<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>TA 101</td>
<td>INTRODUCTION TO THEATRE: PRINCIPLES AND PRACTICE.</td>
<td>The cultivation of judgment, perception and creative response to theatre, with emphasis on what and how theatre communicates through examination of both the processes and product of theatre.</td>
</tr>
<tr>
<td>TA 126</td>
<td>ACTING I: FUNDAMENTALS OF ACTING.</td>
<td>A broad spectrum of skills will be explored in the creative process of acting ensemble. These skills include improvisation, movement disciplines (including theatre games, modern dance, and characterization), emotional and sensory awareness, and the process of integrating these into a clearly defined stage technique. Lecture, three hours; laboratory, two hours per week.</td>
</tr>
<tr>
<td>TA 150</td>
<td>FUNDAMENTALS OF DESIGN AND PRODUCTION.</td>
<td>A comprehensive study of the basic organizational structure, processes and techniques involved in theatre design, technology and management with particular reference to the UK Theatre.</td>
</tr>
<tr>
<td>TA 191</td>
<td>PERFORMANCE PRACTICUM.</td>
<td>The study and practice of acting and directing through rehearsal and performance. May be repeated to a maximum of two credits. Pass/fail only. Prereq: Consent of instructor and filing of prospectus.</td>
</tr>
<tr>
<td>TA 225</td>
<td>VOCAL PRODUCTION FOR THE STAGE I.</td>
<td>The theory and practice of stage diction. Mastery of these vocal techniques will lead the student to the eradication of regional speech patterns, an appreciation of vocal craft and discipline and an awareness of the diversity of vocal expression.</td>
</tr>
<tr>
<td>TA 226</td>
<td>ACTING II: SCENE STUDY (REALISM).</td>
<td>A lecture/laboratory course concentrating on several components of the acting process: preliminary study in modern acting theories, Stanislavski to the present; textual analysis, character study and scene work; studio exercises aimed at refining rehearsal skills for the actor. Lecture, two hours; laboratory, four hours per week. Prereq: TA 126 or equivalent.</td>
</tr>
<tr>
<td>TA 227</td>
<td>ACTING III: SCENE STUDY (STYLES).</td>
<td>A continuation of TA 226, with continued emphasis on developing the actor’s skills in analysis and rehearsal. This course will introduce the actor to a performance style other than realism. Lecture, two hours; laboratory, four hours per week. Prereq: TA 226 or equivalent.</td>
</tr>
<tr>
<td>TA 260</td>
<td>STAGECRAFT.</td>
<td>Study of theory, principles and techniques of stage construction. Assignments in laboratory and backstage during rehearsals and performances. Lecture, two hours; laboratory, five hours. Prereq: TA 150 or consent of instructor.</td>
</tr>
<tr>
<td>TA 264</td>
<td>MAKEUP FOR THE THEATRE.</td>
<td>Theory and practice in the principles, materials and application of makeup. Lecture, two hours; laboratory, two hours. Prereq: TA 150 or consent of instructor.</td>
</tr>
<tr>
<td>TA 265</td>
<td>COSTUME CONSTRUCTION.</td>
<td>A study of the principles and techniques of costume construction. Lecture, one hour; laboratory, three hours per week. Prereq: TA 150.</td>
</tr>
<tr>
<td>TA 267</td>
<td>LIGHTING AND SOUND TECHNOLOGY.</td>
<td>An introduction to lighting and sound practice in today’s theatre. Lighting topics include use and maintenance of lighting equipment, photometrics, basic theatrical wiring and modern theatre systems. Sound topics include use of sound equipment for enhancement and reinforcement of theatrical productions and basic sound editing. Lecture, three hours; laboratory, two hours per week.</td>
</tr>
<tr>
<td>TA 272</td>
<td>PRINCIPLES OF STAGE DRAFTING.</td>
<td>Principles of stage drafting: tools and symbols, dimensioning, cabinet drawings, lettering, floor plans, elevations, sections, details, isometrics, obliques, orthographic projections, metrics, and conversion and perspective. Two hours lecture; two hours laboratory. Prereq: TA 150 or consent of instructor.</td>
</tr>
<tr>
<td>TA 280</td>
<td>SCRIPT ANALYSIS.</td>
<td>A course focusing upon dramatic literature as a composition for theatrical performance. Text interpretation will cover approaches used by practitioners of theatre art directors, designers, and actors.</td>
</tr>
<tr>
<td>TA 310</td>
<td>AUDITION TECHNIQUES.</td>
