nontraditional credit in required non-science courses awarded by a regionally accredited college or university may be utilized to satisfy academic prerequisites. Such credit may also be utilized to satisfy prerequisite science courses provided that applicants have taken additional courses in the same discipline. Prospective students should be aware that portions of the professional curriculum require solid skills in algebra and basic integral calculus, and those math skills, if not used, quickly diminish. As such, we strongly recommend that incoming students take appropriate steps to insure a high level of mathematical aptitude

Early Decision Program

The College encourages candidates to apply to the early decision admission program through the Pharmacy College Application Service (PharmCAS). This program allows applicants who are committed to attending Bill Gatton College of Pharmacy the opportunity to secure

an admissions acceptance early during the admissions cycle. Candidates choosing this program cannot apply to any other pharmacy school prior to receiving a decision and agree to attend Bill Gatton College of Pharmacy, if accepted.

The deadline to apply as an Early Decision applicant is set annually by PharmCAS but is typically the first Monday in September. Early Decision applicants are assured of receiving an admission decision in late October. Please note that Early Decision applicants are not given preference over regular decision applicants by the Admissions Committee.

Admission Eligibility

Applicants must be a U.S. citizen, possess a U.S. Permanent Resident Visa (Green Card), have been granted political asylum or refugee status to be eligible for admission, or be eligible for an International Student Visa. Proof of eligibility is required for non-U.S. citizens. Additionally, pursuant to Tennessee Public Chapter No. 1061-SB No. 1325 known as the Tennessee Eligibility Verification for Entitlements Act (TEVA) applicants claiming U.S. citizenship status may be required to provide proof upon matriculation.

Applying for Admission

Applicants will be considered for admission only after a complete admission file has been submitted to the Admissions Committee. A complete admissions file consists of a PharmCAS application and letters of reference. See below for detailed information regarding each of these items.

PharmCAS Application

Application is made using the Pharmacy College Application Service (PharmCAS) via their website, www.PharmCAS.org.

Pharmacy College Admission Test (PCAT)

The PCAT is not required.

Letters of Reference

Two letters of reference are required and must be submitted through PharmCAS. One letter must be from a science faculty member (natural sciences) who has taught the applicant or from the pre-health advising office at the applicant's academic institution. This letter should address the applicant's academic performance and academic potential as a future Student Pharmacist. The second letter may be from a source of the applicant's choosing; however, a letter from a pharmacist or other source who can attest to the applicant's potential as a future health care professional is highly recommended. Letters from the following evaluators will not be counted toward the two letters of reference: family members, clergy, co-worker, friend, and politician.

Interview

An in-person interview with members of the Admissions Committee is required. International applicants may be given the option of an in-person or an online interview. Only selected applicants will be invited to interview (all related expenses are the sole responsibility of the applicant). An invitation to interview does not guarantee admission or

imply any specific action on the part of the Admissions Committee. Interview dates are scheduled directly with the applicant by the Admissions Office. When the interview date is confirmed, information will be sent to the applicant regarding local overnight housing options. Travel arrangements are the responsibility of the applicant.

Class Reservation Deposit

Bill Gatton College of Pharmacy follows the **AACP Cooperative Admissions Guidelines**. Upon notification of acceptance to Bill Gatton College of Pharmacy, the applicant will be required to pay a **non-refundable class reservation deposit of \$200**.

Deferred Matriculation

Accepted applicants may request deferred entrance into Bill Gatton College of Pharmacy until the next class for previously unforeseen circumstances. In order to request deferred matriculation, the applicant must submit a written request explaining why a later matriculation is desired. The applicant, if approved for deferment, will be required to sign a contract agreeing to comply with specific conditions. Requests for deferred matriculation must be made in writing no later than June 30 immediately preceding expected matriculation.

Application Deadlines

The application deadlines for the current year can be found on the web at http://www.etsu.edu/pharmacy/documents/gcop_admissions_info_2017-2018_revised7_24_17.pdf

Selection Criteria

The Admissions Committee evaluates applicants on the basis of demonstrated academic achievement, letters of reference, pertinent extracurricular activities, evidence of non-scholastic accomplishments, evidence of strong knowledge and understanding of the profession, and demonstrated motivation for the study and practice of pharmacy consistent with the mission of Bill Gatton College of Pharmacy. Criteria for admission are integrity, willingness and ability to assume responsibility, high scholastic achievement, maturity, intellectual curiosity, and sound motivation.

Academic Considerations

In evaluating the applicant's coursework, the Admissions Committee examines the time frame and difficulty of the pre-pharmacy course schedule, the academic record, and extracurricular activities (particularly activities such as concurrent employment, collegiate athletics, and philanthropic/service activities) as an indication of the potential to succeed in the academically rigorous pharmacy curriculum.

Applicants are expected to possess a solid academic foundation, particularly in the sciences and mathematics. Applicants who have taken prerequisite coursework more than 10 years prior to the application deadline should consult with the Admissions Office.

Experience

Applicants are expected to have a clear understanding of the pharmacy profession. Each application is examined for evidence of an applicant's firsthand exposure to health care as an

indication of the applicant's motivation and that the applicant is familiar with the realities of pharmacy as a career. Applicants without pharmacy work experience should consider volunteering, shadowing a pharmacist, or extensively researching the profession prior to applying for admission.

Residency

Bill Gatton College of Pharmacy gives preference to applicants who are residents of Tennessee and residents of our contiguous Appalachian service area who are interested in our emphasis on the practice of rural pharmacy. Because Bill Gatton College of Pharmacy is a tuition-funded program, tuition is the same for all students regardless of residency.

Reconsideration of Admissions Committee Decision

The Admissions Committee makes every effort to consider all available information in making admissions decisions. It is the policy of the College that it will not review or reconsider any admissions decision unless significant new information which was not available at the time of the original decision is discovered. The College reserves the sole right to determine the significance of any new information presented.

Technical Standards for Admission and Retention

Pharmacy education requires that the accumulation of scientific knowledge be accompanied by the simultaneous acquisition of professional skills. PharmD graduates must have the knowledge and skills to function in a broad variety of clinical situations and to render a wide spectrum of patient care.

The Admissions Committee considers any applicant demonstrating the ability to perform or learn to perform the skills listed below. These skills and abilities are assessed during the interview and throughout the PharmD program. Students must possess the scholastic, physical and emotional capacities to meet the full requirements of the school's curriculum. These standards describe the essential functions students must demonstrate in order to fulfill the requirements of a general pharmacy education, and thus are prerequisites for entrance to and continuation at Bill Gatton College of Pharmacy. The Admissions Committee asserts that the following minimum technical standards must be present in prospective candidates and students continuing in the program.

Technological compensation can be made for some disabilities in certain areas, but a candidate should be able to perform in an independent manner. Bill Gatton College of Pharmacy, in conjunction with ETSU Office of Disability Services and in compliance with Section 504 of the 1973 Vocational Rehabilitation Act and the Americans with Disabilities Act of 1990, will make appropriate accommodations to facilitate enrollment and program participation of qualified individuals with temporary or permanent disabilities. It is the student's responsibility to notify ETSU Office of Disability Services in a timely manner to determine if he or she is eligible to receive accommodations.

Observation

Candidates should be able to use visual and other sensory modalities to observe demonstrations and experiments in the class-based setting and to make observations in

practice-based activities. They should be able to observe a patient accurately. They must be able to note and interpret verbal and non-verbal communication cues displayed by the patient.

Communication

Effective communication skills include the ability to ask questions and to thoughtfully receive, record, and disseminate information. Candidates should be able to employ speech, reading, writing, and computer literacy skills to communicate effectively in the English language with patients, caregivers, faculty and staff, peers, and all members of the healthcare team.

Sensory and Motor

Candidates should have functional use of the senses of equilibrium, smell, and taste, as well as sufficient motor function (gross and fine) and coordination to execute movements required to carry out functions necessary to the practice of pharmacy. They must also have somatic sensation and the functional use of the senses of vision and hearing; sufficient exteroceptive sense (touch, pain, and temperature); and sufficient proprioceptive sense (position, pressure, movement, stereognosis, vibratory).

Conceptual, Integrative, and Quantitative

Candidates' intellectual skills and learning techniques must allow them to complete a rigorous and complex didactic and experiential curriculum. They must be able to learn through a variety of modalities including, but not limited to, classroom instruction, small group activities, individual study, preparation and presentation of reports, and use of computer technology. Candidates must be able to consistently, quickly, and accurately integrate information regarding patient assessment and therapeutic planning, as appropriate for each stage of their education. They must be able to convey this information in a manner and speed appropriate to the situation. When appropriate, they must be able to identify and communicate the limits of their knowledge to others and be able to recognize when the limits of their knowledge indicate that further study or investigation is necessary before participating in decision-making.

Behavioral and Social

Candidates must possess the emotional and mental health required for full utilization of intellectual abilities. They must cultivate and maintain a professional demeanor that is able to tolerate workloads that are physically, mentally, and emotionally taxing, and to function effectively under stress or with distractions. They must exercise good judgment and maintain professional ethical standards. Candidates must possess compassion, integrity, interpersonal skills, and motivation to excel in the practice of pharmacy. They must be able to modify their behavior in response to constructive criticism.

Transfer Applicants

Students desiring to transfer into the professional program from another ACPE accredited college of pharmacy will be evaluated on an individual basis; however, transfer admission is contingent upon space availability. Transfer applicants must meet the same requirements as a first-time PharmD applicant. Additionally, transfer applicants must be in good standing

with (i.e., eligible to return to the pharmacy school previously attended) and are expected to be academically competitive.

Transfer applicants apply directly to Bill Gatton College of Pharmacy by completing the transfer application (found on the web at https://www.etsu.edu/pharmacy/prospective_students/transfer_applicants.php). Transfer applicants are required to submit an official transcript from all post-secondary institutions attended and letters of reference as specified on the application. If the transfer applicant is determined to be qualified for admission, a personal interview will be arranged. Applicants are also required to submit course syllabi for all pharmacy school courses completed for which credit is desired.

Transfer credit awarded and academic classification are determined based upon review of the transcripts and syllabi. Transfer students are required to complete at a minimum the last two years of the curriculum in order to receive the PharmD degree from Bill Gatton College of Pharmacy.

Interested applicants are encouraged to contact the Office of Student Affairs prior to applying.

Matriculation Requirements for Entering Students

Criminal Background Checks

Bill Gatton College of Pharmacy is committed to providing the public with well-trained pharmacists who possess the traits of high moral character and standards. Within Tennessee and nationally, due to state legislative and accreditation requirements, many healthcare entities require all people working in their settings to submit to a Background Check (BC). These institutions may require individuals training to become healthcare practitioners to undergo a BC before participating in any educational/patient care activities at their sites. Additionally, many states require a BC for all individuals seeking a license to practice healthcare within the state.

In light of the foregoing, the College has concluded that it is in the best interest of the College, our partner institutions, patients, and students for the College to determine at the outset if students seeking to complete the PharmD pose a potential risk, and whether such students meet eligibility requirements to participate in patient care activities at affiliated health care institutions by requiring all accepted applicants to undergo a BC as a condition of initial enrollment. This check shall be completed in a usual manner utilizing the services of recognized background screening company selected by the College. Enrollment is contingent upon satisfactory evaluation of the results of the BC. Results of the BC may also be released to affiliated institutions that require this information for student participation in patient care activities.

A letter from the College indicating a conditional acceptance will include notice of the BC requirement. Conditionally accepted applicants are required to cooperate completely with the College, or other authorized/approved investigative agency in granting permission/authorization for the BC to be completed in a timely manner. All costs associated with the

BC are the responsibility of the student and shall be paid directly to the vendor.

If an issue that may preclude a student's enrollment or participation in academic activities is identified, the case will be considered by an administrative subcommittee of the College, which shall evaluate the information relative to the finding and make a recommendation regarding the individual's suitability for enrollment. The recommendation will be forwarded to the Dean of the College of Pharmacy for a final decision.

Health and Immunization

As a prerequisite for enrollment, Bill Gatton College of Pharmacy students are required to demonstrate receipt of appropriate immunizations and/or testing for protection against exposure to certain infectious diseases as detailed below. Acceptable documentation must be submitted to the Office of Student Affairs by the specified deadline prior to initial matriculation. Failure to comply may result in the student not being allowed to enroll or permitted to participate in practice experiences.

Measles, Mumps, Rubella (MMR): Proof of immunity to measles (rubeola), mumps and rubella is required of all students through the documentation of receipt of two MMR vaccines. The first dose must have been given on or after the first birthday. MMR vaccinations must be given at least 30 days apart. Alternately, the student may prove immunity through documentation of blood serum titer indicating immunity.

Hepatitis B: Proof of immunity against hepatitis B is required of all students. Students are required to complete the vaccination series which consists of three injections given at recommended intervals. Additionally, students are required to obtain a blood serum titer test that demonstrates the student has developed an adequate level of antibody protection to indicate immunity. The titer should be received 1-2 months after completing the series of three injections.

If the hepatitis B titer is negative following completion of the initial series of three injections, the student will be required to repeat the series and have a repeat titer drawn. If the titer remains negative, the student will be required to receive appropriate clinical consultation.

Tetanus-Diphtheria: A current tetanus-diphtheria booster is required for all students. Students must provide documentation of receipt of a booster vaccine within 10 years of their expected graduation date. Effective October 2005, the CDC recommends administration of the TDAP in place of Td to promote protection against pertussis.

Varicella (chickenpox): Consistent with state law, students must demonstrate immunity to varicella through documentation of receipt of the varicella vaccination series or documentation of a blood serum titer indicating immunity.

Tuberculin (TB) Screening: Annual TB screenings are required while the student remains enrolled. The first screening should occur no earlier than June 1 of the year prior to initial enrollment in the College. If a student receives a positive test or has a history of testing positive, he or she will be required to provide documentation of a chest x-ray and the results thereof, including the recommendation and outcome regarding any therapy.

Acknowledgment of Information about Infectious Diseases: In accordance with legislation of the General Assembly, all students, upon initial enrollment in a postsecondary education institution, shall be informed of the risk factors and dangers of certain infectious diseases. Students are required to complete and sign a form that includes detailed information about hepatitis B (HBV) and meningococcal meningitis.

