Courses of Instruction

Lewis College of Business
College of Education and Human Services
College of Fine Arts
College of Information Technology and Engineering
College of Liberal Arts
College of Nursing and Health Professions
College of Science
W. Page Pitt School of Journalism and Mass Communications
Joan C. Edwards School of Medicine

Courses listed in this catalog are subject to change through approved academic channels. New courses and changes in existing coursework are initiated by the particular departments or programs, approved by the appropriate academic dean and/or curriculum committee, by the Faculty Senate, and the president.

Before the beginning of each semester, a “Schedule of Courses” is printed announcing the courses that will be offered by the college and schools. Copies may be obtained in the Registrar’s Office and at various sites on campus.

STANDARDIZED COURSE LISTINGS

All departments include among their offerings the following undergraduate course numbers and titles:

- 280-283 Special Topics. 1-4 hrs.
- 297-298 Instructional TV Courses. 1-4 hrs.
- 480-483 Special Topics. 1-4 hrs.
- 485-488 Independent Study. 1-4 hrs.
- 497-498 Instructional TV Courses. 1-4 hrs.

Departments that offer practica and internships use the following undergraduate course numbers:

- Internship. 290, 490.

ABBREVIATIONS

| PR | Prerequisite |
| CR | Corequisite |
CR/NC Credit/Non-Credit grading
Lec-lab. Lecture and laboratory hours per week (e.g. 2 lec-4 lab. means two
hours lecture and four hours laboratory per week).
Rec: Recommended
I,II,S: Offered first semester, second semester, summer.

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and Technology ........................................... 352
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and Library Science ...................................... 351
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ACCOUNTANCY (ACC)

215 Principles of Accounting. 3 hrs. I, II, S.
Introduction to principles and procedures of double entry accounting records and reports.

216 Principles of Accounting. 3 hrs. I, II, S.
Introduction to principles and procedures of double entry accounting records and reports. (PR: ACC 215)

280-281 Special Topics. 1-4; 1-4; hrs.

311 Intermediate Accounting. 3 hrs. I, II, S.
Principles and problems of valuation, analysis, and formal presentation of accounting data. (PR: ACC 216, MGT 218, MTH 203)

312 Intermediate Accounting. 3 hrs. I, II, S.
Principles and problems of valuation, analysis, and formal presentation of accounting data. (PR: ACC 311)

318 Cost Accounting I. 3 hrs. II, S.
A study of fundamental cost accounting concepts and objectives including product cost accumulation, cost-volume-profit analysis, direct costing, budget techniques, standard costing, and differential cost analysis. (PR: ACC 216, MGT 218, MTH 203)

348 Federal Taxation. 3 hrs. I, S.
Problems and procedures of income tax accounting (PR: ACC 216, MGT 218, MTH 203)

358 Managerial Accounting for Health Care Management. 3 hrs. II.
A study of financial planning and control and discharge of financial management accountabilities in the Health Care Administration sector through problem solving and related functions of Accounting. (PR: ACC 216, MGT 218, MTH 203)

410 Financial Accounting. 3 hrs. I, II.
Principles, concepts, and problems underlying the evaluation, recording, analysis and interpretation of accounting data. Required of all M.B.A. candidates who have had little or no undergraduate background in accounting. NOT OPEN TO STUDENTS IN THE LEWIS COLLEGE OF BUSINESS.

412 Governmental Accounting. 3 hrs. II.
A study of the use of accounting information in the financial management of governmental and nonprofit entities. (PR: ACC 216, MGT 218, MTH 203)

414 Advanced Accounting Problems. 3 hrs. I.
Selected problems in advanced accounting principles and procedures. (PR: ACC 312)

415 Controllership. 3 hrs.
A comprehensive study of the controller's objectives, responsibilities, functions, organizational roles, etc. (PR: ACC 318)

418 Managerial Accounting. 3 hrs. I.
The managerial approach to budgetary control. (PR: ACC 318)

429 Auditing I. 3 hrs. I, S.
A study of the theory and procedures of auditing and the legal and social responsibilities of the auditor. (PR: ACC 312)

430 Auditing Theory and Research. 3 hrs. II.
A critical examination of contemporary professional attestation theory and practice including a comprehensive review of AICPA statements on audit procedures. (PR: ACC 429)

441 Accounting Information Systems. 3 hrs. II.
Introduction to accounting systems. Emphasis on concepts of analysis, design, and implementation of accounting systems with attention on internal and audit trail. (PR: ACC 311)

448 Federal Income Tax II. 3 hrs. II.
Advanced course in taxation with emphasis on corporations, partnerships, estates, trusts, gifts, valuation and liquidity problems, and tax administration and practice. (PR: ACC 348)

451 Accounting Theory. 3 hrs. I.
An examination of accounting concepts, standards, rates, conventions, principles and practices with primary emphasis on study of authoritative pronouncements comprising generally accepted accounting principles. Capstone Course (PR: ACC 312)

480-482 Special Topics. 1-4; 1-4 hrs.
Study of an advanced topic not normally covered in other courses. Accounting majors only, with permission of Division.