<td>This class will provide actors with practical information on the “business” of acting. It will address networking strategies, interviewing tactics, headshots, resumes, and representations. Each student will prepare a personal repertoire of audition material. Lecture, two hours; laboratory, two hours per week. May be repeated to a maximum of nine hours. Prereq: TA 226 and TA 227.</td>
</tr>
<tr>
<td>TA 320</td>
<td>THEATRE MOVEMENT I.</td>
<td>The study and practice of principles, techniques, and exercises employed in one or more of the following areas of theatre movement: mime, mask, stage fencing, combat, clowning and circus techniques, and period movement. Laboratory, six hours per week. Prereq: Major and consent of instructor.</td>
</tr>
<tr>
<td>TA 321</td>
<td>THEATRE MOVEMENT II.</td>
<td>A continuation of TA 320. Laboratory, six hours per week. Prereq: TA 320 and consent of instructor.</td>
</tr>
<tr>
<td>TA 325</td>
<td>TOPICS IN MOVEMENT.</td>
<td>The study, practice, and principles of various theatre movement techniques, including Period Movement, Musical Theatre Dance, and other dance styles applicable to theatre. Lecture, one hour; laboratory, five hours per week. May be repeated to a maximum of six credits. Prereq: TA 320.</td>
</tr>
<tr>
<td>TA 326</td>
<td>ACTING IV: CLASSICAL STYLES.</td>
<td>Concentrated training in styles of language, movement, and manners from various historical periods in theatre. Representative scenes will be chosen from among the following periods: Classical Greek, Commedia dell’Arte, Elizabethan, French Neo-Classic, Restoration, Eighteenth and Nineteenth Centuries. Lecture, two hours; laboratory, four hours per week. Prereq: TA 226, B.F.A. candidate (acting concentration) or consent of instructor.</td>
</tr>
<tr>
<td>TA 327</td>
<td>ACTING V: EUROPEAN REALISM.</td>
<td>A continuation of TA 326. Intensified study of acting styles and techniques from selective major acting periods stressing their relationships to the present. Intensive and individual coaching sessions. Lecture, two hours; laboratory, four hours per week. Prereq: TA 326, B.F.A. candidate (acting concentration) or consent of instructor.</td>
</tr>
<tr>
<td>TA 330</td>
<td>THEATRE DIRECTING I.</td>
<td>Discussion and practice of the director’s basic techniques, methods and responsibilities. Study of movement, interpretation of line, use of stage areas, use of levels, script analysis, and understanding dramatic action. Lecture, two hours; laboratory, two hours per week. Prereq: Major or consent of instructor.</td>
</tr>
<tr>
<td>TA 345</td>
<td>RENDERING.</td>
<td>A studio course to develop or improve rendering skills with relation to theatrical design. Rendering for scenery, costume, and lighting design are explored. May be repeated to a maximum of 6 hours. Lecture, one hour; studio, four hours per week. Prereq: A-S 102 or consent of instructor.</td>
</tr>
<tr>
<td>TA 350-352</td>
<td>TOPICS IN THEATRE.</td>
<td>Reading, research, lecture and/or discussion in various areas of theatre history, technology and practice. May be repeated three times for a maximum of 12 hours when identified by different course subtitles. Prereq: Major or consent of instructor.</td>
</tr>
<tr>
<td>TA 360</td>
<td>STAGECRAFT II.</td>
<td>Study of theory, principles and practices of advanced problems in stage construction. Three hours lecture per week. Four hours laboratory per week. Prereq: TA 260 or consent of instructor.</td>
</tr>
<tr>
<td>TA 365</td>
<td>COSTUME DESIGN.</td>
<td>A lecture/studio course to teach basic skills in costume design through analysis, collaboration, research, and rendering. Lecture, one hour; studio, four hours per week. Prereq: TA 150.</td>
</tr>
<tr>
<td>TA 367</td>
<td>LIGHTING DESIGN.</td>
<td>Theory, practice and design of lighting for the theatre. Examination of the practical and aesthetic requirements of lighting through research and analysis. Application of theory to light in a variety of contexts including theatre, opera, musicals and concerts. Lecture, three hours; laboratory, three hours per week. Prereq: TA 150, TA 267, or consent of instructor.</td>
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</table>
TA 374 SCENE DESIGN. (3)
Process of evolving a scenic design through play analysis, research, metaphorical association and the assimilation of theatrical art forms against practical prescribed limitations. Practice in developing floor plans, elevations and simple sketching techniques. Lecture, two hours; laboratory, two hours. Prereq: TA 150 or consent of instructor.