Acceptable Documentation: All documentation submitted in response to the above requirements must include the date of each immunization and/or titer as well as the results of the titer. Acceptable documentation may include a statement or progress notes from a healthcare provider; copy of immunization record; or copy of laboratory reports, as appropriate.

Transcripts

Entering students are required to submit an official transcript from ALL colleges or universities attended to the Admissions and Records Office directly from the institution. Transcripts marked issued to student will not be accepted without expressly given permission. Transcripts for courses in which the student is enrolled during the summer prior to matriculation should be sent after the summer grade and/or degree is posted.

Basic Life Support Certification

Student pharmacists are required to be certified in an approved basic life support (BLS) training program, and to maintain certification throughout their entire pharmacy education program. All trainings are at the expense of the individual student. Documentation of compliance must be submitted to the Office of Student Affairs by the specified deadline prior to initial matriculation and at the appropriate interval subsequent to enrollment. It is the student's responsibility to ensure documentation is submitted in a timely manner.

Insurance Requirements

Professional Liability Insurance

All PharmD students are required to carry professional liability insurance. Low cost coverage specifically designed for pharmacy students is available through Pharmacists Mutual Insurance Company. The premium is charged to the student's account upon registration.

Medical Insurance

Bill Gatton College of Pharmacy requires all students to carry and maintain health insurance while enrolled. Students annually must provide proof of insurance.

Required Trainings

Immunization Certification

Students are required to complete the American Pharmacists Association (APhA) Immunization Certification training during the first professional year. This certification consists of a self-study exam, didactic lectures, a final exam and a practicum. Universal precautions are observed during the practical portion of the certification. Students will participate as both the immunizer and the patient during the practicum portion of the training. The certification will be valid as long as BLS certification is maintained.

Occupational Safety and Hazard Administration Certification

Students are required to complete occupational safety and health (OSHA) training to prepare them for participation in PPEs. The training must be completed before a student will be allowed to begin his/her introductory PPE. Annual training is required. There is no cost to the student for the training.

Sexual Harassment Training

Consistent with the university's mission and vision, the Gatton College of Pharmacy is committed to treating people with dignity and respect. This ideal involves all employees and students as we strive to work together in an atmosphere conducive to building relationships on honesty, integrity, and trust. Toward this end, student pharmacists will be required to complete training in Preventing Sexual Harassment upon initial enrollment in the College. The training is complete online as a self-study program. Students are required to submit a copy of the certificate of completion to the Office of Student Affairs.

Computing Requirements

Laptop Computer

All student pharmacists are required to have a personal laptop computer appropriately configured to be compatible with ETSU network facilities including Desire2Learn (D2L) and ExamSoft. D2L is a web-based teaching and learning tool utilized by faculty for course delivery. ExamSoft is testing software utilized by the college to administer in-class examinations. A laptop computer provides maximal mobility and utility in accessing computing technology. Wireless access to the ETSU network is available in all areas of the college and the large classrooms have wired access.

Laptop computers are necessary for retrieving course materials, including syllabi and handouts; accessing online resources (e.g., textbooks); retrieving primary literature and conducting internet searches; taking notes in class, if permitted by the instructor; taking in-class exams and quizzes as required; and other projects and assignments.

Computer standards can be found on the web at

http://www.etsu.edu/pharmacy/documents/enrolled_students/computer_requirements_2017.pdf. It is the student's responsibility to ensure their computer meets these requirements.

Students are expected to provide their own printing hardware and supplies. Other devices may suffice for many tasks, but the student is responsible for having personal and functional computing equipment for use with any in-class quiz, exam, or exercise.

SmartPhone

Fourth-year students are required to have a SmartPhone or similar device for use during APPEs. The College does not specify the type of device you must purchase; however, the device must be able to run Lexi-Comp drug and clinical information software, the required textbook for the fourth-year. Additionally, it is recommended that students purchase a device that is compatible with the E*Value Advanced Informatics system utilized by the Office of Experiential Education. This software provides students with the ability to access personal and program information pertinent to their practice experience. To assist students, the Medical Library has formulated a list of buying recommendations. The Library will also assist students in configuring their devices.

EXPENSES AND FINANCIAL AID

Annual Cost of Attendance

The Gatton College of Pharmacy is a privately funded partnership between the regional community at large and East Tennessee State University under which the College receives no funding from the State of Tennessee. This results in tuition rates consistent with private colleges of pharmacy.

Current tuition and fees can be found on the web at

http://www.etsu.edu/pharmacy/administration/financial_aid/p1_budget.php

Financial Aid

Pharmacy students are served by the College's Financial Aid Office. The office makes every effort to assist pharmacy students in securing the financial resources. Financial aid is awarded on the basis of demonstrated need, which is the annual cost of attendance less the expected family contribution as calculated by the federal government from information provided on the Free Application for Federal Student Aid (FAFSA).

Financial aid available to student pharmacists consists of federally sponsored programs and limited scholarships. Students may only receive aid up to the cost of attendance (tuition, fees, living expenses, transportation, and personal and miscellaneous expenses). Student budgets are based on the expected educational expenses of the student; as such it is increased only under extenuating circumstances.

Students must submit a FAFSA and indicate the Gatton College of Pharmacy as the college of attendance (Federal School Code E01254) in order to apply for federal aid programs. Students eligible for the Tennessee Educational Lottery Scholarships should submit the FAFSA no later than April 1 of each year in order to ensure consideration for the lottery scholarship. The FAFSA may be completed online at <http://www.fafsa.ed.gov/>.

Student pharmacists are enrolled in a qualifying health profession program. As such, all students are considered independent professional-level students and are therefore eligible for higher annual and aggregate loan amounts under the Federal Direct Lending Program. The professional classification also allows students to be considered "independent" from their parents, eliminating the requirement to report parental income on the FAFSA. Professional students are ineligible for federal and state grants (e.g., the Pell Grant).

The U.S. Department of Education has the authority to select students for verification of FAFSA information. Selected students are required to complete the verification process and provide acceptable documentation to Financial Aid, as allowed under 34 CFR 668.57.

Questions regarding financial aid for student pharmacists should be directed to the Financial Aid Office, which may be reached by email (johnsonaa@etsu.edu or kincera@etsu.edu) or by phone (423-439-6338) or in-person (VA Building 7, Room 216)

Satisfactory Academic Progress for Financial Aid

Federal regulations require Gatton College of Pharmacy to establish standards for monitoring whether students maintain satisfactory progress (SAP) toward their degree in order to receive aid under federal financial assistance programs authorized by Title IV of the Higher Education Act. Determination of whether a student is making satisfactory progress, be placed on probation, or be suspended for federal financial aid purposes is made by the Associate Director of Financial Aid based on specific criteria, outlined in the Student Handbook (http://www.etsu.edu/pharmacy/documents/student_handbook_rev_8-7-17.pdf). These criteria pertain to federal financial aid only and should not be confused with the standards employed by the Academic Progression Committee (APC) to evaluate students' continued enrollment in the PharmD program.

Grants, Scholarships, and Awards

Bill Gatton College of Pharmacy continues to explore the creation of grants, scholarships and awards. The most current information is maintained by the Office of Financial Aid and is available on the web at www.etsu.edu/pharmacy.

Veterans Education Benefits

The College of Pharmacy is approved for the training of veterans and other eligible persons under education benefit programs of the U.S. Department of Veterans Affairs (USDVA). The University Veterans' Affairs Office, which coordinates the delivery of military-related educational benefits of the USDVA to eligible service members, veterans, and certain disabled veterans dependents, can provide information and application assistance to student pharmacists who might be eligible for receipt of such assistance. Veterans Affairs is located in 101A Burgin E. Dossett Hall (administration building) on the main campus and can be contacted at 423.439.6819 or va@etsu.edu.

Primary entitlement programs administered by the Veterans Affairs office are:

- Montgomery GI Bill – Active Duty (MGIB-AD) Educational Assistance Program [Authority: Chapter 30, Title 38 *United States Code (USC)*];
- Vocational Rehabilitation & Employment (VR&E) Program [Authority: Chapter 31, Title 38 *USC*];
- Reserve Educational Assistance Program (REAP) [Authority: Chapter 1607, Title 10 *USC*];
- Montgomery GI Bill – Selected Reserve (MGIB-SR) Educational Assistance Program [Authority: Chapter 1606, Title 10 *USC*];
- Survivors' & Dependents' Educational Assistance (DEA) Program [Authority: Chapter 35, Title 38 *USC*];
- Veterans' Work-Study Allowance Program [Authority: Chapters 30, 31, 35 of Title 38 & Chapters 1606 & 1607 of Title 10 *USC*];
- Veterans' Tuition & Fee Deferment Program [Authority: § 49-7-104 *Tennessee Code Annotated (TCA)*]

Information on the above federal programs, except VR&E and state programs, may be found at <https://benefits.va.gov/gibill/>. VR&E information can be found at www.vba.va.gov/bln/vre/.

Tuition and Payment

All students attending classes at ETSU must pay tuition and fees. Students in the Doctor of Pharmacy program at the Gatton College of Pharmacy attend on a full-time degree seeking status and pay the prevailing tuition and fees as established by the College for the current academic year. Tuition is pro-rated in the rare cases where a student is enrolled as a part-time student (fewer than 12 credit hours).

Students who have loans, grants, scholarships, state or federal vocational rehabilitation, or any other type of financial aid covering all fees will have these funds applied to their student fees; all others should make payment through the Bursar's Office by cash, check or credit card.

The Bursar's Office does not send bills to students for their tuition and fees. The best way for students to know their current financial obligation for the term is by viewing their account through GoldLink. Students who need a printed copy of their account statement may print a statement from GoldLink.

Tuition Refund Policy

Refunds for maintenance fees, tuition, and debt service fees are determined as follows.

Change of a student's status which may permit a refund

- Change in schedule which results in reclassification from full-time to part-time status;
- Change in a part-time student's schedule which results in a class load of fewer hours.

Situations which may permit a refund

- Dropping a course or courses;
- Withdrawing from the institution;
- Cancellation of a class by the institution;
- Death of the student.

Refund Procedures

The refund amount for students not receiving Title IV aid and for those students who are not first-time students receiving Title IV aid is based upon the stated policy listed below.

- Refunds are defined as the portion of maintenance and/or tuition and university housing charges due as a rebate when a student withdraws or is expelled from the university. The amount of the refund is determined according to the schedule below.
- For first-, second-, and third-year students, 75 percent of maintenance and other required fees will be refunded for drops or withdrawals within 14 calendar days beginning with and including the first official day of classes or within a proportioned period for short-term courses. Twenty-five percent of maintenance and other required fees will be refunded following the 14th calendar day through the expiration of one-fourth of the time covered by the term. No refund will be made thereafter.

These refund procedures are also applicable to dormitory rent. For fourth-year students, refunds will be based on the portion of pharmacy practice experiences completed during each semester.

- One hundred percent of fees will be refunded for classes canceled by the institution and for drops or withdrawals prior to the first day of classes for the regular academic terms. One hundred percent of fees will be refunded in case of student's death.
- Students may request a full refund in cases of medical emergency.

Return of Title IV Federal Student Aid

This requirement applies to the student ONLY if the student receives federal student aid, AND the student withdraws prior to completing 60 percent of the period for which the aid was provided.

- The federal law requires federal aid recipients to “earn” the aid they receive by staying enrolled in college. Students who withdraw prior to completing 60 percent of the semester for which they received federal student aid may be required to return some or all of the aid they were awarded.
- The law assumes that the student used the Title IV student aid to pay his/her institutional charges—tuition, fees, dorm room, and board; thus, if the student withdraws prior to completing 60 percent of the semester for which aid was awarded, a pro-rata amount of that aid must be returned to the federal government.
- The university will restore to the appropriate federal fund source a proportional share of the institutional charges that the student paid. In general, the effect of the “return of Title IV aid” by the institution will be to reduce the student's outstanding loan balance. If the amount returned by the university is not enough to repay the entire “unearned” amount of student aid according to the length of enrollment, the student will be required to return portions of the federal student aid received to pay non-institutional charges.
- Amounts that must be returned to federal aid sources (whether by the university or by the student) will first be applied to federal loans. With respect to any amount the student owes after the university has returned its share, the student will be permitted to repay loans based on the original terms of the loan agreement. In the case of “unearned” portions of federal grants or scholarships, the student will be expected to pay 50 percent of the “unearned” portion immediately.
- Any refund due to the student from the University for payment to cover institutional charges will first be applied to obligations to return “unearned” aid. Thus, portions of institutional refunds may be applied on the student's behalf to outstanding Stafford or Perkins loans or to the federal portions of grants or scholarships and not actually refunded to the student. (This policy is based on 34 CFR, Section 668.22 of Title IV of the Higher Education Act of 1965, as amended.)

Tuition for Repeat Courses

Students failing to progress normally due to academic reasons shall pay tuition at the prevailing rate when repeating courses in order to remove an academic deficiency.

Occasionally, the Academic Progression Committee (APC) may require students who have experienced academic difficulty to repeat courses previously passed if it is deemed to be in

the student's educational and professional interest. In such cases, a student shall not be charged tuition for said course(s).

ACADEMIC POLICIES

Office of Academic Affairs

The Office of Academic Affairs is responsible for all academic aspects of the PharmD program. This includes curriculum issues, notification of students achieving Dean's List, compilation, distribution and oversight of the class and examination schedule, and implementation of recommendations from the Academic Progression Committee. The office is located in Room 204, Building 7 on the J.H. Quillen Veterans Affairs Medical Center campus (VA). Students can also reach the office by calling 423-439-6334.

Academic Performance

Students are required to pass all courses applicable towards the PharmD degree with a minimum grade of "C" during each semester of enrollment. Students failing to meet this standard shall be subject to the action of the Academic Progression Committee (APC).

Registration for Classes

Students enrolled in the Gatton College of Pharmacy are registered for a pre-determined set of courses each semester during the didactic years (P1-P3) of the curriculum by the Admissions and Records Office. Elective options exist within the P2 and P3 year. Courses during the didactic portion of the curriculum are offered once a year, and latitude within the curriculum is not allowed (i.e., reduced class schedule, or withdrawing from a semester) except in cases of extenuating circumstances and with approval. Students have the opportunity to request specific practice experiences during the Advanced Pharmacy Practice Experience year (P4) according to location and scheduling preferences.