485-486 Independent Study. 1-4; 1-4; hrs.
(PR: Permission of Division Head)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>307</td>
<td>Internship</td>
<td>3-12</td>
<td>A supervised internship in which the student works for a business firm/agency to gain practical experience in the student’s major. The program of work and study will be defined in advance and the student’s performance will be evaluated. This course may not be used as an accounting elective. (PR: Permission of Dean)</td>
</tr>
<tr>
<td>280-283</td>
<td>Special Topics</td>
<td>1-4</td>
<td>The course is planned to give prospective Marketing Education Teacher-Coordinators an overview of the Marketing Education Program: its history and development, its mission, premises, and objectives, and activities of a Marketing Education program and requirements for persons employed in this field.</td>
</tr>
<tr>
<td>105</td>
<td>Introduction to Marketing Education</td>
<td>3</td>
<td>The course is planned to give prospective Marketing Education Teacher-Coordinators an overview of the Marketing Education Program: its history and development, its mission, premises, and objectives, and activities of a Marketing Education program and requirements for persons employed in this field.</td>
</tr>
<tr>
<td>201</td>
<td>Curriculum Marketing Education</td>
<td>3</td>
<td>A study of the structure of occupations for the purpose of developing competencies in career development and curriculum development. Students will analyze marketing jobs in terms of specific and related job duties and competencies and will investigate career continuums.</td>
</tr>
<tr>
<td>305</td>
<td>Office Machines/Quantitative Applications</td>
<td>3</td>
<td>Designed to develop proficiency of business math applications on calculators, and to provide experience with duplicating and machine transcription machines. (PR: OT 113 or equivalent)</td>
</tr>
<tr>
<td>325</td>
<td>Communications for Business and Industry</td>
<td>3</td>
<td>Emphasis is placed on the composition of effective business correspondence, writing business reports, making oral presentations, and developing proper procedures and skills necessary for conducting meetings. (PR: OT 113 or equivalent)</td>
</tr>
<tr>
<td>403</td>
<td>Introduction to Adult Learning Theory</td>
<td>3</td>
<td>Designed to acquaint the student with the field of adult education and its underpinnings and the various adult learning theories and/or approached.</td>
</tr>
<tr>
<td>405</td>
<td>Instructional Methods in Technical Training</td>
<td>3</td>
<td>Unit and lesson planning; cooperative education as a method of instruction, project plan of instruction, classroom management and control, demonstration techniques, evaluation methods, field experience in Marketing Education classroom.</td>
</tr>
<tr>
<td>410</td>
<td>Developing Selling Curriculum</td>
<td>3</td>
<td>Conduct library research, review selling content, select content objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments. (PR: MKE 301)</td>
</tr>
<tr>
<td>420</td>
<td>Principles of Cooperative Education</td>
<td>3</td>
<td>Principles for planning, implementing, and evaluating the cooperative design within the various service areas of technical education; analysis of factors which must be considered in selection of the cooperative design.</td>
</tr>
<tr>
<td>421</td>
<td>Office Management</td>
<td>3</td>
<td>Principles and practices, approached from the viewpoint of the office manager, through oral and written problems.</td>
</tr>
<tr>
<td>422</td>
<td>Administration of Cooperative Programs</td>
<td>3</td>
<td>Administering cooperative education programs, recruiting, and selecting students; selecting training agencies and placing students; conducting public relations activities for the program; and advising the student organization.</td>
</tr>
<tr>
<td>425</td>
<td>Computer Applications in Business and Marketing Education</td>
<td>3</td>
<td>Study of computer applications and software for Business and Marketing Education.</td>
</tr>
<tr>
<td>440</td>
<td>Developing Merchandising/Sales Promotion Curriculum</td>
<td>3</td>
<td>Conduct library research, review merchandising and sales promotion content, objectives, identify content appropriate for the target group, prepare teaching outlines, and design evaluation instruments. (PR: MKE 301)</td>
</tr>
<tr>
<td>442</td>
<td>Principles of Prevocational Exploration</td>
<td>3</td>
<td>Study of the prevocational exploration delivery system and develop instructional units which include goals, objectives, and criteria for evaluation of students.</td>
</tr>
<tr>
<td>444</td>
<td>Practicum in Prevocational Exploration, I</td>
<td>3</td>
<td>Participants make revisions to instructional units, organize a Career Exploration Club and recognize apprenticeship opportunities. (PR: ATE 442)</td>
</tr>
<tr>
<td>446</td>
<td>Practicum in Prevocational Exploration, II</td>
<td>3</td>
<td>Participants modify the 36-lesson plan project, incorporate additional “hands-on” activities, examine teaching strategies, and design activities for community involvement such as an advisory committee. (PR: ATE 444)</td>
</tr>
</tbody>
</table>
Courses of Instruction Marshall University

449 Occupational Analysis and Instructional Design. 3 hrs.
Analyzing an occupation to identify knowledge and skills; use of the analysis to develop problem-solving objectives and instructional plans; emphasis on approaches to facilitate student achievement of objectives.

450 Interpersonal Skills in the Workplace. 3 hrs.
Course is designed to provide opportunities to learn in preparation for career success with supervisors, co-workers, clients, and customers. Human relations skills are examined and related to business success.

460-463 Professional Development. 1-4 hrs. I, II, S.
Courses and activities designed to meet specific in-service needs of public school personnel. Credit may be used for certificate renewal and salary upgrading if approved, but not in degree programs. Identifying course titles will vary. CR/NC grading.

465 Career Exploration and Development. 3 hrs.
Exploring principles and techniques for career planning and job search. An overview of strategies for gaining a competitive edge in the labor market and experiencing a successful career beginning.

469 Business and Occupational Teaching Methods. 3 hrs.
Survey of materials and methods for developing competencies in teaching business education and/or occupational training programs.

470 Practicum in Adult and Technical Education. 3 hrs.
Individually designed field experience under supervision of the faculty, such experience related to the student's future professional role. (GRADING: CR/NC)

480-483 Special Topics. 1-4 hrs.
485-488 Independent Study. 1-4 hrs.
Focused study of a topic in adult or technical education selected cooperatively by student and faculty advisor; hours credit to be determined by magnitude of the project.

489 Grant Proposal Writing for Business and Industry. 3 hrs.
This course provides a step-by-step guide to the proposal writing process, from the initial stages of planning, to outlining, to writing the first draft, to preparing the final document, to preparing materials for an oral presentation.

491-494 Workshop. 1-4 hrs.
A study of practical applications in selected subject areas of Adult/Technical Education (ATE 491, 492; CR/NC GRADING)

495 Historical Developments in Workforce Preparation. 3 hrs.
An in-depth study of technical education legislation and theory that shaped workforce preparation in the United States.

495H-496H Readings for Honors in Business Education. 2-4; 2-4 hrs.
Open only to students of outstanding ability. See Honors Courses.

ANTHROPOLOGY (ANT)

201 Cultural Anthropology. 3 hrs.
Introduction to the scientific study of culture with emphasis on the cultures of small-scale societies.

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
(PR: ANT 201)

297-298 Instructional Television Course. 1-4 hrs.
A course based upon an Instructional Television Series broadcast by public television. The student is responsible for viewing the series on the air and satisfying all course requirements announced by the department.

304 Physical Anthropology. 3 hrs.
Introduction to physical anthropology (PR: ANT 201)

322 Archaeology. 3 hrs.
Introduction to the methods and theory of archaeology.

323 Archaeological Field Training. 3-6 hrs.
Supervised instruction in on-site archaeological data collection, survey and excavation techniques.

324 Archaeological Analysis. 3 hrs.
Supervised instruction in processing and analyzing archaeological materials recovered by fieldwork.

333 Linguistic Anthropology. 3 hrs.
Introduction to nonclassical linguistics focused on learning ethnographic interviewing techniques.

340 Folklore. 3 hrs.
Study and analysis of material culture and oral tradition in both literate and non-literate societies. (PR: ANT 201)
Anthropological Research. 3 hrs.
Introduction to anthropological research methods. (PR: ANT 201)

World Prehistory. 3 hrs.
An introduction to the archaeology of pre-literate cultures, from the emergence of Homo sapiens to the present.

Classical Archaeology. 3 hrs.
Archaeology of ancient Greece and Rome, and their colonies and imperial domains.

Applied Anthropology. 3 hrs.
Principles of applied anthropology in community development. (PR: Six hours of anthropology and sociology or departmental permission)

African Cultures. 3 hrs.
Comparative analysis of the tribal cultures of Africa. (PR: Six hours of anthropology or departmental permission)

Ethnic Relations. 3 hrs.
Analysis of cultural contact situations with emphasis on the role of Western European cultures. (PR: Six hours of anthropology or departmental permission)

The American Indian. 3 hrs.
Comparative analysis of Indian tribal cultures of the Americas. (PR: Six hours of anthropology or departmental permission)

World Cultures: An Anthropological View. 3 hrs.
Anthropological analysis of the major culture areas of the world. (PR: Six hours of anthropology or departmental permission)

Oceania. 3 hrs.
Comparative analysis of the original cultures of the Pacific Island area. (PR: Six hours of anthropology or departmental permission)

Anthropological Theory. 3 hrs.
Introduction to ethnological theory and to the development of grounded theory. (PR: 6 credit hours of anthropology or Departmental permission)

Anthropological Analysis. 3 hrs.
Examination of the analytical procedures utilized in ethnographic and comparative approaches to anthropological data, and an introduction to computer processing of cross-cultural data using the Human Relation Area Files. Capstone course. (PR: ANT 201)

Cognitive Anthropology. 3 hrs.
Analysis of the relations between cultural, social, and personality systems. (PR: Six hours of Anthropology or departmental permission)

Appalachian Cultures. 3 hrs.
Analysis of the cultures of Appalachia. (PR: Six hours of anthropology or departmental permission)

Theory and Analysis in Archaeology. 3 hrs.
An introduction to archaeological theory and its application to the material record of cultures, past and present (PR: 6 credit hours of anthropology or department permission).