TA 380 HISTORY OF THE THEATRE I. (3)
A study of the theatre from primitive times through the Elizabethan period. Theatre and stage architecture, scene design, costuming and acting styles are discussed and their relation to dramatic literature analyzed.

TA 381 HISTORY OF THE THEATRE II. (3)
A continuation of TA 380; a study of the theatre from the Jacobean period to the present.

TA 382 AMERICAN THEATRE. (3)
This course surveys American theatre history, giving particular emphasis to the late nineteenth and twentieth centuries. It examines both theatre practice and dramaturgy, and places them within an historical, social, and cultural context.

TA 387 SEMINAR IN THEATRE. (3)
Advanced reading and discussion in theatre theory and criticism. May be repeated to a maximum of 12 credits when identified by different course subtitles. Prereq: Major or consent of instructor.

TA 390 PRODUCTION PRACTICUM. (1)
The study and practice of production techniques through rehearsal and performance. May be repeated to a maximum of four credits. At least two hours production related activities per week. Pass/fail only. Prereq: Consent of instructor and filing of prospectus.

TA 391 PERFORMANCE PRACTICUM. (1)
The study and practice of acting and directing through rehearsal and performance. May be repeated to a maximum of four credits. At least two hours performance related activities per week. Pass/fail only. Prereq: Consent of instructor and filing of prospectus.

TA 395 INDEPENDENT WORK. (1-3)
For undergraduate majors in theatre arts. Pursue independent work under the guidance of a faculty member. Write a paper embodying the results of his research study and take an examination. May be repeated to a maximum of 12 credits. Prereq: Major, filing of prospectus at time of registration, and consent of chairperson.

TA 396 SUMMER THEATRE. (3)
Concentrated practical experience in the UK Summer Theatre program. May be repeated to a maximum of six credits. Eight hours laboratory per week. Prereq: Consent of department by audition or interview.

TA 397 SUMMER THEATRE. (3)
Concentrated practical experience in the UK Summer Theatre program. May be repeated to a maximum of six credits. Eight hours laboratory per week. Prereq: Consent of department by audition or interview.

TA 399 FIELD BASED/COMMUNITY BASED EDUCATION. (1-15)
A community-based or field-based experience in theatre, under the supervision of a faculty member. May be repeated to a maximum of 15 credits. Prereq: Consent of instructor and department chairperson; completion of departmental learning agreement. (Approval of Dean of Fine Arts required for more than six credits per semester.)

TA 411 TEACHING OF THEATRE ARTS. (3)
A course designed to introduce teachers and community theatre workers to the problems of staging under circumscribed conditions; minimum essentials of play production and the means of supplying these needs. Required of all certification students.

TA 426 INTERMEDIATE ACTING STYLES. (3)
An extension of TA 330 with an emphasis on analysis and practice. Lecture, two hours; laboratory, two hours per week. Prereq: TA 330 or consent of instructor.

TA 495 SENIOR PROJECT. (3)
An independent study project required of all senior majors. Designed to enable the student to demonstrate knowledge, skill and creativity in a particular area of theatre. Specific nature of project to be developed in collaboration with a faculty project adviser. Final project may be either a written or performed presentation. Prereq: Major/senior standing/ filing of prospectus at time of registration.

TA 516 PLAYWRITING. (3)
A course designed for students interested in creative drama. The completion of at least one play is required. May be repeated to a maximum of six credits. Prereq: Consent of instructor.