Grading System

The College of Pharmacy utilizes a standard letter grading system of A, B, C, D and F. Faculty for an individual course may elect to augment the grading system through use of the plus/minus system; however, the grades of C-, D+, and D- are not used. The method by which letter grades are assigned is determined by the course coordinator for each course and is included in the course syllabus. Once the method for assigning letter grades is in place for a course during a given semester, it cannot be made more stringent; however, the grading scale can be altered provided the scale is not made more difficult. Grades of D and F are not considered passing grades and require that a student receiving such grades remediate the course (see Academic Progression policy for definition of remediation).

The GPA is the weighted average of quality points earned relative to the number of credit hours attempted on a 4.000 scale. To calculate a GPA, the point value of the grade received in a course (see below) is multiplied by the number of credit hours the course is worth to determine the quality points for a course. The sum of quality points earned is then divided by the sum of credit hours attempted.

Letter grade point-values are as follows.

A	4.000	B+	3.300	C+	2.300	D	1.000
A-	3.700	B	3.000	C	2.000	F	0.000
B+	3.300	B-	2.700				

The GPA is calculated utilizing grades received in all courses attempted. Class rank based upon GPA is determined at the end of each semester, and is used for internal purposes only.

Other grades utilized by the College of Pharmacy are P (pass), I (incomplete) and W (withdraw). A grade of I is a temporary grade that may be assigned in cases in which a student, for acceptable reasons, is unable to complete all the requirements of a course. A student must make arrangements to complete the course within twelve months or the grade of I automatically becomes an F. A grade of W is assigned in cases in which a student has been granted permission by the Office of Academic Affairs to withdraw from a course according to the following. A student approved to withdraw from a course up to one-quarter of the course's duration will receive no penalty (i.e., no record of enrollment). Approved withdrawals occurring after one-quarter of the course's duration will result in a grade of W. Grades of P, I, and W carry no quality points and have no bearing on the GPA.

Grading symbols of + and * are also utilized. A "+" symbol indicates that a course continued beyond the current semester. An "*" symbol indicates that additional work was required by a student to obtain the specified course grade.

Grading policies apply to elective courses taken outside of the College of Pharmacy.

Grade Reports

Grades are available to students online via [*GoldLink*](#), the University's student information system. Academic departments retain grade documentation for a period of one year. Student concerns regarding academic records will only be addressed within one academic year from the date when the grades in question were posted.

Academic Honors

Dean's List

The Academic Affairs office will publish an honor roll each semester (Dean's List), consisting of students who demonstrated academic excellence by achieving a 3.5 GPA or better (with no grade below a B-) while enrolled full-time in the Gatton College of Pharmacy with at least twelve hours taken for a letter grade. For each semester in which this is accomplished, the student will receive a letter of recognition signed by the Dean. The student's name may also be published in the College newsletter or other publications.

Graduation Honors

The Gatton College of Pharmacy confers three academic distinctions at graduation which will appear on student diplomas:

Summa Cum Laude - students graduating with a pharmacy GPA of 3.900 to 4.000

Magna Cum Laude - students graduating with a pharmacy GPA of 3.750 to 3.899

Cum Laude - students graduating with a pharmacy GPA of 3.500 to 3.749

Grade Appeal Process

The grade appeal process affords students the opportunity to pursue a formal course of action to dispute a final course grade. This process does not apply to erroneous grades that result from mistakes in transcription, data entry, simple calculations or other unintentional causes. Changes of erroneous grades are handled quickly and informally, without the need for a grade appeal.

A student may appeal a final course grade if the student has evidence that the grade was assigned in a malicious, capricious, or arbitrary manner. The grade appeal process is outlined in Gatton College of Pharmacy Student Handbook, available online at http://www.etsu.edu/pharmacy/current_students/handbook.php. Students wishing to appeal a grade must begin the process within 21 days of when the final course grade is reported to the registrar. Note that the timeframe may be adjusted due to extenuating circumstances, such as university closings or holidays, at the discretion of College of Pharmacy administration.

Academic Progression Committee

The Academic Progression Committee (APC), in consultation with the Office of Academic Affairs, is charged with monitoring students' performance during each semester and progress throughout the curriculum. The APC acts on behalf of the faculty as an advocate for student learning, faculty teaching and academic integrity. The committee serves to mediate and facilitate student remediation and retention issues, within the boundaries of academic standards. The emphasis is on learning, understanding and applying the material and skills that are taught throughout the curriculum. The APC becomes involved in academic issues when a student's academic performance falls below the level needed for the successful completion of one or more courses and makes decisions regarding student's retention and progression in the program. The APC Policy, including the composition and function of the APC, is detailed in the Gatton College of Pharmacy Student Handbook found on the web at http://www.etsu.edu/pharmacy/current_students/handbook.php.

Course Credit and Student Compensation Policy

Students on pharmacy practice experiences may **not** be paid for their activities by the site to which they are assigned. This is an accreditation standard and **cannot** be waived. Students may receive housing, meal and travel allowances from the experiential site for off-campus educational experiences.

Students who work on research projects with faculty or in summer internship experiences with off-campus pharmaceutical companies, regulatory agencies or professional societies/associations, may receive either Independent Study course credit or payment for their work, **but not both**. Further information about the credit and compensation policy can be found in the Gatton College of Pharmacy Student Handbook found at http://www.etsu.edu/pharmacy/current_students/handbook.php.

STUDENT SERVICES AND RESOURCES

Office of Student Affairs

The Office of Student Affairs coordinates a number of services for students, including academic advising, financial aid, and assistance with personal issues. The office also provides support for the College's student organizations and coordinates special events and programming for students. Information about pertinent services and programs is detailed below. Student Affairs is located in Room 212, Building 7 on the J.H. Quillen VA Medical Center and may be reached at 423-439-6338.

Faculty Mentors

Pharmacy students are assigned a faculty mentor upon matriculation. This individual serves as a student's primary academic advisor for the full four years unless a student requests a change in advisor. The role of the mentor is to serve as a resource. Mentors maintain an open door policy and exist to offer guidance in such matters as surviving in pharmacy school, geographic orientation, accessing resources to address personal issues and other issues as necessary. Ideally, the relationship will develop into one in which the student will seek out the advisor for advice and counsel. Students are encouraged to have regular contact with their mentor by e-mail, phone or in person.

Tutors

Peer tutoring is a service offered through the Office of Academic Affairs (OAA). Students experiencing academic difficulty should first seek assistance from faculty; however, peer tutoring can be arranged to provide students with an additional source of assistance to facilitate learning and mastery of the academic material. Students seeking a tutor should contact the Office of Academic Affairs.

Peer tutors are identified by OAA by an application and/or interview process during the beginning of each academic year. Peer tutors may be current GCOP students, residents, fellows, graduate assistants, or graduate students in a related field. Tutors are identified and assigned to specific courses. For current students, in order to be eligible to serve as a tutor, the student must have completed the course and achieved a grade of B- or above. Tutors must be of good moral character and adhere to University and College standards for employment as a temporary worker. Tutors may not receive course credit and compensation for the same tutoring services. Paid tutors shall report to the Associate Dean of Academic Affairs. Tutors shall maintain a log of their hours worked with OAA.

Library Resources

The Charles C. Sherrod Library is the central university library in the heart of the main campus. This state-of-the-art facility is a great place to study and do research. Filled with natural light, it has comfortable seating, a 24-hour study room, lots of network connections, laptop computers for checkout to students, used paperbacks for leisure reading, and a friendly and helpful library staff to assist you. A medical library which serves the Division of Health Sciences is located in Building 4 on the VA campus. Students and faculty have full electronic access to journals and texts regardless of whether they are on-campus or off-site. The two libraries currently have over 10,800 full-text electronic titles of which nearly 4,000

are health-related. All electronic texts and journals are available from remote as well as on-campus sites.

The libraries share a single Online Public Access Catalog (OPAC) of library materials and databases. Holdings of the Johnson City Medical Center are included in the OPAC. There is an agreement through the Sherrod Library to share all library holdings and database subscriptions with all university-affiliated personnel. Anyone with an ETSU e-mail address may access this information through the Medical Library World Wide Web portal. The portal offers faculty, staff, and students the opportunity to personalize the Library web page for their own most efficient use. Users may contribute to the content of the page, which enable them to share useful web sites and other resources with their colleagues.

A consortium, which includes the Medical Library, Mountain States Health Alliance in Johnson City and the Wellmont Health Systems in Bristol/Kingsport, enables faculty, staff, and students of all three institutions to share MD Consult, a full-text peer-reviewed online database of textbooks and journals. The Medical Library is also a member of a state-wide resource-sharing group called TennShare. Members of the TennShare may access the following publications

- Science Direct, one of the world's largest providers of scientific, technical, and medical literature;
- Interscience, the John Wiley & Sons electronic database access to full-text journals;
- StatRefl, full-text medical and drug information for healthcare professionals available online, on CD-ROM and PDA; and
- Tennessee Electronic Library (TEL) that gives member libraries access to 16 electronic databases.

As a member of the Consortium of Southern Biomedical Libraries (CONBLS) the Medical Library provides and receives interlibrary loan services from member institutions at no charge. The Medical Library is a member of the National Library of Medicine's Regional Library System. This affiliation gives the users (both on campus and in remote locations) access to the Loansome Doc system to enable them to order articles from MEDLINE. ETSU is also a member of the OCLC Online Computer Library Center, Inc., through which the university has access to more than 49 million cataloging records created by libraries around the world.

Study rooms in the Medical Library are available for use during regular library hours.

ID Card and College of Pharmacy Name Badge

All students admitted to the Gatton College of Pharmacy are expected to obtain an ETSU Student ID card and a Gatton College of Pharmacy ID name badge. Cards and badges are available during Orientation or any time after registering for classes. Lost, stolen, misplaced or abused cards may be replaced at the ID Services Office at a cost to the student of \$10. The ID Services Office is located on the 2nd level of the D.P. Culp Center (423-439-8316; office hours M-TH 8 a.m. - 7 p.m. and Friday 8 a.m. - 4:30 p.m.).

The ID card provides students with access to university facilities and services, and can be

used to create a debit account called ID BUC\$ which may be used to pay for a variety of university services including many vending machines. The ID card is also used to access the College of Pharmacy building outside normal business hours. Students are expected to wear their College name badge at all times and are required to do so while at experiential education sites.

Student Engagement and Leadership Opportunities

Class Officers

Each class of students elects officers on an annual basis. In addition to providing general leadership for the class, the officers serve as the official representatives of the class to the administration of the College. Elections are conducted under the general guidance of the Office of Student Affairs.

College Committees

Student pharmacists are provided numerous opportunities to participate in the operation and leadership of the College through inclusion in the College's committee structure. Standing committees that include student membership are: the Admissions Committee, Assessment Committee, Curriculum Committee, Dean's Student Advisory Committee, Emergency Preparedness Committee, Personal and Professional Development Committee, Library Committee, Student Organization Coordinating Committee, Student Life and Wellness Committee, and the Technology Committee. Complete descriptions of the above committees are found in the Gatton College of Pharmacy Student Handbook found on the web at www.etsu.edu/pharmacy.

Student Organizations

The Gatton College of Pharmacy encourages students to become involved in professional organizations and fraternities. The following represents the organizations and fraternities that exist within the College.

- American Pharmacists Association-Academy of Student Pharmacists (APhA-ASP) (www.aphanet.org/students)
- Student Society of Health-System Pharmacists (SSHP) (www.ashp.org/)
- Christian Pharmacists Fellowship International (CPFI) (www.cphi.org)
- National Community Pharmacists Association (NCPA) (www.ncpanet.org)
- Student National Pharmacists Association (SNPhA) (www.snpha.org)
- College of Psychiatric and Neurologic Pharmacists (CPNP) (www.cphp.org)
- Kappa Psi Pharmaceutical Fraternity (www.kappapsi.org)
- Phi Delta Chi (www.phideltachi.org)
- The Rho Chi Society – academic honor society (www.rhochi.org)
- Phi Lambda Sigma – pharmacy leadership society (www.philambdasigma.org)

Descriptions of these organizations as well as information about establishing additional student organizations can be found in the Gatton College of Pharmacy Student Handbook found on the web at www.etsu.edu/pharmacy.

University Resources

ETSU National Alumni Association

The ETSU Office of University Alumni is the campus contact for University graduates, former students, and friends of the university. As part of the Alumni Association's commitment to building strong alumni engagement a membership program is in place to give alumni "Exclusive Access" to thousands of national discounts and savings provided by our partners at Access Development, as well as reduced pricing for ETSU National Alumni Association events and activities. As a gift to our newest alumni the ETSU National Alumni Association gives membership at no cost for one year. Alumni may participate in a variety of activities, such as regional or affinity alumni clubs, special alumni programs and events, student recruitment opportunities, reunions, and Homecoming. Other activities that support ETSU, such as the ETSU PRIDE program, the annual Alumni Golf Classic, and pre-game events or watch parties are also available for alums to engage with their alma mater. Many alumni have been chosen or have volunteered to participate in the popular "Alumni Return to the Classroom" program, which features alumni as "Professors for a Day" sharing their professional experiences with students throughout the year. Alumni may also participate in the ETSU Alumni Mentor Program. As part of the Alumni Association's commitment to communication, our goal to research alumni superlatives for *ETSU Today's Class Notes* section, send timely e-mails to keep alumni informed, and promote ETSU opportunities via our social media channels, continues every day. ETSU's National Alumni Association, in cooperation with the ETSU Foundation, also supports scholarships for academically outstanding students. To contact the Office of University Alumni, we are located on campus at 914 W. Maple Street and are open Monday-Friday 8:00 a.m. – 4:30 p.m. Our phone number is (423) 439-4218, email alumni@etsu.edu or be a part of our online alumni directory anytime at www.etsualumni.org.

Athletic Events

East Tennessee State University is a member of the NCAA Division I Southern Conference and fields teams in men's baseball, basketball, cross country, football, golf, tennis, soccer, and track and field. The women participate in basketball, cross country, golf, soccer, softball, tennis, track and field and volleyball. Full-time students are admitted free with a valid student ID to all university sponsored athletic events. One additional companion ticket may be purchased at a discounted rate for all men's basketball games. For information on ticket prices for non-students, please contact the Athletic Ticket Office located on the west side of the Mini-Dome. Office hours are 8:30 a.m. to 4:30 p.m. Monday through Friday. The phone number is 439-5371. Complete information and schedules for the ETSU teams are available on the ETSU athletics web site at <http://www.etsubucs.com/>.