Appalachian Field Experience I. 3 hrs.
Supervised field work in an Appalachian community studying the social and cultural characteristics of the area. (PR: ANT 455 or equivalent)

Appalachian Field Experience II. 3 hrs
Supervised field work in an Appalachian community studying the social and cultural characteristics of the area. (PR: ANT 455 and 470)

Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
Study of topics of interest not covered in regularly scheduled courses. (PR: Senior status and permission)

Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.
Individual study of topics not offered in regularly scheduled courses. Advance permission required.

Readings for Honors in Anthropology. 2-4; 2-4 hrs.
Open only to Anthropology majors of outstanding ability. (See Honors Courses).

Instructional Television Course. 1-4 hrs.
A course based upon an Instructional Television Series broadcast by public television. The student is responsible for viewing the series on the air and satisfying all course requirements announced by the department.

ART (ART)

Introduction to Visual Art. 3 hrs. I, II, S.
An introduction to the methods and principles of the visual arts. Students will consider the work of major artists in thematic contexts. (For non-art majors only.)
Art Education: Methods and Media. 3 hrs. I, II, S.
Philosophy and methods of art education for the elementary level; includes laboratory experiences.
For art education students.

Co-Curricular Experiences in the Visual Arts. 0 hrs.
Students attend distinguished lectures, exhibitions, workshops, field trips, and other co-curricular visual arts events as part of their requirements for graduation. (PR: Art major or Art Ed. Major)

Composition, Color and Design In Drawing and Painting. 3 hrs. I or II.
Design elements studied as to their use in conveying compositional ideas and practical use of these ideas and elements in original compositions in a variety of traditional media.

Introduction to Design. 3 hrs. I or II.
Basic and related problems in design dealing with the plastic elements-line, color, form, space, and texture.

Three-Dimensional Design. 3 hrs. I or II.
Design with emphasis on three-dimensional form. (PR: ART 214)

Drawing. 3 hrs. I or II.
Freehand drawing with emphasis on drawing from nature and the posed model, using a variety of media. (PR: Open to art majors and minors only. Others must have the permission of the Chairman of the Department of Art.)

Typography and Computer Skills. 3 hrs. I or II.
This course surveys the origins and use of letterforms, calligraphy, typographic principles, basic computer skills for artists, and layout skills emphasizing conceptual design. (PR: ART 214)

Beginning Painting I. 3 hrs. I or II.
Basic techniques using color creatively based on an understanding of visual structural elements; various media including water, acrylic and oil based paints. (PR: 203)

Beginning Painting II. 3 hrs. I or II.
Continuing development of basic techniques using color creatively based on an understanding of visual structural elements; various media including water, acrylic and oil based paints. (PR: ART 255)

Practicum. 3; 3; 3 hrs.
Special Topics. 1-4; 1-4; 1-4 hrs.
To be used for experimental courses. By permission only.

Freshman Portfolio Review. 0 hrs.
Students exhibit work from freshman courses (Art 203, 214, 215, 217 and 218) for review by Art faculty. Review date announced at beginning of semester (see departmental requirements. PR: Art 203, 214, 217).

Printmaking Processes. 3 hrs.
Experiments in the media of intaglio, lithography, serigraphy, relief collagraphs and new techniques in printmaking. (PR: 217)

Relief Printmaking. 3 hrs. I or II or S.
Traditional and experimental approaches to relief printmaking, including woodcut, linocut, wood engraving, relief etching, Japanese techniques, monoprints, and other press and handprinting relief processes. (PR: 301)

Ceramics. 3 hrs. I or II, S.
Search for form and personal expression through clay. Emphasis on handbuilding techniques, decorative processes and glaze application.

Design in Metal. 3 hrs. I or II or S.
Advanced design in metal. Emphasis on copper, silver, pewter, brass. Problems involve soldering, enameling, and shaping metal by hand.

Sculpture. 3 hrs. I or II or S.
Emphasis on modeling in clay and exploring the potential of plaster, wood and other materials relevant to the area of sculpture. (PR: ART 215)

Weaving. 3 hrs. I, II, S.
The student will demonstrate the ability to carry through the entire process for planning, through warping, threading, and weaving. Each will create unique art works while developing traditional technical skills.

Advanced Sculpture. 3 hrs. I or II.
Sculptural exploration will be extended toward openness, transparency and interpenetration of forms. Emphasis will be on the fashioning and joining of contemporary materials (alloys, plastics, etc.) through the mastery of industrial techniques. (PR: ART 307)