TA 524 DIALECTS FOR THE STAGE. (3)
The theory and practice of stage dialects for the American actor as it pertains to interpreting the role. Prereq: TA 225 or consent of instructor.

TA 525 VOCAL PRODUCTION FOR THE STAGE. (3)
A continuation of TA 523. Intensified work to develop, release and expand the dynamics of the voice in relationship to the actor’s needs. Individual coaching in specific roles and dialects and remedial help for individual problems. Prereq: TA 225 or consent of instructor.

TA 530 THEATRE DIRECTING III. (3)
Analysis and direction of the characteristics of genre and styles. Intensive application of techniques studied in TA 430. Lecture, two hours; laboratory, two hours per week. Prereq: TA 430 or consent of instructor.

TA 570 ADVANCED STUDY IN DESIGN AND TECHNOLOGY. (3)
A continuation of course work in a student’s chosen area of design and production (scenery, costumes, or lighting). The first half of the course will focus on design, and the second half on the production of design. Lecture, one hour; studio, four hours per week. May be repeated to a maximum of six credits. Prereq: TA 260, TA 265, TA 267, and one of the following: TA 365, TA 367, or TA 374; senior standing.

TA 590 PRODUCTION PRACTICUM. (1)
The study and practice of production techniques through rehearsal and performance. May be repeated to a maximum of two credits. Prereq: Consent of instructor and filing of prospectus.

TA 591 PERFORMANCE PRACTICUM. (1)
The study and practice of acting and directing through rehearsal and performance. May be repeated to a maximum of two credits. Prereq: Consent of instructor and filing of prospectus.

TA 600 READINGS IN THEATRE. (3)
A program of supervised readings to provide graduate students with an in-depth comprehension of selected areas of theatre. May be repeated to a maximum of six credits. Prereq: Graduate standing.

TA 610 CRITICAL THEORIES AND PERFORMANCE. (3)
This class introduces students to critical theories of performance and production and to the various issues raised by the professional production of selected plays. May be repeated to a maximum of six credits.

TA 620 APPLIED RESEARCH IN THEATRE (Subtitle required). (3)
This course focuses on the application of performance/production research to the actual production of a dramatic text. Students will investigate the work of a selected writer, examine critical and historical materials relative to that writer, and then apply this research to the production of one play. The play will be produced as a part of the department’s Studio Season. May be repeated to a maximum of six credits.

TA 625 ADVANCED STYLes OF ACtiNg. (3)
The rehearsal and performance of scenes and class exercises in improvisation to develop creative imagination as a basis for acting. Lecture, three hours; laboratory, two hours. May be repeated to a maximum of six credits. Prereq: Consent of instructor.

TA 650 TOPICS IN AMERICAN THEATRE (Subtitle required). (3)
Selected topics in contemporary and historical American Theatre. May be repeated to a maximum of six credits.

TA 660 STUDIES IN TECHNICAL THEATRE: PRODUCTION. (3)
Problems in advanced sceno-graphic techniques including drafting for the theatre, period composition and design, translation of the design into actuality, planning and laying out the technical schedule. Prereq: Consent of instructor. May be repeated to a maximum of six credits.

TA 661 STUDIES IN TECHNICAL THEATRE: LIGHTING. (3)
Investigation and critical evaluation of lighting practice and artistry in the contemporary theatre. May be repeated to a maximum of six credits. Prereq: Consent of instructor.

TA 692 STUDIES IN DIRECTING. (1-3)
Experience in directing a full-length production for the Department of Theatre including the submission of a prompt book and production log. May be repeated to a maximum of six credits. Prereq: Consent of chairperson.

TA 748 MASTER’S THESIS RESEARCH. (0)
Half-time to full-time work on thesis. May be repeated to a maximum of six semesters. Prereq: All course work toward the degree must be completed.