Bookstore

The University Bookstore is located in the middle of the D.P. Culp Center. It is open fall and spring semester Monday – Thursday 7:45 a.m. to 6 p.m. and Friday 7:45 a.m. to 5 p.m. You may reach the store by phone at (423) 439-4436. A branch of the bookstore is also located on Walnut Street adjacent to campus.

Campus Recreation

Campus Recreation offers a wide variety of physical activities and recreational sports for the entire ETSU community - students, faculty, and staff. Programs are offered in five areas: fitness, intramurals, non-credit instruction, outdoor adventure, and sports clubs. The Center for Physical Activity (CPA) serves as the foundation for these programs. The CPA contains an indoor climbing wall, weight room, aerobic/martial arts studio, indoor swimming pool, three basketball courts, two racquetball courts, 1/8th mile track, locker rooms, and equipment rental center. Campus Recreation also offers a personal training service that includes a weight room orientation, fitness testing, exercise prescription, and supervised workouts.

To obtain more information on Campus Recreation's program and services and hours of operation, call 439-7980, or visit <http://www.etsu.edu/students/campusrec/>.

Counseling Center

The University Counseling Center provides an array of counseling and mental health services to ETSU students, including personal counseling, career counseling and assessment, educational programming, psychiatric services, and consultative services. The staff is comprised of psychologists, an outreach coordinator, psychiatric residents, graduate assistants, and support staff. The Center is also responsible for the Campus Alcohol and Other Drug Program and the Campus Advocates Against Sexual Violence Program. We provide our career services through the Peer Career Center, located in the Advisement, Resources, and Career (ARC) Center. Counseling services are confidential and free to all ETSU students. For more information about our services, contact our main number (423) 439-4841 or contact the Peer Career Center (423) 439-8651 - <http://www.etsu.edu/students/counseling/>.

In addition to the University Counseling Center, Gatton College of Pharmacy contracts with a local psychologist to provide counseling services for student pharmacists to provide greater flexibility for students to access help. Respecting the students' need for privacy, every effort is made to protect the confidentiality needed for an effective therapeutic relationship. No information related to student counseling is kept other than in the counselor's patient files. In a further attempt to protect student information, pharmacy student files are not kept with files of other patients seen by the provider. Counseling hours are flexible. Appointments are made by contacting the psychologist directly at 423.915.6675.

Computing Resources

ETSU provides a wide range of computer resources in support of instruction, research, and public service. The Office of Information Technology maintains four computer labs on the main campus that contain Dell PCs and Macintosh computers. The labs are located in the D.P. Culp Center, Sherrod Library, Sam Wilson Hall and Rogers-Stout Hall. A number of additional labs that are maintained by specific departments, including the Medical Library on the VA campus, are located throughout the campus. A listing of computer labs can be found at <https://www.etsu.edu/helpdesk/labs/>. The labs provide students with access to a variety of popular software including Microsoft Office, Microsoft Visual Studio.net, SAS, SPSS, and Minitab, Photoshop, PageMaker, QuarkXpress, and Macromedia Freehand. When not in use as classrooms, computer labs are available for walk-in use by any registered student.

The OIT computer labs are staffed by Lab Monitors (student workers) at all times. While the lab monitors can provide assistance, they are not tutors in the use of the computers and software.

All students are provided with Internet access and an e-mail address that will be active for the duration of their stay at ETSU. Students are able to register for elective classes and pay fees online via *Goldlink* on ETSU's web page.

Computer Resources Code of Ethics

All users of any institutionally maintained electronic data, data files, software, and networks are expected to handle the resource in a responsible and ethical manner. A user's interest ceases when it invades the right of personal and/or institutional privacy; results in the destruction of personal and/or institutional property; demonstrates a potential for loss, embarrassment, litigation to the individual and/or institution; or causes a limited resource to be used in a wasteful or careless manner.

All information processed through Computer Services is considered sensitive and/or confidential. The responsibility for the release or discussion of data is assigned to the official custodian of the data file(s). Access to information is based on a legitimate "need to know" and directly related to assigned duties.

University electronically maintained data, data files, software, and networks will be used for authorized purposes only. Users are responsible for the security of the resources.

Any use of the resource deemed irresponsible or unethical (as defined in the Faculty Handbook section 1.10.1) will result in the immediate denial of use of the resource. The violation will be referred to the proper authorities for disciplinary and/or legal action including, but not limited to, restitution, restriction, reprimand, suspension, probation, expulsion, termination, and, if necessary, legal action. Appeals will be handled through due process channels (APA) already established for students and/or staff. Student violations will be referred to the Vice President for Student Affairs and/or Vice President for Health Affairs; faculty violations will be referred to the Vice President for Academic Affairs and/or the Vice President for Health Affairs; and staff violations will be referred to the Vice President for Administration and Development. The following examples attempt to convey the intent of irresponsible and/or unethical use: violation of Federal/State copyright laws; violation of the Family Educational Rights and Privacy Act of 1974; use of the resource for obscene material; deliberate wasteful use of the resource, unauthorized altering of hardware, software, or data; piracy of data or software belonging to another person; or careless use of the resource which may result in the release of restricted information.

Computer Network and Internet Access: Privileges & Responsibilities

East Tennessee State University (ETSU) operates a wide-area network that interconnects local area networks in academic and administrative offices, student computer labs, and in the future dormitory rooms. The university maintains connections into the Tennessee Education Cooperative Network (TECnet), the Internet and the World Wide Web. Thus, the university's network is a part of the global network that provides access to information and information

processing technologies. By having access to the university's network and its resources, students, faculty, and staff can communicate and collaborate among themselves and their counterparts throughout the world. This privilege carries with it responsibilities with which all users must comply.

Everyone within the ETSU community who uses networked computing and communications facilities has the responsibility to use them in an ethical, professional and legal manner, and to abide by TECnet policies. Users should respect the privacy rights of others. ETSU's facilities and network access capabilities should never be used for purposes intended to incite crime. Communications which violate Tennessee, federal, or international law are not acceptable. For example, the use of ETSU's computer and network resources to threaten or harass others or the misrepresentation of one's identity in electronic communications for the purpose of illegal or unauthorized actions or activities will not be tolerated.

These statements concerning responsibility are not meant to be exhaustive. Any questionable use should be considered "not acceptable." Serious or repeated instances of abuse will be referred to the proper authority for disciplinary or legal action.

****WARNING**** Any person who knowingly brings on campus, has in their possession or distributes any virus without the authorization and written permission of the Division of Information Resources, will be considered to be in violation of the above and will be vigorously prosecuted. ****Campus**** is defined to include any property owned, leased, maintained or controlled by ETSU and includes any site or area where any system owned, leased, operated and/or maintained by ETSU is housed.

NOTICE TO USERS: It is the policy of East Tennessee State University to protect all institutional computing resources including, but not limited to, hardware and software, consisting of the actual equipment being supplied by the university as well as the programs and related materials used in conjunction therewith. In accordance with local, state, and federal law, indiscriminate examination of individual user's files is not permitted, nonetheless as a means of maintaining the integrity and security of those aforementioned resources.

East Tennessee State University retains the right to inspect individual accounts and files stored on any system owned, maintained and/or leased by said university. While no prior authorization by individual users is required to inspect those files and accounts, the user is, by virtue of accepting the account offered by ETSU and "logging" on to its computing equipment, granting to the university prior unrestricted permission, subject to university policy, to review, examine and/or otherwise view, by any method at the sole discretion of the university and without any additional advance notice to said user, any account and/or file stored on university computer resources.

Should such a review take place, the user will be given notice, as a courtesy only, of the results of said review within a reasonable time after the review is completed. While use of university computing resources for personal use is strictly forbidden, should the user have materials for which he/she has any reasonable expectation of privacy or which the user considers to be confidential for any reason, the user should retain those materials on a disk

which can be secured as would any other personal items or materials which one consider private in nature.

For such a policy to work, it is essential that users observe responsible and ethical behavior in the use of the resources. In an effort to assist the user community in effective use of the limited computer resources, it seems reasonable to highlight some specific responsibilities and types of behavior that represent abuse of a user's privilege. The examples do not constitute a complete list but are intended to convey the intent of the code.

Users should not damage or attempt to damage computer equipment or to modify or attempt to modify equipment so that it does not function as originally intended. It is equally wrong to damage or modify or attempt to damage or modify the software components: operating systems, compilers, utility routines, etc.

Users should not use or attempt to use an account without authorization from the owner of that account. Users have the responsibility of protecting their accounts through the proper use of passwords, but the fact that an account is unprotected does not imply permission for an unauthorized person to use it. Further, accounts are to be used only for the purposes for which they have been established. [Only the individual owner of an account is authorized to use that account. Providing passwords or in any way permitting or making it possible for anyone other than the authorized owner of the account to use computer resources is not authorized and may be a violation of Tennessee Law. Under this condition both the owner and the unauthorized user may be subject to legal action if determined to be appropriate by ETSU legal counsel.] Additionally, it is wrong to use a university-sponsored account for funded research, personal business, or consulting activities. There are special accounts for such purposes.

Users should not use private files without authorization. Owners of such files should take precautions and use the security mechanisms available. However, the fact that a file is not protected does not make it right for anyone to access it, unless it is specifically designed as a public access file. It is equally wrong for anyone to change or delete a file that belongs to anyone else without authorization. Violation of property rights and copyrights covering data, computer programs, and documentation is also wrong. In the event of accidental access of private files, confidentiality of those files must be maintained.

Any deliberate wasteful use of resources is irresponsible; it encroaches on others' use of facilities and deprives them of resources. Printing of large unnecessary listings and the playing of games solely for entertainment are examples of such abuse. Users are expected to be aware of the resources they are using and to make reasonable efforts to use these resources efficiently.

All state and federal copyright laws will be abided by at all times. Users must not copy any part of a copyrighted program or its documentation which would be in violation of the law or the licensing agreement without written and specific permissions of the copyright holder. Serious or repeated instances of abuse of computer facilities and resources will be referred to the proper authorities for disciplinary or legal action including, but not limited to, restitution, restrictions, reprimand, suspension, probation, expulsion, or termination.

Disability Services

In compliance with federal regulations outlined in Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, East Tennessee State University makes accommodations, course substitutions, and other academic adjustments when necessary to ensure equal access for students with disabilities. While all students with disabilities are protected from discrimination, some students may not be eligible for all of the services coordinated by Disability Services. Classroom and testing accommodations are made on an individual case-by-case basis. Students who wish may request an accommodation or academic adjustment because of a disability by completing the intake process with Disability Services self-identity.

During the intake process, Disability Services informs students of procedures surrounding the accommodation process, student responsibilities, as well as ETSU responsibilities. Eligibility for classroom and testing accommodations and other support services coordinated by Disability Services is based on the review of student's documentation of disability. Intake applications are not complete until Disability Services has received and reviewed current documentation of disability. Individualized education plans (IEP) cannot be used as documentation; however, information included in an IEP may be helpful when identifying the services a student may utilize while at ETSU.

In order to establish eligibility, the documentation provided should follow the established guidelines and include:

- Statement of diagnosis, date of most recent evaluation, and when available, date of original diagnosis by an impartial professional,
- Description of diagnostic criteria and/or diagnostic tests used,
- Description of the current impact of the disability in an academic environment,
- Credentials of the diagnosing professional,
- Documentation of attention deficit disorders should be no more than three years old, and
- Documentation of learning disabilities should be no more than five years old with results based on an adult measurement scale.

The diagnosing professional must have specific training and expertise in a field related to the type of disability being diagnosed. For example, a psychologist, psychiatrist, or educational examiner must make a learning disability diagnosis. Documentation not including the information outlined above or from a professional whose credentials are not generally indicative of expertise in the specific disability being diagnosed cannot be used to establish eligibility for services. ETSU does not provide any type of learning disabilities evaluations; however, Disability Services maintains a list of professionals in private practice that can evaluate learning disabilities.

Disability Services is located in the D.P. Culp Center, on J. L. Seehorn, Jr. Road (423) 439-8346, (voice/tdd) (423) 439-8370 - <http://www.etsu.edu/students/ds/>.

Early Childhood Learning and Development

The Center for Early Childhood Learning and Development operates programs to serve the needs of young children and their families. Some of these programs offer child care services for families. The Infant-Toddler programs serve children ages three months to three years in a full-year, full-day program. The Early Learning Program, Child Study Center, serves children ages three through five years of age in a full-year, full-day program. Students who are interested in enrolling their children in either of the programs can obtain more information by calling (423) 439-7555. Enrollment is on a limited basis.

<http://www.etsu.edu/coe/child>.

A child care program, Little Buccaneers Student Child Care Center, specifically designed to meet the needs of ETSU students, opened in June 1997. ETSU students can enroll their children for blocks of time each semester that would accommodate their child care needs while attending classes and during study times. This program is supported by the Student Activities Allocation Committee and ETSU. Information for this program can be obtained by calling 439-7549.

Housing and Residence Life

Student pharmacists who want to live on campus will probably find the following residences more conducive for professional studies. Buccaneer Ridge has fully furnished efficiencies, 2 and 4 bedroom units. Detailed information on university housing, including costs, is available at <http://www.etsu.edu/students/housing>.

Buccaneer Ridge Apartments

Efficiency, two and four single occupancy bedroom apartment units are available. Each apartment contains a furnished living area, single bedrooms with double bed, closet, desk, and chest of drawers; kitchen facilities, including full-sized refrigerator, stove, microwave, and garbage disposal; washer and dryer; patio or balcony; and two bathrooms. Each bedroom is provided with an alarm system; telephone, cable TV and data jack; and individual locks. Residents enjoy a clubhouse with copier and fax availability; lounging pool; volleyball and basketball courts; exercise room; access gate; and individual leases with no connection fees.