Graphic Design: Studio Skills. 3 hrs. I or II.
Practical studio skills: specifying type, photographic and airbrush techniques and preparation of mechanicals. Also, designer’s relationship to agencies, clients, printers, and other professionals. (PR: 219)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Offerings</th>
</tr>
</thead>
<tbody>
<tr>
<td>311</td>
<td>Graphic Design I</td>
<td>3</td>
<td>I or II</td>
</tr>
<tr>
<td></td>
<td>Sign combinations and visual structure, in relation to meaning of visual messages. Assignments include posters, advertising, information design, and corporate identity. Introduction to materials and procedures in the design process. (PR: For art majors - Sophomore standing, ART 214 and 312. For JMC majors - JMC 241, MKT 341)</td>
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<tr>
<td>314</td>
<td>Photography</td>
<td>3</td>
<td>I, II or S</td>
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<tr>
<td></td>
<td>Introduction to techniques and aesthetics of photography as a fine art.</td>
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<tr>
<td>315</td>
<td>Illustration</td>
<td>3</td>
<td>I or II</td>
</tr>
<tr>
<td></td>
<td>Conceptual and technical development of illustrations for editorial and advertising purposes. (PR: ART 219, 314)</td>
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<tr>
<td>316</td>
<td>Illustration</td>
<td>3</td>
<td>I or II</td>
</tr>
<tr>
<td></td>
<td>Applies the use of type and images to design for advertising, editorial, or instructional purposes. Involvement with extended design and layout problems. (PR: ART 214, 312)</td>
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<tr>
<td>317</td>
<td>Illustration</td>
<td>3</td>
<td>I or II</td>
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<tr>
<td></td>
<td>Experience with screen-printing stencil processes. The advanced student may also explore photographic stencil-making and printing and a variety of surfaces. (PR: 301 or permission of chair)</td>
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</tr>
<tr>
<td>320</td>
<td>Collagraphs</td>
<td>3</td>
<td>I or II or S</td>
</tr>
<tr>
<td></td>
<td>Printmaking using the collagraph plate or matrix, an additive method that employs both intaglio and relief techniques. (PR: 301 or permission of chair)</td>
<td></td>
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</tr>
<tr>
<td>325</td>
<td>Color Photography</td>
<td>3</td>
<td>I or II or S</td>
</tr>
<tr>
<td></td>
<td>Color imaging explored through the medium of the color print. (PR: ART 323 and 324)</td>
<td></td>
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</tr>
<tr>
<td>331</td>
<td>Cast Metal Sculpture</td>
<td>3</td>
<td>I or II</td>
</tr>
<tr>
<td></td>
<td>Several major art casting procedures will be studied and employed in the production of original sculptures. Emphasis will be placed on the lost wax process using ceramic shell molds. (PR: ART 215, 307)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>332</td>
<td>Carved Sculpture</td>
<td>3</td>
<td>I or II</td>
</tr>
<tr>
<td></td>
<td>Emphasis will be on the tools, materials and processes of subtractive sculpture. Both traditional and modern techniques will be explored in carving from a variety of woods, stones and other materials. (PR: ART 215, 307)</td>
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</tr>
<tr>
<td>333</td>
<td>Welded Sculpture</td>
<td>3</td>
<td>I or II</td>
</tr>
<tr>
<td></td>
<td>A variety of techniques including oxygen/ acetylene, arc and TIG welding will be studied and practiced in the process of direct metal sculpting. (PR: ART 215, 307)</td>
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<tr>
<td>335</td>
<td>Art Education: 2D-3D Media &amp; Methods</td>
<td>3</td>
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<tr>
<td></td>
<td>Philosophy, media, and methods for teaching art (emphasis for elementary level); includes laboratory experience.</td>
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<tr>
<td>340</td>
<td>Art Education: Crafts</td>
<td>3</td>
<td>I, II or S</td>
</tr>
<tr>
<td></td>
<td>Philosophy and methods of art education supplemented by laboratory experiences featuring crafts for students in early childhood and elementary education. 1 lec-3 lab. (PR: ART 113)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>342</td>
<td>Technologies for Art Education Majors</td>
<td>3</td>
<td>I or II or S</td>
</tr>
<tr>
<td></td>
<td>This course will give art education majors an introduction and experience in graphic design skills, computers and photography. Not applicable to the BFA degree. (PR: ART 214)</td>
<td></td>
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</tr>
<tr>
<td>343</td>
<td>Introduction to the Potter’s Wheel</td>
<td>3</td>
<td>I or II</td>
</tr>
<tr>
<td></td>
<td>Basic throwing skills, surface enrichment and glaze application emphasized. Design analysis and production of functional form stressed. (PR: ART 305)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>344</td>
<td>Primitive Ceramic Techniques</td>
<td>3</td>
<td>I or II</td>
</tr>
<tr>
<td></td>
<td>The study of local clay preparation and primitive firing and decorating techniques. (PR: ART 305)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>345</td>
<td>Problems in Porcelain</td>
<td>3</td>
<td>I or II</td>
</tr>
<tr>
<td></td>
<td>The formulation and use of porcelain in the production of utilitarian and sculptural form. (PR: ART 305, 343, 344, 446 and 448)</td>
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<tr>
<td>350</td>
<td>Watercolor Painting</td>
<td>3</td>
<td>I or II or S</td>
</tr>
<tr>
<td></td>
<td>Watercolor medium in expressing still life, landscape, and the human figure. (PR: ART 203 and 218)</td>
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<tr>
<td>351</td>
<td>Advanced Watercolor</td>
<td>3</td>
<td>I or II</td>
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<tr>
<td></td>
<td>Advanced exploration of watercolor, inks and other fluid media. Emphasis will be on experimental methods and personal originality. (PR: ART 350)</td>
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</tbody>
</table>
312 Courses of Instruction Marshall University

355 Painting III. 3 hrs. I or II or S.
Continued development for the intermediate level painter with emphasis on techniques and form, including varied supports, grounds, mediums such as encaustics, synthetic resins, egg tempera, acrylics and oils. (PR: ART 256)

369 Mold Making and Casting. 3 hrs. I or II.
Advanced processes of piece and flexible mold making will be studied and practiced for the purpose of casting complex forms and limited edition sculpture. (PR: ART 307)

370-372 Practicum. 3; 3; 3 hrs.

390 Professional Practice for Visual Artists. 1 hr. I.
Skills for professional artists. Topics: proper presentation of work, self-promotion, pricing, grants, museum and gallery practices, and legal concerns related to fine and commercial art. Required for Art BFA majors. (PR: Junior standing or permission of Chairman)

401 History of Art. 3 hrs. I.
A survey of the history of art, with emphasis on European traditions. Chronology will cover pre-history through the Middle Ages. (PR: ART 112 for non-majors; none for majors)

402 History of Art. 3 hrs. I.
A survey of the history of art from the Renaissance to the present. (PR: ART 221 for non-majors; none for majors)

403 Arts of Asia. 3 hrs. I or II or S.
A survey of the arts of Asia from the Pacific Ocean to the Bosporus straits, with particular emphasis on India, China, and Japan. (PR: ART 112 or ART 401 or 402 or permission from the department chair)

404 Iconography of Mary. 3 hrs. I or II or S.
Traces the sources and evolution of Catholic doctrine and images of the Virgin Mary.

405 Arts in the United States. 3 hrs. I or II or S.
A survey of the development of architecture, painting, and sculpture from colonial times to the present. (PR: ART 112 or FA 101 or permission)

406 Figure Drawing. 3 hrs. I or II or S.
Practice in drawing from the posed human figure. (PR: ART 217 and 218)

407 Tribal Art. 3 hrs. I or II or S.
An introduction to the unique arts of so-called pre-civilized peoples with a twofold emphasis: First, the European prehistoric; second, the non-European primitive. (PR: ART 112 or ART 401 or permission of department)

408 Art of the Ancient World. 3 hrs. I or II or S.
History of the visual arts and architecture in ancient Mesopotamia, Egypt, Greece and Rome.