University of Kentucky 2001-2002 Undergraduate Bulletin
### TEL Communications

**TEL 101 Telecommunications I: Mass Communication Systems.**
An overview of electronic technologies used for mass communication, emphasizing their historical development and interrelationships with economics, policy, and society. These include broadcast radio, television, and cable, as well as newer technologies such as wireless cable, HDTV, and other multi-channel video systems. The convergence of technologies is addressed in the treatment of two-way systems now being used for mass communication, including the Internet, World Wide Web, and other interactive communication systems. (3)

**TEL 201 Telecommunications II: Interactive Communication Systems.**
An overview of electronic technologies used primarily for personal communication, emphasizing their historical development and interrelationships with economics, policy, and society. These include telephony, voice mail, and teleconferencing technologies, as well as electronic mail and other text-, voice-, and video-based communication systems. The convergence of technologies is addressed in the treatment of two-way systems now being used for mass communication, including the Internet and the World Wide Web. (3)

**TEL 300 Telecommunications Research Methods.**
An introduction to quantitative and qualitative social science research relating to telecommunications, including survey and experimental methods. Prereq: TEL 101, TEL 201, STA 200. (3)

**TEL 310 Telecommunications Policy and Regulation.**
A study of policy and regulation of telecommunications in the U.S., primarily broadcasting, cable, telephony, and the Internet. This includes traditional issues in the regulation of content, such as freedom of speech, copyright, obscurity, and privacy. It also includes traditional areas in the regulation of the industry structure including monopolies, licensing, cross ownership rules, mergers, and illegal practices. Prereq: TEL 101, TEL 201. (3)

**TEL 312 Video Production I.**
An introduction to the fundamentals of studio video production, from conception to completed product. Practical training with essential production equipment will be offered. Lecture, two hours; laboratory, two hours per week. Prereq: TEL 101, TEL 201 and major status. (3)

**TEL 319 World Media Systems.**
A comparison of the communications media in different countries of the world and the theories used to justify them. How various political and social systems affect the media and how the media affect the societies in which they exist. Prereq: COM 101, TEL 101 or consent of instructor. (Same as COM/JOU 319.) (3)

**TEL 320 Telecommunications Program Analysis.**
This course is designed to assist students in developing criteria for analyzing the structure and content of cable and broadcast program material, and for analyzing the relationships of audiences, programs, and American telecommunications systems. Prereq: TEL 101. (3)

**TEL 322 Multimedia I.**
Introduction to techniques of multimedia production and the basic principles of communication via multimedia. Practical, hands-on experience with various media used in computer-based multimedia including: text, still graphics, motion graphics, animation, sound, and hyperlinking. Includes stand-alone computer- and Web-based applications. Lecture, two hours; laboratory, two hours per week. Prereq: TEL 101, TEL 201, standing as a major in the School of Journalism and Telecommunications. (3)

**TEL 355 Communication and Information Systems in Organizations.**
An examination of the role of a variety of communication and information systems used in organizations. This includes the study of communication processes across a variety of systems, including the telephone, e-mail, voice mail, and audio- and video-conferencing. It also includes an examination of the uses for a variety of information systems and technologies, including computer networks, integrated voice response systems, computer-telephony integration, call centers, automated attendants, voice recognition, and synthesis, database management systems, and a variety of additional hardware and software tools used in business today. Prereq: TEL 201 or consent of instructor. (3)

**TEL 390 Telecommunications Topical Seminar (Subtitle required).**
In-depth seminar approach to a single topical issue in telecommunications. Different topical issues each offering. Course will be offered on demand. May be repeated to a maximum of six credits under a different subtitle. Prereq: Consent of instructor. (3)

**TEL 412 Video Production II.**
A follow-up to TEL 312, this course is an advanced video production course focusing on electronic field production (EFP). This course features technical and creative aspects of directing, camera work, editing, and lighting. Lecture, three hours; laboratory, one hour per week. Prereq: TEL 312 or consent of instructor. (3)

**TEL 420 Electronic Media Criticism.**
Examination of each of several critical theories and approaches to the criticism of telecommunications program content. Practical experience in evaluating critical writing and in the writing of critical pieces. Prereq: Telecom major status or permission of instructor. (3)

**TEL 432 Audio Production.**
Elements of audio production, including basic machines, microphones, patch panels, the production mixing. Different audio products are discussed. Lecture, two hours; laboratory, two hours per week. Prereq: TEL 101, TEL 201, or major status in School of Journalism and Telecommunications. (3)