Application Procedure

An application for housing may be obtained by contacting the Department of Housing and Residence Life. Detailed information about on-campus housing may be obtained by contacting the Department of Housing and Residence Life at (423) 439-4446 or on the web at <http://www.etsu.edu/students/housing/>. Housing in the Johnson City area is plentiful. Information about off-campus housing is available at the Adult, Commuter, and Transfer Services web site.

<http://www.etsu.edu/students/acts/students/offcampushousing.php>)

International Programs and Services

The International Programs and Services Office, located on the first floor of Yoakley Hall, serves the international community of visiting international students and scholars from more than 60 countries who attend or visit ETSU. Programming, advising, immigration paperwork,

community outreach and the Friendship Family Program are among the many services offered by the office. (www.etsu.edu/honors/international)

Public Safety

The Public Safety Building is located at the entrance of the university on University Parkway and has personnel on duty 24 hours a day for assistance. The emergency telephone number is 911. The public safety staff is composed of 21 state-certified sworn police officers who are also trained firefighters. Public safety is a full-service police department encompassing traffic and parking enforcement, uniformed patrol, criminal investigations, and crime prevention education. Public Safety also provides these services: an escort service, engravers, booster cables, and battery booster packs. The non-emergency telephone number is (423) 439-4480. The number for the administrative offices is (423) 439-6900.

Student Government Association

The ETSU Student Government Association (SGA) strives to represent the opinions of the students on every aspect of campus academic and extracurricular life. Its members work closely with students, faculty, and administration to provide advice and information and a strong voice in the governance of the university. The SGA office is located near the Center for Community Engagement, Learning, and Leadership on the lower level of the D.P. Culp University Center, phone (423) 439-4253.

Student Health Services

The Student Health Clinic is part of the College of Nursing Faculty Practice Network. Clinic services are available to all enrolled students. The professional staff includes nurse practitioners, physicians, registered nurses, and a health educator. Services include: Management of acute, episodic illnesses and injuries, Referrals for assistance in managing chronic disorders, Immunizations, Women's health program and assistance with family planning, Men's health program, Allergy clinic for those receiving allergy injections, Patient education programs on a variety of topics. The Student Health Clinic is located in room 160 Nicks Hall. Please call (423) 439-4225 for further information.

The Dental Hygiene Clinic offers comprehensive preventive therapeutic procedures such as scaling and polishing teeth, pit and fissure sealants, nutritional counseling, periodontal therapy, patient education and exposing and developing radiographs. All treatment is performed, for a modest fee, by dental hygiene students under the supervision of the licensed dentist and dental hygiene faculty. Services are open to all students, university employees, and the general public. Appointments may be obtained by contacting the Dental Hygiene Clinic at 439-4514 in Lamb Hall, room 71.

The Speech-Language-Hearing Clinic, a component of the Department of Communicative Disorders, provides professional speech-language pathology and audiology services to students, faculty, and the general public. The service is provided by speech-language pathology and audiology graduate students under the direct supervision of licensed Speech-Language Pathologists and Audiologists. The areas of service include speech and hearing evaluation, hearing aid evaluation, and treatment of speech and hearing disorders through therapy. Intervention may be available for deficits in articulation, phonology, language,

voice, and fluency. The clinic is located in Room 204 of Lamb Hall. Please call (423) 439-4355 for appointments or information.

University Center, D.P. Culp

The D.P. Culp University Center is a modern architecturally designed student center conveniently located in the heart of campus. The specific purpose of the Culp Center is to serve students as an integral part of their educational life. The Culp University Center provides a wide variety of services, entertainment, and social activities for the campus community. The Culp Center houses five separate food service areas, the bookstore, the post office, a mini-market, a computer lab, a variety of administrative offices, meeting rooms and conference facilities, a ballroom, and an auditorium/theater. For information regarding the use and reservation of these facilities, contact the Culp Center office at (423) 439-4286.

COURSE DESCRIPTIONS

NOTE: Course descriptions are subject to change. Consult ETSU's Bill Gatton College of Pharmacy Office of Academic Affairs for verification of the most current official information.

Year 1

IPPE 3312 Longitudinal Introductory Pharmacy Practice Experience-P1 (1 cr hr)

Yearlong experience that introduces students to pharmacist-provided services. Builds upon relevant coursework in the didactic curriculum including basic communication and technical skills. Consists of patient interactions, simulated experiences (focused primarily on the community pharmacy setting), and service activities.

IPPE 3322 Community Introductory Pharmacy Practice Experience-P1 (2 cr hrs)

Two-week (80-hour) experience in summer after P1 year that allows students to participate directly in activities and patient care in the community setting. Students contribute to pharmacy's medication dispensing process and complete guided, exploration exercises. *Prerequisites and/or Co-requisites: See syllabus*

Fall:

PMIN 3100 IDEALS I: Integrated Environment for Applied Learning and Skills (1 cr hr)

First in series of six integrated skills labs that employ active learning strategies to integrate topics to augment foundational knowledge and build skills necessary to be a pharmacist. Introduces basic concepts and techniques necessary to process prescription or medication order as well as practical experiences in the study of structures and functional aspects of cells, tissues and organs.

PMPR 3140 Contemporary Practice of Pharmacy I: Exploring Ourselves, Our Patients and Our Profession (2 cr hrs)

Introduces and develops the student pharmacist's knowledge on multiple aspects of pharmacy practice. Facilitates self-discovery of the attitudes, values, and habits that form the foundation of the profession of pharmacy. Focuses on career development, the pharmacy profession, and role of pharmacist in providing patient-centered care.

PMPR 3182 Communication Skills for Health Professionals (2 cr hrs)

Introduces students to professional quality communication skills. Develops interprofessional relationships with clients/patients and colleagues as well as with groups and communities in multidisciplinary settings.

PMSC 3114 Pharmaceutical Biochemistry (4 cr hrs)

Demonstrates how basic principles of biochemical structure govern normal metabolic pathways in healthy humans and how they malfunction in disease.

PMSC 3116 Human Physiology (5 cr hrs)

Provides understanding of basic principles and concepts of anatomy, cellular and organ system physiology, leading to an appreciation of the sites and mechanisms of action of drugs in producing both therapeutic and adverse effects. Also provides excellent foundation for understanding physiological basis of pharmaceutical and patient-centered care.

PMSC 3122 Pharmacy Calculations (2 cr hrs)

Introduces students to history of pharmacy, prescription terminology, systems of measurement and pharmacy calculations. Students apply appropriate mathematical concepts found within pharmacy practice, including prescription compounding and patient specific determinations. Emphasis on improving and applying problem-solving skills for needs of individual patients.

PMSC 3133 Pharmaceutics of Drug Delivery Systems (3 cr hrs)

Instruction includes formulation and development of a variety of drug delivery systems, the study of physicochemical principles and pharmaceutical drug delivery systems and their composition both outside and inside the body, and the implications and relationship with patient-centered care.

Prerequisites and/or Co-requisites: PMIN 3100 and PMSC 3122

Spring:**PMIN 3200 IDEALS II: Integrated Environment for Applied Learning and Skills (2 cr hrs)**

Second in series of six integrated skills labs that employ active learning strategies to integrate topics to augment foundational knowledge and build skills necessary to be a pharmacist. Involves preparing and dispensing compounded solutions and introduces patient counseling skills necessary for proper use of compounded products. *Prerequisites and/or Co-requisites: PMSC 3122, PMSC 3133 and PMSC 3233*

PMPR 3240 Contemporary Practice of Pharmacy II: Exploring Ourselves, Our Patients and Our Profession (2 cr hrs)

Continuation of series that introduces and develops the student pharmacist's knowledge on multiple aspects of pharmacy practice. Facilitates self-discovery of the attitudes, values, and habits that form the foundation of the profession of pharmacy. Focuses on career development, the pharmacy profession, and role of pharmacist in providing patient-centered care.

PMPR 3270 Non-Prescription Pharmacotherapy, Natural Medicines, and Self-Care I (2 cr hrs)

Introduces non-prescription medications (including natural medicines) and products used in treating acute illnesses for which pharmacists are consulted. Develops skills in evaluating and recommending non-prescription medication therapy for patients or patient populations. Introduces patient counseling skills specific to common non-prescription products.

PMSC 3202 Immunology (2 cr hrs)

Introduces pharmacy students to major concepts of the innate and acquired immune system.

Prerequisites and/or Co-requisites: PMSC 3114 and PMSC 3116

PMSC 3204 Pathophysiology: Concepts in Altered Health States (4 cr hrs)

Provides understanding of basic principles and concepts of cellular, organ system and generalized pathophysiology, leading to an appreciation of disease and pharmacotherapy. Also provides excellent foundation for understanding basis of patient-centered care. *Prerequisites and/or Co-requisites: PMSC 3116*

PMSC 3223 Foundational Principles: Pharmacology & Autonomics (2 cr hrs)

Provides understanding of the underlying basis of drug actions on living systems. Introduces fundamental concepts of drug-receptor interactions, receptor agonism and antagonism, synergy, dose-response relationships, mechanisms of action, absorption, distribution, metabolism and elimination.

Introduces fundamentals of toxicology. *Prerequisites and/or Co-requisites: PMSC 3114 and PMSC 3116*

PMSC 3224 Foundational Principles: Medicinal Chemistry (2 cr hrs)

Provides understanding of basic principles and concepts of medicinal chemistry, including an overview of the relationship of drug structure to pharmacological activity and an understanding of the processes involved in the design and development of modern pharmaceuticals. *Prerequisites and/or Co-requisites: PMSC 3114 and PMSC 3116*

PMSC 3233 Biopharmaceutics and Biotechnology (2 cr hrs)

Focuses on biological factors that affect drug product disposition and efficacy. Introduces pharmacokinetic principles. Also introduces pharmaceutical products of biotechnology and the science that governs the development and implementation of these drugs. *Prerequisites and/or Co-requisites: PMSC 3114, PMSC 3116 and PMSC 3133*

Year 2

IPPE 4312 Longitudinal Introductory Pharmacy Practice Experience-P2 (1 cr hr)

Yearlong experience that develops intermediate skills and pharmacist-provided services. Builds upon relevant coursework in didactic curriculum and IPPEs, and consists of patient interactions, simulated experiences and service activities. *Prerequisites and/or Co-requisites: Enrollment in 2nd professional year (P2)*

IPPE 4322 Clinical Pharmacy Practice Experience (1 cr hr)

One-week (40-hour) faculty-supervised clinical pharmacy experience in ambulatory care or general inpatient medicine setting. Occurs in summer after P2 year. Allows students to integrate relevant didactic and IPPE coursework in clinical practice. *Prerequisites and/or Co-requisites: Successful completion of Longitudinal IPPE-P2*

IPPE 4332 Institutional Introductory Pharmacy Practice Experience-P2 (2 cr hrs)

Two-week (80-hour) experience in summer after P2 year that allows students to become more involved in pharmaceutical care and the operation of the pharmacy in an inpatient institutional setting. *Prerequisites and/or Co-requisites: Successful completion of Longitudinal IPPE-P2*

Fall:

PMIN 4100 IDEALS III: IntegratED Environment for Applied Learning and Skills (1 cr hr)

Third in series of six integrated skills labs that employ active learning strategies to integrate topics to augment foundational knowledge and build skills necessary to be a pharmacist. Involves clinical and pharmacy practice skills demonstrations, standardized patient encounters, patient case discussions and presentations. *Prerequisites and/or Co-requisites: Enrollment in 2nd professional year (P2)*

PMIN 4110 Integrated Series: Infectious Diseases (3.5 cr hrs)

Instructs students how to incorporate basic science principles of pharmacology and medicinal chemistry in identifying and assessing medical problems of patients and then to recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy. *Prerequisites and/or Co-requisites: Enrollment in 2nd professional year (P2)*

PMIN 4120 Integrated Series: Pulmonary (2.5 cr hrs)

Instructs students how to incorporate basic science principles of pharmacology and medicinal chemistry in identifying and assessing medical problems of patients and then to recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy. *Prerequisites and/or Co-requisites: Enrollment in 2nd professional year (P2) and successful completion of previous courses in the Integrated Series or by approval of course coordinator*

PMPR 4140 Evidence-Based Practice of Pharmacy I (3 cr hrs)

Introduces students to principles of evidence-based practice, including research design, data analysis and biostatistics in the interpretation and critical analysis of biomedical literature with the purpose of developing evidence-based care recommendations for patients or patient populations. *Prerequisites and/or Co-requisites: Enrollment in 2nd professional year (P2)*

PMPR 4170 Non-Prescription Pharmacotherapy, Natural Medicines, and Self-Care II (3 cr hrs)

Continuation of series that introduces non-prescription medications (including natural medicines) and products used in treating acute illnesses for which pharmacists are consulted. Develops skills in evaluating and recommending non-prescription medication therapy for patients or patient populations. Introduces patient counseling skills specific to common non-prescription products. *Prerequisites and/or Co-requisites: Enrollment in 2nd professional year (P2)*

PMSC 4134 Pharmacokinetics and Pharmacogenomics (4 cr hrs)

Provides understanding of concepts of absorption, distribution, metabolism and elimination of drugs. Applies mathematical principles to study of pharmacokinetics. Introduces pharmacokinetic and pharmacodynamic factors involved in drug response variability. *Prerequisites and/or Co-requisites: PMSC 3133 and PMSC 3233, and enrollment in 2nd professional year (P2)*

Spring:

PMIN 4200 IDEALS IV: Integrated Environment for Applied Learning and Skills (2 cr hrs)

Fourth in series of six integrated skills labs that employ active learning strategies to integrate topics to augment foundational knowledge and build skills necessary to be a pharmacist. Involves clinical and pharmacy practice skills demonstrations, standardized patient encounters, patient case discussions and presentations. *Prerequisites and/or Co-requisites: Enrollment in 2nd professional year (P2)*

PMIN 4210 Integrated Series: Cardiovascular (5 cr hrs)

Instructs students how to incorporate basic science principles of pharmacology and medicinal chemistry in identifying and assessing medical problems of patients and then to recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy. *Prerequisites and/or Co-requisites: Enrollment in 2nd professional year (P2) and successful completion of previous courses in the Integrated Series or by approval of course coordinator*

PMIN 4220 Integrated Series: Renal (2 cr hrs)