409 19th-Century Art. 3 hrs. I or II or S.
A survey of the development of architecture, painting, and sculpture in the Western World during the 19th century. (PR: ART 402 or permission of department)

412 20th-Century Art to World War II. 3 hrs. I or II or S.
A survey of the development of architecture, painting and sculpture in the Western World from 1900 to World War II. (PR: ART 402 or permission of department)

413 20th-Century Art After World War II. 3 hrs. I or II or S.
A survey of the development of architecture, painting and sculpture in the Western World from World War II to the present. (PR: ART 402 or permission of department)

414 The Art of the Renaissance in Italy and Northern Europe. 3 hrs., I, II, or S.
The course discusses the art of the Renaissance in Italy and Northern Europe within the context of social, political, theological and philosophical developments. (PR: ART 402 or permission of department)

417 Figure Sculpture. 3 hrs. I or II.
Interpretive sculpture based on the gesture and structure of the human figure. A variety of stylistic persuasions and media will be explored according to individual interests. (PR: ART 307)

418 Advanced Drawing. 3 hrs. I or II.
Drawing problems designed and executed by the individual student, in a variety of media, to develop unique imagery and increased technical skill. (PR: ART 218)

419 Spinning, Dyeing and Tapestry. 3 hrs. I or II or S. Basic procedures in hand spinning, dyeing and tapestry weaving. (PR: ART 308)

420 Woven Textile Design. 3 hrs. I or II.
Woven textile design for possible commercial production, emphasizing creation of numerous fabric samples and limited amounts of yardage. (PR: ART 308)

421 Functional Weaving Design. 3 hrs. I or II.
Production of finished woven domestic items and apparel which have immediate function. Involves the study of historical models of woven goods and their possible contemporary use. (PR: ART 308)
313 Textiles Fiber Art. 3 hrs. I or II.
Fibers as a medium for self expression and the exploration of structure, space, color and form for meaning. (PR: ART 308)

422 Studio Photography. 3 hrs.
Advanced course for students who have completely mastered the basics of photography. Covers basic studio setup, creative use of the studio situation in portraits, still life and photo illustration. (PR: ART 323 and 324)

426 Advanced Problems in Photography. 3 hrs.
Directed study in which student pursues creative work in a direction consistent with current activities in the field of photography. Emphasis on creative development. (PR: ART 323 and 324; ART 325 or permission)

427 Photographic Portfolio/E xhibit. 3 hrs.
Continued development of creative work with emphasis on preparation of portfolio and exhibition. (PR: ART 426)

440 Advanced Graphic Design. 3 hrs.
Directed study in which student may select subject from any area of commercial design with the goal of developing specific area of expertise. Emphasis on original design and research. (PR: ART 316)

441 Advanced Problems in Illustration. 3 hrs. I or II.
Continued development of illustration with emphasis on personal style. (PR: ART 317)

442 Monumental Sculpture. 3 hrs. I or II.
Emphasis will be on the planning and production of fountains, architectural reliefs and other large environmental sculptures. (PR: ART 215, 307)

444 Papermaking/Bookbinding. 3 hrs. I or II, S.
The preparation and processing of fibers for papermaking including experiences in sheet forming, casting, laminating; also, traditional and experimental bookbinding methods as well as producing creative art forms.

445 Ceramic Sculpture. 3 hrs. I or II.
Contemporary ideas and techniques of ceramic fired and unfired sculpture. (PR: ART 305, 344)

448 Ceramic Materials and Processes. 3 hrs. I or II.
Practical and empirical investigation of ceramic materials, techniques and approaches to their use in clay and glazes. (PR: ART 305)

449 Ceramic Sculpture. 3 hrs. I or II.
Contemporary ideas and techniques of ceramic fired and unfired sculpture. (PR: ART 305, 344)

450 Two and Three Dimensional Design for Fabrics. 3 hrs. I or II.
Exploring the potentialities of fabric as an art experience in two and three dimensional art form.

451 Advanced Ceramics. 3 hrs. I or II.
The advanced student will explore individual problems and interests in clay. (PR: all proceeding ceramic numbers)

452 Three-Dimensional Graphic Design. 3 hrs. I or II.
Graphics for display design and packaging. (PR: ART 215, 316)

453 Electronic Media in the Visual Arts. 3 hrs. I or II.
Hands-on experience with electronically generated images. Survey of recent developments in imaging technology. Topics may include computer graphics, video, and projected media. (PR: permission of instructor)

454 Designing for Multimedia. 3 hrs. I or II or S.
Current topics and techniques in multimedia design. Topics include animation, incorporating digital video and sound, interaction design, information design, Web site design and advanced image processing. (PR: ART 316 or permission of instructor. Basic knowledge of current graphics software)

455-456 Painting: Acrylic and Oil. 3; 3 hrs. I or II or S.
Study and practice of painting in expressing still life, landscape, and the human figure. (PR: ART 256)

457 Figure Painting. 3 hrs.
Painting the nude model using modern and classical methods. (PR: Permission)
458 Advanced Problems in Painting. 3 hrs. I or II or S.
Refinement and development of individual concerns with content, form and techniques in painting.
(PR: ART 456)

460 Art Education: History and Philosophy of Art Education. 3 hrs. I.
A survey of the evolution of art education and philosophy, and a study of problems related to art
education on the elementary and high school level. (PR: ART 340)

463 Advanced Intaglio Printmaking. 3 hrs. I or II, S.
Development of individualized form using intaglio techniques and incorporating multiple colors, plates,
assemblages, collagraphs, photo-etching, and mixed media. (PR: ART 301)

465 Lithography. 3 hrs. I or II, S.
Basic techniques of hand lithography, both stone and metal plate. (PR: ART 301)

466 Curriculum Development for Public School Art K-12. 3 hrs.
(Same as CI 466) Exploring considerations for curriculum development in art education; developing
individualized curriculum for specific situations on grade levels K-6 or 7-12.

470-473 Practicum. 3; 3; 3; 3 hrs. I, II, S.
To be used for learning activities that involve the application of previously learned processes, theories,
systems or techniques.

475-479 Advanced Studio Sequence. 3; 3; 3; 3 hrs. I, II, S.
To be used to complete studio specialization and may be repeated. By permission only.

480-483 Special Topics. 1-4; 1-4; 1-4 hrs. I, II, S.
To be used for experimental courses. By permission only.

485-488 Independent Study. 1-4; 1-4; 1-4 hrs. I, II, S.
To be reserved for tutorials, directed and independent readings, directed and independent research,
problem reports, and other activities designed to fit the needs of individual students within the major.

490 Apprenticeship/Field Training. 1-3 hrs. I, II.
Student is placed in a supervised work situation offering the opportunity to perform professional
design work. At this time a proper portfolio and resume are produced and presented for graduation.
(PR: permission of department)

492 Teaching in the Art Opportunity Program. 1 hr. II.
Approaches to teaching art at the elementary level; practical experience teaching in the Art Opportunity
Program. (PR: ART 113)

499 Senior Capstone Project
Students document and exhibit their production from courses completed during their senior year in
their area’s of concentration. The exhibition should result from their academic as well as studio study.
(PR: ART 390 for B.F.A. students. Not required of Art Education majors)

ART EDUCATION
(Listed under Art)

BIOLOGICAL SCIENCES (BSC)

104 Introduction to Biology. 4 hrs. I, II, S.
Fundamentals of biology with emphasis on the unity of life, energetics, genetics, evolution, classification
of organisms in the kingdoms of life. Intended for non-science majors. 3 lec-2 lab.