**TEL 442 On-Air Performance.**
Offers the students the unique opportunity to develop essential skills for professional on-air performance. Development of on-camera presence, pleasing and articulate vocal presentation and a thorough understanding of the performer’s radio and television performance are covered. Lecture, two hours; laboratory, two hours per week. Prereq: TEL 101, TEL 201, or major status. (3)

**TEL 453 Mass Communication and Social Issues.**
A course devoted to the examination of criticism of the mass media and an evaluation of the relationship of mass communication to contemporary social issues. Prereq: COM 249 or TEL 101. (Same as COM 453.) (3)

**TEL 482 Electronic Media Sales Management.**
The data and techniques of radio and television advertising, including problems of coverage and circulation, spot campaigns, testing, time buying, the agency, measuring broadcast effectiveness, merchandising radio and television advertising and time selling. Prereq: TEL 320 or consent of instructor. (3)

**TEL 504 Media Organizations.**
An examination of the structure of video entertainment and on-line communications organizations and industries. Includes the organization and management of various types of telecommunications properties, as well as their traditional and new competitors. Prereq: TEL 310 or consent of instructor. (3)

**TEL 510 Media Economics.**
Exploration of the economies of information industries, with particular attention to the special characteristics of information, the economic behavior of communications channels, and the role of information in decision making, the economy, organizational behavior, and other domains. Prereq: TEL 310 or consent of instructor. (3)

**TEL 520 Social Effects of the Mass Media.**
An examination of the political, social, cultural and behavioral effects of telecommunications systems in American society. Focus on theory and empirical research generated since 1940. Prereq: TEL 300 or equivalent. (3)

**TEL 525 Theory of Multimedia.**
This course is an advanced treatment of theories and principles of computing, electronic communication, personal communication, and interactivity. Covers basic aspects of computer architecture, multimedia software, information representation, transmission, error detection and correction, user interface issues, and computer-based communication. Emphasis on applying principles and theories to the production of multimedia. Prereq: TEL 322. (3)
TOX 508 RESEARCH METHODS IN TOXICOLOGY. (1-3)
The course provides students with ‘hands on’ experience in research methods used to solve toxicological problems. Students will be under the direction of a GCT faculty member, who will supervise the student’s efforts on a research project. The student will be trained not only in the ‘hands on’ techniques but also in how to independently design and interpret research experiments. Students will prepare a final report on their research project, which will be designed to provide instruction and training in preparing ‘publication-style’ research reports. This course is distinct from ‘topical seminar’ or ‘library survey’ courses, since such courses are not ‘hands on’ in experimental methods. May be repeated to a maximum of six credits. Laboratory, two-six hours per week. Prereq: Status as upperclass undergraduate, post bac, or graduate student.

TOX 509 BIOCHEMICAL AND ENVIRONMENTAL TOXICOLOGY. (3)
Presentation of basic and advanced concepts to provide an integrated description of toxicology, its scope, the unique application of principles that characterize it as a science, and its professional practice. Emphasis will include the influence of federal regulations on the practice of toxicology. Prereq: BCH 501 and PHA 522 or equivalents or consent of instructor.

TOX 560 ENVIRONMENTAL PHYSIOLOGY AND TOXICOLOGY. (4)
Emphasis will be placed on the physiological and toxicological effects of chemicals on natural biota, including considerations at cellular, organismal, population, and community levels. This will include assimilation and metabolism of pollutants by animal species, with emphasis upon biochemical and physiological mechanisms involved in stress-induced responses and stress reduction. Additional areas of concern will include the transport, fate, and effects of chemical stressors on structure and function of biotic communities and will include introductions to ecotoxicology and environmental regulatory strategies. Lecture, three hours; recitation, two hours per week. Prereq: BIO 350 or PGY 502 or equivalent or consent of instructor. (Same as BIO 560.)

TOX 600 ETHICS IN SCIENTIFIC RESEARCH. (2)
The course will commence with an overview of good laboratory practices and present them as the basis of good scientific research, along with an overview of quality assurance and appropriate practices in data analysis and data interpretation. The course will then move to the ethics of human and animal experimentation and discuss the concepts of data and intellectual property, their ownership and access to them. The problems of reviewing other workers’ intellectual property such as grant applications, research papers, and other intellectual property will be addressed. Prereq: Research experience; consent of instructor. (Same as VS 690.)