Instructs students how to incorporate basic science principles of pharmacology and medicinal chemistry in identifying and assessing medical problems of patients and then to recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy. *Prerequisites and/or Co-requisites: Enrollment in 2nd professional year (P2) and successful completion of previous courses in the Integrated Series or by approval of course coordinator*

PMPR 4233 Principles of Clinical Pharmacokinetics (2 cr hrs)

Builds on students' understanding of pharmacokinetic concepts and provides greater appreciation and understanding of the application of pharmacokinetic principles in patient care situations. Consists of didactic instruction and case studies. *Prerequisites and/or Co-requisites: PMSC 4134, and enrollment in 2nd professional year (P2)*

PMPR 4240 Evidence-Based Practice of Pharmacy II (3 cr hrs)

Introduces principles of drug information and develops literature evaluation and evidence-based medicine concepts previously introduced. Teaches skills to analyze and interpret medical literature. Emphasis on active learning within lab setting. *Prerequisites and/or Co-requisites: PMPR 4140, and enrollment in 2nd professional year (P2)*

PMPR 4283 Pharmacy Law and Ethics (3 cr hrs)

Introduces and develops knowledge of legal and ethical aspects of pharmacy practice. Covers general principles of law; federal and state (Tennessee) laws pertaining to pharmacy practice; professional and patient advocacy; and ethical principles of pharmacy practice. *Prerequisites and/or Co-requisites: Enrollment in 2nd professional year (P2)*

Year 3**IPPE 5312 Longitudinal Introductory Pharmacy Practice Experience-P3 (1 cr hr)**

Yearlong experience that develops final skills students need to progress to advanced pharmacy practice experiences. Builds upon relevant coursework in didactic curriculum and IPPEs. Consists of patient interactions, simulated experiences (primarily clinical pharmacy practice and drug information), and service activities. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3)*

PMPR 5361 Clinical Seminar I (1 cr hr)

Yearlong course that introduces clinical seminar series. Provides instruction on preparing a formal, clinically oriented seminar. Activity involves observing and evaluating seminars presented by 4th year students. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3)*

Fall:**PMIN 5100 IDEALS V: IntegrateD Environment for Applied Learning and Skills (2 cr hrs)**

Fifth in series of six integrated skills labs that employ active learning strategies to integrate topics to augment foundational knowledge and build skills necessary to be a pharmacist. Involves clinical and pharmacy practice skills demonstrations, standardized patient encounters, patient case discussions and presentations. Develops pharmacist-specific professional skills. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3)*

PMIN 5110 Integrated Series: Neurologic and Psychiatry Pharmacy (6 cr hrs)

Integrated study of anatomy, pathophysiology, physical and mental assessment, pharmacology, therapeutics, clinical pharmacokinetics, patient care, alternative/complementary therapies, pharmaco-economic issues, medication use in special populations, and review of pertinent drug literature as related to common diseases involving the neurological and psychiatric systems. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3) and successful completion of previous courses in the Integrated Series or by approval of course coordinator*

PMIN 5120 Integrated Series: Endocrine, Eye and Derm (3 cr hrs)

Instructs students how to incorporate basic science principles of pharmacology and medicinal chemistry in identifying and assessing medical problems of patients and then to recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3) and successful completion of previous courses in the Integrated Series or by approval of course coordinator*

PMIN 5130 Integrated Series: Women's and Men's Health (2 cr hrs)

Instructs students how to incorporate basic science principles of pharmacology and medicinal chemistry in identifying and assessing medical problems of patients and then to recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3) and successful completion of previous courses in the Integrated Series or by approval of course coordinator*

PMIN 5140 Integrated Series: Gastroenterology and Nutrition (2 cr hrs)

Instructs students how to incorporate basic science principles of pharmacology and medicinal chemistry in identifying and assessing medical problems of patients and then to recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3) and successful completion of previous courses in the Integrated Series or by approval of course coordinator*

PMPR 5140 Advanced Contemporary Practice of Pharmacy I (2 cr hrs)

Introduces and develops knowledge regarding multiple aspects of advanced pharmacy practice, including institutional pharmacy, long-term care pharmacy, the role of the pharmacist in public health, and other practice areas. Develops practice skills in management, including practice, health-systems, career and professional management. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3)*

Spring:

PMIN 5200 IDEALS VI: Integrated Environment for Applied Learning and Skills (2 cr hrs)

Last in series of six integrated skills labs that employ active learning strategies to integrate topics to augment foundational knowledge and build skills necessary to be a pharmacist. Involves clinical and pharmacy practice skills demonstrations, standardized patient encounters, patient case discussions and presentations. Develops pharmacist-specific professional skills. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3)*

PMIN 5210 Integrated Series: Immunology/Hematology/Oncology Pharmacy (4 cr hrs)

Instructs students how to incorporate basic science principles of pharmacology and medicinal chemistry in identifying and assessing medical problems of patients and then to recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3) and successful completion of previous courses in the Integrated Series or by approval of course coordinator*

PMIN 5220 Integrated Series: Critical Care and Toxicology (2 cr hrs)

Instructs students how to incorporate basic science principles of pharmacology and medicinal chemistry in identifying and assessing medical problems of patients and then to recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3) and successful completion of previous courses in the Integrated Series or by approval of course coordinator*

PMIN 5230 Integrated Series: Pediatrics and Geriatrics (2 cr hrs)

Instructs students how to incorporate basic science principles of pharmacology and medicinal chemistry in identifying and assessing medical problems of patients and then to recommend appropriate therapy, concentrating on medication therapy or pharmacotherapy. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3) and successful completion of previous courses in the Integrated Series or by approval of course coordinator*

PMIN 5240 Integrated Series: Advanced Clinical Pharmacotherapy (2 cr hrs)

Instructs students how to compile skills and knowledge from previous semesters into a cohesive approach to providing patient care. Reinforces common disease states in a way that mimics real-world patient care. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3) and successful completion of previous courses in the Integrated Series or by approval of course coordinator*

PMPR 5240 Advanced Contemporary Practice of Pharmacy II (2 cr hrs)

Provides broad overview of practicing pharmacists work environment, decision making, workplace resources, management skills, and marketing considerations. Emphasis on skills and resources necessary to be a successful practicing pharmacist, pharmacy manager, or cognitive services provider. Covers basic marketing, management, accounting and personnel issues. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional (P3) year*

Year 4

PMPR 6361 Clinical Seminar II (1 cr hr)

Provides student opportunity to select clinically relevant seminar topic, and construct and present evidence-based seminar to audience of faculty and peers. *Prerequisites and/or Co-requisites: PMPR 5361 and enrollment in 4th professional year (P4)*

APPE 6101 Institutional Practice I (4 cr hrs)

Exposes student to various daily duties in an inpatient hospital setting. Explores services such as medication use process, drug distribution, sterile products preparation, automation, operations management, resource management and institutional legal and regulatory standards. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6102/6507 Community Practice (4 cr hrs)

Exposes student to various patient-centered services in a community pharmacy setting. Explores services such as medication dispensing, patient counseling, drug therapy monitoring, medication therapy management and drug information services. Also includes resource management and operations management. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6103/6505 General Inpatient Medicine I/II (4 cr hrs)

Exposes student to patient-centered care in a hospital setting. Involves assessing patients and developing therapeutic plans in collaboration with other healthcare professionals. Involves taking medication histories, monitoring patient progress and providing drug information to healthcare professionals and patients. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6104/6506 General Ambulatory Care I/II (4 cr hrs)

Exposes student to patient-centered care in an ambulatory/primary care setting. Develops communication and assessment skills, physical assessment, chronic disease management and preventative care and therapy modifications for special patient populations. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6508 Diabetes-Ambulatory Care (4 cr hrs)

Exposes student to comprehensive patient-centered care ambulatory patient with diabetes. Develops skills in medication counseling and calculations, nutrition counseling and physical activity counseling. Develops patient advocacy skills. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6509 Geriatrics/Long Term Care (4 cr hrs)

Exposes student to providing pharmaceutical care to elderly patients and those requiring long term care services. Involves knowledge of geriatric disease states, aging organ function and related drug response alterations in order to care for special needs of elderly patients. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6510 Critical Care (4 cr hrs)

Exposes student to patient-centered care in a hospital setting. Involves assessing patients and developing therapeutic plans in collaboration with other healthcare professionals. Involves taking medication histories, monitoring patient progress and providing drug information to healthcare professionals and patients. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6511 Community Pharmacy Patient Care Services (4 cr hrs)

Exposes student to patient-centered, value-added services, including patient counseling, drug therapy monitoring, drug information services, Medication Therapy Management consultations, disease-state management, specialty compounding, and/or immunizations, among others. Also includes resource and operations management. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6512 Psychiatry (4 cr hrs)

Exposes student to pharmacotherapy of mental health. Develops skills in assessment and patient care plans while collaborating with other healthcare professionals to monitor drug therapy of patients. Provides experience in treating diverse psychiatric and behavioral problems. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6513 Pediatrics (4 cr hrs)

Exposes student to patient-centered care to pediatric patients. Involves assessing patients and developing therapeutic plans in collaboration with other healthcare professionals. Involves taking medication histories, monitoring patient progress and providing drug information to healthcare professionals, patients and families. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6514 Infectious Diseases (4 cr hrs)

Exposes student to appropriate use of antimicrobial agents in hospital setting. Involves training in clinical pharmacokinetics, drug therapy evaluation, interpretation of lab results, effective communication with healthcare team, drug literature and new product evaluation, and patient education. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6515 Nephrology (4 cr hrs)

Exposes student to care of hospitalized patients with acute and chronic renal disease and disorders. Involves assessing and monitoring patients, taking medication histories and developing therapeutic plans in collaboration with other healthcare professionals. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6516 DPC Outpatient Hematology/Oncology (4 cr hrs)

Exposes student to care of outpatients with neoplastic disease and the rational therapy with oncological agents. Works with healthcare team and patients in pain management, nausea/vomiting management and side effects management. May compound chemotherapeutic agents. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6516 DPC Inpatient Hematology/Oncology (4 cr hrs)

Exposes student to care of inpatients with neoplastic disease and the rational therapy with oncological agents. Works with healthcare team and patients in pain management, nausea/vomiting management and side effects management. May compound chemotherapeutic agents. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6518 Indian Health Service (4 cr hrs)

Exposes student to care of American Indians and Alaska Natives through the federal health services agency, IHS. Involves inpatient and outpatient experiences. Involves incorporating modern and currently accepted healthcare practices into Indian cultures and traditional tribal healing methods. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6519 Cardiology (4 cr hrs)

Exposes student to care of patients in cardiology setting. Involves developing individualized pharmaceutical care plans for assigned patients in cardiovascular units and/or clinics. May involve counseling patients on anticoagulant or antiarrhythmic medications. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6520 Anticoagulation-Ambulatory Care (4 cr hrs)

Exposes student to comprehensive anticoagulation management, including vitamin K antagonists, direct thrombin inhibitors, and heparins. Involves participating in inpatient and outpatient anticoagulation, including patient education, monitoring and dosing. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6521 Emergency Medicine (4 cr hrs)

Exposes student to patient-centered care in emergency department and/or trauma setting. Enhances skills in patient assessment and drug therapy assessment, monitoring and management. Provides exposure to various disease states. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 6523 Transitions of Care (4 cr hrs)

Exposes student to patient-centered care in hospital/health-system, physician office, or other ambulatory/primary care setting, specifically focusing on transition of care between inpatient and outpatient pharmacotherapy. Must function as member of multi-professional team. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7006 Retail Pharmacy Management (4 cr hrs)

Exposes student to role and responsibilities of pharmacy district supervisor and administrator in community chain pharmacy administrative setting. Focuses on business aspects of pharmacy operations, including assessment and decision-making processes involved in financial and human resource management. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7007 Institutional Pharmacy Management (4 cr hrs)

Exposes student to role and responsibilities of the Director of Pharmacy and other components of institutional administration. Focuses on management of pharmacy operations in a hospital pharmacy administrative setting. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7009 Outpatient Infusion (4 cr hrs)

Focuses on providing infusion services from a community-based pharmacy operation. Exposes student to parenteral and enteral nutrition and formulations. Includes research, preparation and distribution of intravenous products and supplies to homebound or specialty-institutionalized patients. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7011 Nuclear Pharmacy (4 cr hrs)

Introduces student to practice of nuclear pharmacy. Concentrates on pharmaceutical care and radiopharmaceutical compounding, quality assurance, health physics and regulatory compliance. Student interacts with nuclear medicine personnel and participates in clinical use of diagnostic and therapeutic radiopharmaceuticals. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7012 Professional Association (4 cr hrs)

Broadens student's knowledge and understanding of pharmacy association management. Provides experiences in national and state practice issues, education, member services, student development, policy and advocacy, and public relations. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7017 Compounding Pharmacy (4 cr hrs)

Exposes student to compounding specialty medications not commercially available in necessary dosage forms for unique patient populations. Develops knowledge of regulations, special equipment and space considerations. Includes marketing of this specialized service. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7031 Surgery (4 cr hrs)

Exposes student to fundamentals of surgery pharmacy. Develops knowledge and understanding of drugs used in surgery, surgical procedures and general patient care. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7032 Academia (4 cr hrs)

Exposes student to all aspects of the academic process. Develops understanding of what it means to be an academician in all three pillars of academia – teaching, scholarship and service. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7038 Global Health Outreach (4 cr hrs)

Exposes student to pharmacy-related opportunities in non-traditional settings focused on indigent populations. Involves providing pharmaceutical care to patients at multidisciplinary healthcare clinic

and drug information consultations to other healthcare professionals. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4); see syllabus for other prerequisites/co-requisites.*

APPE 7044 Independent Community Pharmacy Ownership (4 cr hrs)

Exposes student to all aspects of independent community pharmacy ownership. Involves basic community pharmacy activities as well as resource management and operations management. Emphasizes financial analysis and human resource issues. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7045 Veterinary Pharmacy Experience (4 cr hrs)

Exposes student to patient-care experience in various treatment areas of veterinary pharmacy. Involves unique pharmaceutical needs and specific dosage forms needed in management of animals. Includes compounding and administering animal products/medications. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7049/7056/7057 International I/II/III (4 cr hrs)

Exposes student to practice of pharmacy within healthcare delivery system of a European country. Develops knowledge of foreign health systems and fosters appreciation for cultural similarities and differences. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4); see syllabus for other prerequisites/co-requisites.*

APPE 7052 PharmD/MPH Field Experience (4 cr hrs)

Complements clinical pharmacy training with additional in-depth training in public health. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4) and the PharmD/MPH dual degree program.*

APPE 7055 Medication Safety (4 cr hrs)

Provides opportunity to learn about medication errors, including contributing factors and error prevention. May collect and analyze data and present findings. May attend patient safety meetings and other meetings. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7058 Hospice (4 cr hrs)

Exposes student to hospice care and the role medications and pharmacists play in caring for patients near the end of life. May involve working with various healthcare professionals and caregivers. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7060 Research/Drug Development (4 cr hrs)

Exposes student to various aspects of research, including reviewing scientific literature, relevant research training, recording and tracking data, conducting experiments and clinical trials, preparing manuscripts, and presenting research findings. Setting can be on a national level or local level. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4)*

APPE 7061 Health and Human Services (4 cr hrs)

Gives student a general understanding of pertinent public health issues along with the roles pharmacists have within the FDA or the CDC. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4) and completion of clerkship application*

APPE 7062 Global Health Initiatives (4 cr hrs)

Allows students to gain an increased global perspective while advancing pharmacy practice skills. Setting is rural and underserved communities in a low or middle-income country. Student responsible for travel costs. *Prerequisites and/or Co-requisites: Enrollment in 4th professional year (P4) and completion of clerkship application*

Approved Electives within the Bill Gatton College of Pharmacy**PMIN 7301 Pharmacy Research Seminar (1 cr hr)**

Exposes student to current research and advances in pharmacy and related sciences by examining recently published articles. Requires student to present articles, discuss scientific issues and understand the analysis of research projects.