105 Introduction to Biology. 4 hrs. I, II, S.
Biological principles of structure and function in plants and animals (with emphasis on population
growth and ecology systems). Intended for non-science majors. 3 lec-2 lab. (PR: BSC 104, non-major)

120 Principles of Biology. 4 hrs. I, II, S.
Study of basic biological principles common to all organisms through lecture and laboratory activities.
Chemistry of life, cell biology, metabolism, heredity, and evolution. Intended for science majors
and pre-professional students. 3 lec-2 lab. (PR: at least 21 on Math ACT, or C or better in MTH 121
or higher)

121 Principles of Biology. 4 hrs. I, II, S.
A continuation of the study of basic biological principles common to all organisms. Diversity of life,
phylogeny, structure, function, and ecology. Intended for science majors and pre-professional stu-
dents. 3 lec-2 lab. (PR: BSC 120 with grade of C or better)

212 Invertebrate Zoology. 4 hrs. I, II.
Classification, structure and relationships of the important animal phyla. 2 lec-4 lab. (PR: BSC 121
with grade of C or better)

214 Vertebrate Zoology. 4 hrs. I.
A survey of the seven living classes of vertebrates emphasizing aspects of ecology, physiology, natural
history and taxonomy (PR: BSC 121 with grade of C or better or 12 hrs. college credit, 100 level or
above with minimum GPA of 2.3)
227 Human Anatomy. 4 hrs. I, II, S.
Principles of gross and microscopic anatomy of human body systems and their development. Open to candidates in BSN program. 3 lec.-2 lab.: ACT composite 19 or higher or 12 hrs. college credit, 100 level or above with minimum GPA of 2.3)

228 Human Physiology. 4 hrs. II, S.
Basic concepts of human physiology, including an introduction to physiological control mechanisms operating at cellular, tissue, organ, and systems levels. Provides the scientific background for understanding pathophysiology. Open to candidates in BSN program. 3 lec.-3 lab. (PR: BSC 227 with grade of C or better)

250 Microbiology and Human Disease. 4 hrs. I, II, S.
Introduction to microbiology with emphasis on the role of microorganisms in the disease process. (PR: BSC 227 or equivalent with grade of C or better)

300 Histology. 4 hrs. II.
Principles of microscopy and microscopic study of vertebrate tissues. 2 lec-4 lab. (PR: BSC 120, 121 or equivalent)

301 Vertebrate Embryology. 4 hrs. I.
Vertebrate development based chiefly on frog, chick and pig embryos. 2 lec-4 lab (PR: BSC 121 with grade of C or better)

302 General Bacteriology. 4 hrs. I, II.
Basic microbiological techniques, fundamental principles of microbial action, physiological processes, immunology, serology, disease process. 2 lec-lab. (PR: BSC 121 with grade of C or better or equivalent)

303 Readings in Immunology. 2 hrs. I, II.
An introduction to the science of immunology based on selected readings in this discipline. Coverage includes humoral and cell mediated immunity, immune tolerance, transplantation, autoimmunity, and immunity and disease. 2 lec-discussion. (PR: BSC 302)

304 Methods in General Bacteriology.
A laboratory courses emphasizing basic microbiological techniques, including preparation of culture media, gram staining, isolation and identification of bacteria from diverse environments, and evaluation of antiseptics and disinfectants. (PR or CR: BSC 302)

310 Comparative Vertebrate Anatomy. 4 hrs. I, II.
Structure, function and relationships of systems of selected vertebrates with an emphasis on embryology and evolution. 2 lec-4 lab. (PR: BSC 121 with grade of C or better or equivalent)

320 Principles of Ecology. 4 hrs. I, II, S.
A fundamental approach to the basic principles underlying the interrelationships of organisms with their biotic and abiotic environments. A variety of aquatic and terrestrial ecosystems will be studied in the field and in the laboratory. 3 lec-3 lab. (PR: BSC 121 with grade of C or better; or equivalent)

322 Principles of Cell Biology. 4 hrs. I, II, S.
A fundamental approach to the principles of cell biology covering the molecular basis of cellular structure and function, and gene regulation. Explores intercellular interactions, molecular interactions with modern cellular and molecular methods. 3 lec-3 lab. (PR: BSC 120 and 121 with grade of C or better, or equivalent. CHM 355 recommended)

324 Principles of Genetics. 4 hrs. I, II, S.
The fundamental principles and mechanisms of inheritance. 3 lec-3 lab. (PR: BSC 120 and 121 with grade of C or better, or equivalent. CHM 355 recommended.)

401 Ichthyology. 4 hrs. II.
Anatomy, physiology, ecology, zoogeography, economic importance and classification of major groups and representative local species of fishes. 2 lec-4 lab and field. (PR: BSC 121 with grade of C or better; BSC 214 or 310)

405 Economic Botany. 3 hrs. I, II.
Plants used by man for food, ornamental purposes, building materials, textiles and other industrial purposes; economic importance of conservation. No laboratory. (PR: BSC 121 with grade of C or better or BSC 105 with grade of B or better)

406 Herpetology. 4 hrs. II (Alternate years).
Taxonomy, morphology, distribution, life history, and ecology of reptiles and amphibians with a special emphasis on representatives native to West Virginia. 2 lec-4 lab. (PR: BSC 121 with grade of C or better or equivalent)

408 Ornithology. 4 hrs. II (Alternate years).
An introduction to avian biology: identification, distribution, migration, and breeding activities of birds. 2 lec-4 lab. (PR: BSC 121 with grade of C or better or equivalent)
Remote Sensing/GIS Applications. 4 hrs. I.
A study of the physical systems for collecting remotely sensed data. Statistical/spacial analysis and modeling using image processing/geographic information/spatial computer software systems with earth resources applications. (PR: PHY 203, 204; MTH 225 or permission)

Digital Image Processing/GIS Model. 4 hrs. II.
A study of image processing/geographic information/spatial analysis systems, concurrent and parallel image process, 3-D modeling scenarios utilizing geophysical data for computer simulation modeling. (PR: BSC/PS 410 or BSC 410 or IST 420 or permission)

Principles of Organic Evolution. 3 hrs. II.
Facts and possible mechanisms underlying the unity and diversity of life with emphasis on Neo-Darwinian concepts of the role of species in evolutionary phenomena. (PR: BSC 121 with grade of C or better or equivalent)

Entomology. 4 hrs. I.
Anatomy, classification, life histories and economic importance of representative insects. 2 lec-4 lab. (PR: BSC 120-121 or equivalent)

Morphology of Plants and Fungi. 4 hrs. I, II, S.
Characteristics of the major plant groups. Discussion of important steps in the development of plants. 2 lec-4 lab. (PR: BSC 121 with grade of C or better or equivalent)

Plant Taxonomy. 4 hrs. I, II, S.
Identification and classification of seed plants and ferns of eastern United States. Readings in history and principles of taxonomy, rules of nomenclature, and related topics. 2 lec-4 lab. (PR: BSC 121 with grade of C or better or equivalent)

Mycology 4 hrs. I. (Alternate years)
Nature, cause, and control of plant disease. 2 lec-4 lab. (PR: BSC 121 with grade of C or better or equivalent)

Plant Physiology. 4 hrs. II. (Alternate years)
Experimental study of plant life processes to include applicable biophysical and biochemical principles, water relations, molecular biology, stress physiology, and growth and development. 3 lec-3 lab. (PR: BSC 121 with grade of C or better or equivalent)

Physiology. 4 hrs. II. (Alternate years)
Morphology, taxonomy, and techniques used in the study of freshwater algae with emphasis upon applications of ecological principles to current water quality problems. 2 lec-4 lab. (PR: BSC 121 with grade of C or better or equivalent)