TOX 645 NEUROTOXICOLOGY. (2)
Multidisciplinary discussions of the major sites and mechanisms of drug/chemical-induced nervous system toxicity. Presentations by faculty and graduate students. Prereq: BCH 501 and 502, PGY 502 and PHA 522 or equivalent and consent of instructor. (Same as PHR 645.)

TOX 649 ADVANCED MOLECULAR PHARMACOLOGY. (2)
This course will provide in-depth coverage of the molecular pharmacology of growth factors, transcription factors, receptors, and ion channels. Emphasis will be placed on both the normal functions of these cell-signaling molecules and perturbations that result in several prevalent human diseases, including cancer, Alzheimer’s, diabetes, osteoporosis, and inherited human illnesses. Students will be introduced to experimental approaches to diagnosing and treating these illnesses in the light of our evolving knowledge of molecular pharmacology. Prereq: IBS 601-606 or consent of instructor. (Same as PHA/PHR 649.)

TOX 660 CLINICAL TOXICOLOGY AND DRUG MONITORING. (3)
A lecture and demonstration course designed to acquaint the student with the two main areas of clinical toxicology. The first part of the course will cover the scope of the drug abuse problem in the U.S.A. and detail the emerging role of the clinical toxicologist in dealing with a wide variety of analytical and medicolegal problems associated with illicit drug detection. The second part of the course will cover the rapidly expanding area of clinical toxicology which deals with the monitoring of therapeutic drugs as they relate to the appropriate clinical management of patients. Prereq: BCH 501 and 502, PHA 521 and 522 or equivalent with consent of instructor. (Same as PAT 660.)

TOX 663 DRUG METABOLISM AND DISPOSITION. (2)
Drug metabolism and disposition. Lectures and discussion of the chemistry and biochemical drug biotransformation with emphasis on the mixed-function oxidase system. Prereq: BCH 401G or 501, 502 or consent of instructor. (Same as PHA 663.)

TOX 670 CHEMICAL CARCINOGENESIS. (3)
Lectures and discussion of the chemical and biochemical reactions of chemical carcinogens and their metabolites. Prereq: CHE 232, PHR 400; or BCH 501, 502. (Same as PHA 670.)

TOX 680 MOLECULAR MECHANISMS IN TOXICOLOGY. (5)
An intensive examination of the chemistry and action of substances which adversely affect living systems, and consideration of means of lessening their impact on man and the environment. Prereq: TOX 509 or consent of Director of Graduate Studies.

TOX 690 PRACTICAL ANALYTICAL TOXICOLOGY. (3)
An evaluation of techniques for the isolation, identification, and quantitation of drugs, pesticides and other toxicants in biological samples. Concepts and theory will be presented in the lecture portion, while the laboratory portion will be devoted to actual sample analysis by the students. Lecture, 1 hour; laboratory, six hours. Prereq: Consent of the instructor and graduate standing in toxicology. (Same as VS 690.)

TOX 748 MASTER’S THESIS RESEARCH. (0)
Half-time to full-time work on thesis. May be repeated to a maximum of six semesters. Prereq: All course work toward the degree must be completed.

TOX 749 DISSERTATION RESEARCH. (0)
Half-time to full-time work on dissertation. May be repeated to a maximum of six semesters. Prereq: Registration for two full-time semesters of 769 residence credit following the successful completion of the qualifying exams.

TOX 769 RESIDENCE CREDIT FOR THE MASTER’S DEGREE. (1-6)
May be repeated to a maximum of 12 hours.

TOX 770 TOXICOLOGY SEMINAR. (0-1)
A specialized seminar focusing on current topics of toxicological significance. Registration each fall and spring semester required of all toxicology majors until residency requirements for the degree have been completed. May be repeated to a maximum of three times during a semester and for a maximum number of two credits during entire graduate course work.

TOX 780 SPECIAL PROBLEMS IN TOXICOLOGY. (2)
Exposure to and actual research experience in an area of toxicology other than that encountered by students in their thesis and dissertation research. May be repeated to a maximum of six credits. Prereq: Consent of graduate adviser.