Pending Approval: PMIN 7302 Healthcare Policy (1 cr hr)

Introduces students to the structure, strengths and weaknesses of the U.S. healthcare system relative to other common models of healthcare delivery and financing. Attempts at U.S. healthcare reform will also be discussed.

PMPR 7101 Folk Medicine and Remedies of Southern Appalachia (2 cr hrs)

Introduces Appalachian folk medicine, including examination of health, illness and treatment of disease from a pharmacist's perspective. Includes various theories of illness, types of healers, nostrums, and the empirical basis for the remedies and alternative forms of therapy. Discusses some medicinal properties of treatments prescribed in the rural Appalachian region.

PMPR 7102 Professional Development for Postgraduate Training (2 cr hrs)

Addresses various issues related to professional development and postgraduate training. Reviews postgraduate training opportunities available to graduating student pharmacists with a focus on pharmacy residencies. Discusses steps to secure a postgraduate year one (PGY1) residency upon graduation. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3)*

PMPR 7103 Evidence-Based Diabetes Management (2 cr hrs)

Exposes student to evidence-based foundation in the principles of diabetes therapy and management. Develops knowledge and ability to assess, manage, educate, monitor, and recommend pharmacotherapy for patients with diabetes. Emphasizes diabetes in rural Appalachian region. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3)*

PMPR 7104 Relationship of Pharmacy and Health Disparities in the Appalachian Region (2 cr hrs)

Explores regional health disparities through understanding the pivotal influence of pharmacy needs and care. Engages students in teams to explore regional health disparities and define the influence of the presence or absence of pharmacy-related services and initiatives on regional health.

PMPR 7105 Interprofessional End-of-Life Clinical Care (3 cr hrs)

Exposes student to content related to death/dying and quality end-of-life care. Includes pain and symptom management, palliative care and hospice models, end-of-life conversations, ethical dilemmas, grief and bereavement, spirituality, and social, economic and legal issues at the end of life.

PMPR 7106 History of Pharmacy (2 cr hrs)

Introduces historical development of medicine and drugs from Ancient times through the present. Highlights emergence of Pharmacy and Pharmacists as a distinct profession and professionals, along with the development of the educational, legal, and social framework that supported this development.

PMPR 7107 Drug-Induced Diseases (2 cr hrs)

Develops knowledge and skills needed to address drug-induced diseases. Provides comprehensive information regarding detection, prevention, and management of drug-induced diseases.

PMPR 7108 Ambulatory Care Pharmacy Practice in Appalachia (2 cr hrs)

Introduces and develops knowledge of various aspects of ambulatory care pharmacy practice. Focuses on chronic disease management, and prevention and wellness. Exposes student to pharmacist's role as part of patient-centered, interdisciplinary primary care team, specifically in the Appalachian region.

Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3)

PMPR 7109 Women's Health (1 cr hr)

Broadens student's knowledge in common women's health areas. Introduces new topics not covered elsewhere in the curriculum. Includes discussions related to controversies in women's health.

Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3)

PMPR 7110 Anticoagulation (1 cr hr)

Develops fundamental skills acquired in the integrated series and provides in-depth training at managing various anticoagulation treatments and related diseases. Focuses on all areas of practice including acute and ambulatory care. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3)*

PMPR 7111 Advanced Oncology Pharmacy (1 cr hr)

Supplements oncology material covered in Integrated Series. Focuses on malignancies and high level oncology topics not covered elsewhere in curriculum. *Prerequisites and/or Co-requisites:*

Enrollment in 3rd professional year (P3)

PMPR 7112 Advanced Pediatric Pharmacy (1 cr hr)

Supplements pediatrics material covered in Integrated Series. Focuses on practical issues involving infants and children that the pharmacist will encounter. *Prerequisites and/or Co-requisites:*

Enrollment in 3rd professional year (P3)

PMPR 7113/7114/7115/7120/7121/7122 Pharmacy Practice Research/Scholarship

I/II/III/IV/V/VI (1-4 cr hrs)

Exposes student to practice-based research project through its conception, design, execution and reporting by working independently with a faculty advisor on a selected project. *Prerequisites and/or Co-requisites: By agreement between student and faculty advisor*

PMPR 7116 Business Plan Basics for Independent Pharmacy (2 cr hrs)

Prepares student to write and present business plan for purchase of an independent community pharmacy. Focuses on variables of ownership and management that may affect business success, including business development, financial planning, capital generation and marketing of an independent pharmacy. *Prerequisites and/or Co-requisites: National Community Pharmacy Association (NCPA) membership*

PMPR 7117 Personal Finance for the Future Pharmacist (1 cr hr)

Introduces and develops knowledge regarding multiple aspects of personal finance. Uses Dave Ramsey's **Foundations in Personal Finance** college curriculum.

PMPR 7118 Substance Abuse and Addiction in Appalachia: Impacting the Community through a Vision of Change (2 cr hrs)

Exposes student to history, physical, sociocultural, and psychological effects of substance abuse and the underlying disease of addiction. Gives perceptive insights into the complex fields of drug abuse, compulsive behaviors, addiction, treatment, recovery, and prevention.

PMPR 7119 Infectious Diseases Pharmacotherapy (1 cr hr)

Supplements fundamental concepts of infectious diseases introduced in the Integrated Series. Ideal for students who have a strong interest in infectious diseases and/or are likely to seek post-graduate training in either an acute or ambulatory care setting. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3)*

PMPR 7123 HIV Pharmacotherapy (1 cr hr)

Supplements fundamental concepts of infectious diseases introduced in the Integrated Series. Focuses on human immunodeficiency virus (HIV) infection and AIDS, the therapeutic approach in treatment and the stigma of living with HIV. *Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3)*

PMPR 7124 Primer on Pharmacy Policy and Advocacy (1 cr hr)

Exposes student to active involvement in policy and legislative issues that impact the profession of pharmacy, other aspects of healthcare, and general legislation affecting the general population. Develops student's leadership ability and enhances potential for future volunteer leadership

PMPR 7125 Patient-Centered Care for the Underserved (1 cr hr)

Introduces and develops student's knowledge and awareness of underserved patient populations. Increases knowledge of methods to access health care for and programs available to underserved patient populations, specifically in the Appalachian region.

PMPR 7126 Global Healthcare: Perspectives and Practice (3 cr hrs)

Introduces multidisciplinary health professional students to global concepts without requiring a passport. Serves as foundational step for practicing cross-cultural competency as a healthcare professional and preparation for short-term trips. *Prerequisites and/or Co-requisites: Enrollment in health professional program in the Academic Health Sciences Center or by approval of the course coordinator*

PMPR 7127 Developing Point of Care Testing Services in a Community Pharmacy Practice (1 credit hour)

Develops competency in patient assessment, physical assessment, disease state presentation, pharmacy law and risk management skills to empower pharmacists to use effective, fast technology to aid decision-making at the "point-of-care" to improve patients' health. Prepares student for success on online assessment for the National Association of Chain Drug Stores (NACDS) *Community Pharmacy-Based Point-of-Care Testing* certificate program.

PMPR 7128 Delivering Medication Therapy Management Services (1 cr hr)

Envelops and expands upon APhA's *Delivering Medication Therapy Management Services* certificate training program that presents systematic approach for developing, implementing, delivering, and sustaining MTM services in a variety of practice settings, particularly in the community sector.

Prerequisites and/or Co-requisites: Enrollment in 3rd professional year (P3)

PMPR 7129 Healthcare Spanish (2 cr hrs)

Introduces language and culture in a healthcare setting to aid pharmacy students with future communication needs with patients/clients. Focuses on speaking, listening, reading, and writing skills, with emphasis on vocabulary and cultural situations appropriate for a healthcare profession.

Prerequisites and/or Co-requisites: Some prior language experience or by approval of course coordinator

PMPR 7130 Pharmacy Leadership Forum (1 cr hr)

Introduces students to leadership development concepts and develops leadership skills through interactions with course coordinators and leaders in professional and corporate environments.

PMPR 7131 Global Healthcare: Disease Treatment and Prevention (3 cr hrs)

Introduces health professional students to treatment and prevention of global health issues within a broad cultural context. Interprofessional course that focuses on rural and underserved populations.

Pending Approval: PMPR 7132 Application of Acute Care Pharmacy Practice (2 cr hrs)

Designed for students interested in pursuing postgraduate residency training and learning more about clinical practice in the hospital. Exposes students to basics of inpatient, acute care clinical practice and to hospital leadership responsibilities, formulary management and pharmacy stewardship concepts.

PMPR/PMSC 7300 Capstone Experience in Pharmacy Research (4 cr hrs)

Serves as an "umbrella" for the distinctive experiences that students participating in the CPRx may use to fulfill required Capstone credits for the Award for Excellence in Pharmacy Research.

Prerequisite: PMSC 7204-7206 or PMPR 7113-7115 within Capstone advisor's laboratory

PMPR/PMSC 7301 Focused Projects in Pharmacy I (1-4 cr hrs)

Engages student with one or more faculty members to develop and/or conduct an education- or practice-focused (non-research) project. Does not count toward the Concentration in Pharmacy Research requirements.

PMSC 7201 Veterinary Pharmacy (2 cr hrs)

Exposes student to overview of biologicals and pharmaceuticals commonly encountered in veterinary medicine, concentrating on drugs and diseases that could be encountered by a pharmacist. Includes agents used solely as veterinary pharmaceuticals as well as drugs used in human medicine that have unique application in veterinary practice.

PMSC 7202 Principles of Toxicology (2 cr hrs)

Provides understanding of basic principles and concepts of toxicology, including various mechanisms of toxicological response. Also presents clinical applications, including toxicology of various drug classes, vitamins, alcohols, metals, environmental chemicals, and agents used for chemical and biological warfare.

PMSC 7203 Non-Medicinal Drug Use (2 cr hrs)

Exposes student to wide range of topics about use of drugs for non-medicinal purposes. Discusses the continuum of legitimate versus non-legitimate drug use, or medical versus non-medical use. Focuses on issues of drug abuse, particularly in Appalachia and other rural environments.

PMSC 7204/7205/7206/7208/7209/7210 Pharmaceutical Sciences Research I/II/III/IV/V/VI (1-4 cr hrs)

Exposes student to laboratory research through experimental conception, design and execution by working independently with a faculty advisor on a selected research project. ***Prerequisites and/or Co-requisites: By agreement between student and faculty advisor***

PMSC 7207 Fundamentals of Clinical Trials (2 credit hours)

Exposes student to main aspects of clinical trials in industry, academia and government settings. Provides overview of FDA and regulatory requirements in drug development process, as well as responsibilities that a PharmD acquires when he/she assumes the role of Principal Investigator (P.I.) of a clinical trial.

Approved Electives in other ETSU Colleges

The following courses have been approved by the Curriculum Committee and Faculty Council of the Gatton College of Pharmacy. Students' opportunity to enroll in courses offered by other colleges on campus may be dependent upon class space, instructor permission, and/or scheduling constraints. For further information, contact the Office of Academic Affairs.

ACCT 5050 Health Care Accounting and Finance (3 credit hours)

Applies concepts of accounting and finance within the context of the health care industry. Includes basic accounting and finance principles and how principles are applied in the health care arena. Topical coverage includes financial statement preparation and analysis, cash flow analysis, cost behavior control, capital acquisition, budgeting, reimbursement mechanisms, and managed care.