Animal Physiology. 4 hrs., I.
Physiological principles operating in the organ systems of vertebrate animals. 3 lec-3 lab. (PR: BSC 105 with a grade of B or better or 121 with grade of C or better)

Animal Parasitology. 4 hrs. I, II, or S.
Morphology, life histories, classification, and host relationships of common parasites. 2 lec-4 lab. (PR: BSC 121 with grade of C or better)

Medical Entomology. 4 hrs. I, II, or S.
Role of certain insects and other arthropods in the transmission of disease organisms and methods of control. 2 lec-4 lab. (PR: BSC 121 with grade of C or better)

Plant Ecology. 4 hrs. II.
The study of plants and their interactions with their environment at different levels of ecological organization: individuals, populations, communities, and ecosystems. Emphasis on quantitative analysis of ecological data. (PR: BSC 121 with grade of C or better)

Limiology. 4 hrs. I.
Study of inland waters; ecological factors affecting lake and stream productivity and various aquatic communities. (PR: BSC 121 with grade of C or better; REC: BSC 212)

Advanced Microbiology. 4 hrs. I.
An advanced treatment of microbiology with emphasis on the molecular aspects of anatomy, taxonomy, and physiology of microorganisms. 2 lec-4 lab. (PR: BSC 302)

Microbial Ecology. 3 hrs. II.
This course introduces students to the vital roles that microbes play in sustaining life on earth. Includes both theoretical and practical concepts ranging from the origin of life to biodegradation. (PR: BSC 121 with grade of C or better or permission)
446  Microbial Ecology Lab. 2 hrs. II
A laboratory course emphasizing the recovery, cultivation, enumeration, and identification of bacteria from environmental samples. Also introduces students to molecular-based methods for studying microbial community structure and dynamics. (CR: BSC 445/545 or permission)

450  Molecular Biology. 3 hrs. II.
Advanced principles in molecular function emphasizing current research using recombinant DNA methodology. (PR: BSC 322 or equivalent)

452  Molecular Biology Lab Techniques. 2 hrs., II.
Current techniques in molecular biology with focus on recombinant DNA methodology. (PR: BSC 322 or equivalent; REC: BSC 450 or BMS 600, and BSC 324)

460  Conservation of Forests, Soil, and Wildlife. 3 hrs. I.
Primarily for students in the biological, general and applied sciences. Includes field work, seminars, and demonstrations on phases of conservation of forest, soil, and wildlife. 2 lec.-4 lab. (PR: BSC 105 or 121)

480-483  Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
(PR: Permission)

485-488  Independent Study. 1-4; 1-4; 1-4 hrs., CR/NC
(PR: Permission)

491  Capstone Experience. 2 hrs.
An independent study involving a research project or internship. Must be approved by Biological Science Faculty. (PR: Junior/ Senior Status)

CHEMISTRY (CHM)
(The Department of Chemistry is approved by the Committee on Professional Training of the American Chemical Society.)

190H-191H  Honors in Chemistry. 1; 1 hr.
Independent study programs for outstanding students. (PR: Permission of the department chairman)

203  General Chemistry I. 3 hrs. I, S.
An introduction to chemical science, its development, basic concepts and interrelationships with other sciences. Intended primarily for non-science majors and B.A. degree candidates. 3 lec.

204  General Chemistry II. 3 hrs. II, S.
A continuation of Chemistry 203 with emphasis on introductory organic and biochemistry. 3 lec. (PR: CHM 203)

211  Principles of Chemistry I. 3 hrs. I, II, S.
A study of the properties of materials and their interactions with each other. Development of theories and applications of the principles of energetics, dynamics and structure. Intended primarily for science majors and pre-professional students. 3 lec. (CR: CHM 217; PR: MTH ACT of 21 or better or C or better in MTH 127 or equivalent)

212  Principles of Chemistry II. 3 hrs. I, II, S.
A continuation of Chemistry 211 with emphasis on the inorganic chemistry of the representative elements and transition metals. 3 lec. (PR: C or better in CHM 211; CR: CHM 218)

215  Environmental Chemistry. 2 hrs. I, S.
A study of experimental problems in the detection and measurement of common chemicals. Emphasis is on problems of air and water pollution, with some attention to problems in consumer chemistry. One of the three courses 215, 217, 218 which may be selected to meet the two-course laboratory requirement for introductory Chemistry. 2 lab-1 lec.

217  Principles of Chemistry Laboratory I. 2 hrs.
A laboratory course that demonstrates the application of concepts introduced in Chemistry 211. (CR or PR: CHM 211).

218  Principles of Chemistry Laboratory II. 2 hrs.
A laboratory course that demonstrates the application of concepts introduced in Chemistry 212. (CR or PR: CHM 212)

223  Computer Applications in Chemistry. 2 hrs.
Introduction to the use of computers in chemistry. Includes the use of computers for chemical calculations and the interfacing of computers to laboratory equipment. 1 lec. 2 lab. (CR or PR: CHM 212)

280-283  Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.

290H-291H  Honors in Chemistry I, II. 1; 1 hr.
Independent study programs for outstanding students. (PR: Permission of the department chairman)