AMBA 5150 Accounting Information for Decision Makers (3 cr hrs)

Prepares student manager to use accounting information in making management decisions. ***Prerequisite: Enrollment in the PharmD/MBA dual degree program. NOTE: Graduate tuition and fees are the student's responsibility.***

AMBA 5230 Strategic Leadership (3 cr hrs)

Focuses on leadership roles and responsibilities of strategic managers and top-level managers responsible for setting organizational direction, identifying and managing core competencies, establishing supportive organizational cultures, and ensuring organizational integrity. ***Prerequisite: Enrollment in the PharmD/MBA dual degree program. NOTE: Graduate tuition and fees are the student's responsibility.***

AMBA 5430 Applied Corporate Finance (3 cr hrs)

This course applies analytical techniques to the firm's investment and financing decisions. Topics include capital budgeting; capital structure; short-, intermediate, and long-term financing; asset valuation techniques. The course will be conducted in a lecture, discussion, and case-analysis format. The material will be divided into modules with assessment for each module. **Prerequisite:** *Enrollment in the PharmD/MBA dual degree program. NOTE: Graduate tuition and fees are the student's responsibility.*

AMBA 5500 Strategic Management Process (3 cr hrs)

Introduces student to strategic thinking from the executive perspective of general management. Provides understanding of the interdependence between the organization and its environment. **Prerequisite:** *Enrollment in the PharmD/MBA dual degree program. NOTE: Graduate tuition and fees are the student's responsibility.*

COBH 3330 Cultural Competence and Spirituality in Health Care (3 cr hrs)

Health care effectiveness increases when the spiritual and cultural traditions of the patient are addressed. In this class, students will receive an orientation to the practices and concerns of diverse cultural and religious groups. **NOTE: CPH course fee is the student's responsibility.**

COBH 5200 Social & Behavioral Foundations of Public Health (3 cr hrs)

Exposes student to concepts and methods of social and behavioral sciences relevant to identifying and solving public health problems. Discusses social, cultural, economic and environmental factors as the fundamentals upon which public health has been developed at various levels. **Prerequisite:** *Enrollment in the PharmD/MPH dual degree program. NOTE: CPH course fee is the student's responsibility.*

ENVH 5100 Environmental Health Practice I (3 cr hrs)

Discusses effects of environment and occupations on health. Discusses historical background of human ecology, communicable disease control, and special programs and problems in public health. **Prerequisite:** *Enrollment in the PharmD/MPH dual degree program. NOTE: CPH course fee is the student's responsibility.*

EPID 5700 Interprofessional Perspectives on Global Health (3 cr hrs)

Addresses the knowledge and skills necessary to work in interprofessional healthcare teams in a global health setting. Includes study abroad trip to Nicaragua. **NOTE: Graduate tuition, course program fees, and travel expenses are the student's responsibility.**

HSMP 5020 Philosophy of Public Health (1 cr hr)

Introduces public health practice. **Prerequisite:** *Enrollment in the PharmD/MPH dual degree program. NOTE: CPH course fee is the student's responsibility.*

HSMP 5500 Health Service Administration (3 cr hrs)

Present managerial theory in a way that demonstrates its generic applicability to all types of health service organizations. Uses a process orientation that focuses on managerial functions, concepts, principles and roles within context of health care organizations. **Prerequisite:** *Enrollment in the PharmD/MPH dual degree program. NOTE: CPH course fee is the student's responsibility.*

IDMD 1940 Rural Health Research and Practice (3 credit hours)

Student and faculty teams in rural communities partner with communities to assess health priorities and develop plans to address identified needs. Students develop an understanding of interdisciplinary working relationships among health professional disciplines. Students will develop an understanding of issues associated with research involving human subjects and receive IRB Training.

IDMD 2950 Rural Community Based Health Project (3 credit hours)

In this course, students work in interdisciplinary teams to develop a community-based health proposal in collaboration with their rural community partners. Through implementing and evaluating the proposed community-based project, students gain hands-on experience in using participatory methods to promote the health of a selected rural population. Students enhance their formal presentation skills through presenting the results of their community-based project.

PMSY 6100 Pharmaceutical Analysis (3 cr hrs)

Covers topics related to pharmaceutical analysis for biological samples and dosage forms. Covers methods of separation and the various detectors that are coupled to these separation techniques. Also covers methods of sample preparation.

PMSY 6205 Advanced Drug Metabolism (3 cr hrs)

Covers biotransformation reactions, enzymes involved in the metabolism of drugs, methods used for studying drug metabolism, factors affecting hepatic clearance and inhibition and induction of drug metabolism. Also discusses methods used for studying drug metabolism and application of metabolism studies in drug development.

PMSY 6210 Advanced Pharmacokinetics (3 cr hrs)

Focuses on areas of pharmaceutical sciences and drug delivery at an advanced level. Includes topics of physical properties of drugs, ionic equilibria, solubility and related phenomena, drug diffusion and permeability, drug stability, interfacial phenomena, colloids, micromeritics, drug dissolution, and drug delivery system formulation and design.

PMSY 6220 Advanced Pharmaceutics (4 cr hrs)

Covers quantitative aspects of absorption, distribution, metabolism and elimination of drugs. Discusses the Laplace derivation of linear pharmacokinetic equations, use of computers in pharmacokinetics and advanced topics in preclinical and clinical pharmacokinetic. Emphasizes pharmacokinetic / pharmacodynamic modelling.

SPAN 1011 Beginning Spanish for Health Care I (3 credit hours)

A study of the four language skills of speaking, listening, reading and writing, with an emphasis on vocabulary and cultural situations appropriate for health care professions. This course does not satisfy high school deficiencies for students enrolled in areas other than health care professions.

SPAN 1021 Beginning Spanish for Health Care II (3 credit hours)

A continuation of the study of the four language skills of speaking, listening, reading and writing, with an emphasis on vocabulary and cultural situations appropriate for health care professions. This course does not satisfy high school deficiencies for students enrolled in areas other than health care professions. *Prerequisite: SPAN 1011*

Approved Online Electives at other Colleges and Universities

The following courses have been approved by the Curriculum Committee and Faculty Council of the Gatton College of Pharmacy. For further information, contact the Office of Academic Affairs.

PHA 505 Community Pharmacy Ownership (2 cr hrs)

Offered through Mercer University College of Pharmacy and Health Sciences. Provides student with information necessary to become a community pharmacy owner either through the establishment of a new pharmacy or the purchase of an existing pharmacy practice. **NOTE: Registration is through Mercer University, and student must transfer credit to GCOP after grade is posted. Tuition and fees are the student's responsibility. Prerequisite: Consultation with the Office of Academic Affairs.**

PHARM 720 Introduction to Nuclear Pharmacy (2 cr hrs)

Offered through The University of New Mexico Health Sciences Center College of Pharmacy. Provides an overview of nuclear pharmacy as a practice specialty. **NOTE: Registration is through UNM Health Sciences Center. UNM will issue certificate of completion to student who earns a final score greater than 70%. Certificate serves as documentation for student to receive transfer credit. Tuition and fees are the student's responsibility. Prerequisite: Consultation with the Office of Academic Affairs.**

PHRD 624 APhA Institute on Alcoholism & Drug Dependencies (2 cr hrs)

Provides information, motivation and guidance for student pharmacists who participate in or wish to become involved in state-level and campus-level programs; to help student pharmacists whose competence to perform their responsibilities has become impaired due to alcoholism or other drug dependencies. **NOTE: Registration is through Notre Dame of Maryland University, and student must transfer credit to GCOP after grade is posted. Tuition and fees are the student's responsibility.**

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<http://www.etsu.edu/trustees/members/board-members.php>

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Director of Enrollment and Student
Services

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Chair, Pharmacy Practice

David S. Roane, Ph.D.
Chair, Pharmaceutical Sciences

Adam C. Welch, PharmD, MBA
Associate Dean for Assessment and
Academic Affairs

FACULTY LISTING

Department of Pharmacy Practice

Lugo, Ralph A. (2006) Professor Chair
B.S. in Pharmacy (1988) Rutgers University
PharmD (1991) University of North Carolina Eshelman School of Pharmacy

Cross, Leonard B. (2010) Associate Professor Vice-Chair
B.S. in Pharmacy (1991) West Virginia University
PharmD (2000) University of Tennessee Health Sciences Center College of Pharmacy

Stewart, David W. (2007) Associate Professor Vice-Chair
PharmD (2003) Campbell University School of Pharmacy

Alexander, Katelyn (2012) Assistant Professor
PharmD (2011) The Ohio State University College of Pharmacy

Bossaer, John B. (2009) Associate Professor
PharmD (2007) Purdue University College of Pharmacy and Pharmaceutical Sciences

Bossaer, Larissa N. (2009) Associate Professor
PharmD (2007) Virginia Commonwealth University School of Pharmacy

Burchette, Jessica (2012) Assistant Professor
PharmD (2010) East Tennessee State University Gatton College of Pharmacy

Calhoun, Larry D. (2005) Professor
B.S. in Pharmacy (1972) University of Tennessee Health Sciences Center College of Pharmacy
PharmD (1973) University of Tennessee Health Sciences Center College of Pharmacy

Calhoun, McKenzie L. (2014) Assistant Professor
PharmD (2011) East Tennessee State University Gatton College of Pharmacy

Cluck, David (2011) Associate Professor
PharmD (2009) Auburn University

Covert, Kelly (2016) Assistant Professor
PharmD (2014) University of Tennessee College of Pharmacy

Flores, Emily K. (2008) Associate Professor
PharmD (2006) Medical University of South Carolina

Gray, Jeffrey A. (2008) Associate Professor
PharmD (1996) Mercer University Southern School of Pharmacy

Hagemeier, Nicholas (2011) Associate Professor
PharmD (2003) Purdue University
PhD (2012) Purdue University

Hess, Jr., Richard A. (2007) Associate Professor
B.S. (1992) University of South Florida
PharmD (1998) Mercer University Southern School of Pharmacy

Melton, Sarah (2012) Professor
B.S. in Pharmacy (1991) Virginia Commonwealth University School of Pharmacy
PharmD (1994) Virginia Commonwealth University School of Pharmacy

Mueller, Kathryn A. (2007) Assistant Professor
B.S. in Pharmacy (1989) University of Minnesota College of Pharmacy
PharmD (1990) University of Minnesota College of Pharmacy

Odle, Brian L. (2007) Associate Professor
B.S. (1990) Middle Tennessee State University
PharmD (1994) University of Tennessee Health Sciences Center College of Pharmacy

Thigpen, James C. (2007) Associate Professor
B.S. in Pharmacy (1990) Medical University of South Carolina
PharmD (1992) Medical University of South Carolina

Department of Pharmaceutical Sciences

Roane, David S. (2006) Professor Chair
B.A. in Journalism (1979) Drake University
B.S. in Zoology (1984) Louisiana Tech University
Ph.D. (1987) Louisiana State University Medical Center

Hurley, David L. (2007) Professor Vice Chair
B.S. in Biology & Physics (1979) Guilford College
M.S. (1982) Pennsylvania State University
Ph.D. (1986) Pennsylvania State University

Brown, Stacy D. (2007) Assistant Professor
B.S. (1998) University of Tennessee at Chattanooga
Ph.D. (2002) University of Georgia College of Pharmacy

Collins, Charles C. (2006) Professor
B.S. in Pharmacy (1977) West Virginia University
Ph.D. (1984) West Virginia University

Harirforoosh, Saeidreza (2007) Assistant Professor
PharmD (1991) Tehran University
Ph.D. in Pharmaceutical Sciences (2005) University of Alberta

Palau, Victoria E. (2007) Assistant Professor
B.A. (1979) Pontificia Universidad Javeriana
Ph.D. (1999) Florida International University

Panus, Peter C. (2007) Professor
B.A. (1979) Huntingdon College
B.S. (1981) University of South Alabama
B.S. in Physical Therapy (1994) University of South Alabama
Ph.D. (1985) University of South Alabama

Pond, Brooks B. (2007) Assistant Professor
B.S. (2000) Centre College
Ph.D. (2004) Duke University Medical Center

Faculty Affiliates

College of Medicine

Duffourc, Michelle M. (1998) Associate Professor, Pharmacology
B.S. (1985) University of South Alabama.
Ph.D. (1993) University of South Alabama

Ordway, Greg A. (2005) Professor and Chair, Pharmacology
B.S. (1980) Ohio State University
Ph.D. (1985) Ohio State University

Robinson, Mitchell E. (1985) Professor, Biochemistry and Molecular Biology and
Associate Dean for Graduate Studies; Adjunct Faculty, Biological Sciences
B.S. (1976) University of North Carolina, Chapel Hill
M.S. (1978) Western Carolina University
Ph.D. (1983) Wake Forest University Bowman Gray School of Medicine

Rusinol, Antonio E. (1996) Assistant Professor, Biochemistry and Molecular Biology
B.Sc. (1983) National University of Tucuman, Tucuman, Argentina
Ph.D. (1990) National University of Tucuman, Tucuman, Argentina

Thewke, Douglas P. (1996) Associate Professor, Biochemistry and Molecular Biology
M.Sc. (1990) Central University of Pondicherry
M.Phil. (1992) Central University of Hyderabad
Ph.D. (1995) Central University of Hyderabad

College of Public Health

Chakraborty, Ranjan N. (2001) Associate Professor and Chair, Health Sciences

B.S. (1979) Gujarat University, India

M.S. (1981) University of Baroda, India

Ph.D. (2003) Sardar Patel University, India

Mustain, Eric L. (1990) Associate Professor, Health Sciences

B.A. (1974) University of Missouri-Columbia

Ph.D. (1984) University of Colorado Health Sciences Center

Adjunct Faculty

Aultman, Whitney A. (2017) Clinical Assistant Professor

Department of Pharmacy Practice

PharmD (2015) Ferris State University

Gmyrek, Dan (2011)

Department of Pharmacy Practice

B.S. in Pharmacy (1981) University of New Mexico

M.S. in Pharmacy (1983) University of North Carolina School of Pharmacy

Kanel, Jeffrey (2008)

Department of Pharmaceutical Sciences

CEO, Renewal Algal Energy

B. S. (1985) Chemical Engineering, University of Akron

M. S. (1986) Chemical Engineering, Georgia Institute of Technology

Ph.D. (1990) Chemical Engineering, Georgia Institute of Technology

Latham, Keith (2011)

Department of Pharmaceutical Sciences

President & Chief Scientist, ITL Pharma

B.S. (1968) Biophysics, California State University at Los Angeles,

PhD (1974) Neurobiology of Aging, University of Southern California

Nelson, Brooklyn (2015) Clinical Assistant Professor

Department of Pharmacy Practice

PharmD (2013) Purdue University College of Pharmacy

Singleton, Abby (2016) Clinical Assistant Professor

Department of Pharmacy Practice

PharmD (2013) Ohio Northern University

Tewell, Ryan B. (2017) Clinical Assistant Professor

Department of Pharmacy Practice

PharmD (2014) Butler University College of Pharmacy and Health Sciences

Trotter, Jennifer (2016) Clinical Assistant Professor
Department of Pharmacy Practice
PharmD (2012) Samford University, McWhorter School of Pharmacy

Walls, Zachary (2011)
Department of Pharmaceutical Sciences
B.S. (2001) Tulane University
Ph.D. (2007) UCLA School of Medicine

White, Elicia (2017) Clinical Assistant Professor
Department of Pharmacy Practice
PharmD (2015) East Tennessee State University Bill Gatton College of Pharmacy