305  Chemical Information Retrieval. 1 hr., I.
A survey course concerning the use of the chemical literature with emphasis on online computer searching. (PR or CR: CHM 362)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>307</td>
<td>Introductory Physical Chemistry</td>
<td>4 hrs.</td>
<td>A brief survey of physical chemistry including the topics of thermodynamics, molecular structure, and kinetics. Intended for students needing a broadly based science background. 3 lec., 2 lab. (PR: CHM 212, C or better in MTH 140 or 229, 8 hours of physics)</td>
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<tr>
<td>327</td>
<td>Introductory Organic Chemistry</td>
<td>5 hrs.</td>
<td>A short study of organic chemistry with emphasis on structure, nomenclature, and reactivity. Designed for students who do not require the full-year course in organic chemistry. (This course cannot be used as an upper division elective toward a chemistry major.) 3 lec., 3 lab. (PR: CHM 212)</td>
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<tr>
<td>331-332</td>
<td>Chemistry Seminar</td>
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<td>A graduation requirement for all juniors seeking the B.S. in Chemistry degree. 1 lec.</td>
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<tr>
<td>345</td>
<td>Introduction to Analytical Chemistry</td>
<td>4 hrs.</td>
<td>Introduction to the basic principles of Analytical Chemistry including traditional wet methods and contemporary instrumental methods of chemical analysis. (PR: CHM 212 and 218)</td>
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<tr>
<td>355</td>
<td>Organic Chemistry I</td>
<td>3 hrs.</td>
<td>A systematic study of organic chemistry including modern structural theory, spectroscopy, and stereochemistry; application of these topics to the study of reactions and their mechanisms and applications to synthesis. 3 lec. (PR: C or better in CHM 212)</td>
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<tr>
<td>356</td>
<td>Organic Chemistry II</td>
<td>3 hrs.</td>
<td>Continuation of Chemistry 355. 3 lec. (PR: C or better in CHM 355)</td>
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<tr>
<td>357</td>
<td>Physical Chemistry I</td>
<td>4 hrs.</td>
<td>A systematic study of physical chemistry. 3 lec.-2 lab. (PR: CHM 212, eight hours of Physics, MTH 230)</td>
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<tr>
<td>358</td>
<td>Physical Chemistry II</td>
<td>4 hrs.</td>
<td>A systematic study of physical chemistry. 3 lec.-2 lab. (PR: CHM 357)</td>
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<tr>
<td>361</td>
<td>Introductory Organic Chemistry Lab</td>
<td>3 hrs.</td>
<td>An introduction to experimental organic chemistry with emphasis on fundamental techniques and their application to the preparation and identification of organic compounds. 6 lab. (PR or CR: CHM 356)</td>
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<tr>
<td>362</td>
<td>Intermediate Organic Chemistry Lab</td>
<td>3 hrs.</td>
<td>Applications of modern experimental methods to the synthesis and analysis of organic compounds with emphasis on instrumental techniques. 6 lab. (PR: CHM 356 and 361; CR or PR: 305)</td>
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<tr>
<td>365</td>
<td>Introductory Biochemistry</td>
<td>3 hrs.</td>
<td>A survey course including introduction to basic biochemical concepts, metabolic pathways, and bioenergetics. 3 lec. (PR: CHM 327 or 356)</td>
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<tr>
<td>366</td>
<td>Introductory Biochemistry Laboratory</td>
<td>2 hrs.</td>
<td>Introduction to basic biochemical laboratory techniques including chromatography, electrophoresis, and enzyme kinetics; methods for identification and characterization of biochemical systems. 4 lab. (PR or CR: CHM 365)</td>
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<tr>
<td>390H-391H</td>
<td>Honors in Chemistry</td>
<td>1 hr.</td>
<td>Independent study programs for outstanding students. (PR: Permission of department chairman)</td>
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<tr>
<td>401</td>
<td>Research for Undergraduates</td>
<td>2 hrs.</td>
<td>Both a formal oral and written report of the results of the research must be presented to the faculty of the Department of Chemistry. (PR: CHM 401)</td>
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<tr>
<td>402</td>
<td>Research for Undergraduates</td>
<td>4 hrs.</td>
<td>Both a formal oral and written report of the results of the research must be presented to the faculty of the Department of Chemistry. (PR: CHM 401)</td>
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<tr>
<td>411</td>
<td>Modern Instrumental Methods in Chemistry and Biochemistry</td>
<td>4 hrs.</td>
<td>This course investigates the theory and functional aspects of modern analytical instrumentation. Emphasis is placed on components of instruments and applicability of various techniques to specific analytical problems.</td>
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<tr>
<td>428</td>
<td>Introduction to Forensic Science Methods</td>
<td>3 hrs.</td>
<td>Introduction to crime scene investigation, physical evidence collection, serology and DNA technologies (PCR, RFLP). Discussion of statistical, analysis of DNA and managing a DNA database, using CODIS as an example. (PR: CHM 365 and either BSC 322 or 324)</td>
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<tr>
<td>430</td>
<td>Introduction to Polymer Chemistry</td>
<td>3 hrs.</td>
<td>Properties of macromolecules. Methods of preparation and characterization. Industrial applications and processes. 3 lec. (PR: Permission of instructor of CHM 356 and either 307 or 357)</td>
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<tr>
<td>431-432</td>
<td>Chemistry Seminar</td>
<td></td>
<td>A graduation requirement for all seniors enrolled in the B.S. in Chemistry program. 1 lec.</td>
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<tr>
<td>440</td>
<td>Thermodynamics</td>
<td>3 hrs.</td>
<td>An introduction to chemical thermodynamics and statistical mechanics. 3 lec. (PR: CHM 358)</td>
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</table>
442 Quantum Mechanics. 3 hrs.
An introductory course in quantum mechanics. 3 lec. (PR: MTH 231)

448 Advanced Inorganic Chemistry I. 4 hrs.
Study of physical properties and periodic relationships of inorganic materials. 3 lec.-2 lab. (PR: CHM 356 and either 307 or 357)

449 Advanced Inorganic Chemistry II. 3 hrs.
A detailed consideration of bonding, structure, reaction rates and equilibrium involving inorganic materials. 3 lec. (PR: CHM 448)

450 Industrial Chemistry. 3 hrs.
Modern industrial processes for making chemicals, with emphasis on petrochemicals. An introduction to the engineering, economic, and environmental aspects of these processes. (PR: Permission of instructor of CHM 356 and either 307 or 357)

453 Magnetic Resonance in Chemistry. 3 hrs.
Applications of analysis by magnetic resonance. Emphasis will be placed on proton and heteronuclear magnetic resonance theory and applications. (2 hrs. lec.-2 hrs. lab.) (PR: CHM 356)

462 Nuclear Chemistry and Physics. 3 hrs. II.
An introduction to the phenomena of nuclear physics and chemistry. 3 lec. (PR: MTH 231)

463 Nuclear Chemistry and Physics Laboratory. 2 hrs., II, 4 lab.
(CR: CHM 462)

465 Advanced Organic Chemistry I. 3 hrs. I.
Studies of the dynamics of organic reactions with emphasis on mechanisms and stereochemistry. 3 lec. (PR: C or better in CHM 356)

466 Advanced Organic Chemistry II. 3 hrs. II.
A continuation of Chemistry 465 with emphasis on synthetic methods. 3 lec. (PR: CHM 465)

480-483 Special Topics. 1-4; 1-4; 1-4 hrs.
485-488 Independent Study. 1-4; 1-4; 1-4 hrs.
490 Chemistry Internship. 1-6 hrs. I, II.
Supervised chemistry laboratory work. Arrangements must be made in advance with Department Chairman. May be an elective in B.S., Chemistry program but not B.S. in Chemistry program. (PR: 2 from CHM 307, 345, 361, or 356)

491 Capstone Experience. 2-4 hrs. I, II.

495H-496H Honors in Chemistry. 3-4; 3-4 hrs. I, II, S.
Open only to chemistry majors of outstanding ability. See Honors Courses

CLASSICS (CL)
General humanities courses, taught in English, open to all students at the academic level listed.

200 Building English Vocabulary Through Latin and Greek. 3 hrs. I, II.
Study of Latin and Greek word elements to build skill in English vocabulary, both general and technical (or scientific-medical).

230 Ancient Greek and Roman Epic (taught in English). 3 hrs., I or II.
Introduction to the genre of ancient epic through reading Homer’s Iliad and Odyssey and Vergil’s Aeneid (or other ancient epics). (PR: ENG 101 or YGS 161)

231 Women in Greek and Roman Literature (taught in English) 3 hrs. I or II.
Thematic study of women in ancient Greek and Roman literature, including writers like Sappho as well as women in literary roles in male writers from Homer to Apuleius. (PR: ENG 101 or YGS 161)

232 Ancient Greek and Roman Drama. 3 hrs. I or II.
Taught in English, this is an introduction to Greek and Roman dramatic genres of tragedy and comedy using selected plays of Aeschylus, Sophocles, Euripides, Aristophanes, Seneca, Plautus, and Terence. (PR: ENG 101 or YGS 161)

233 Greek and Roman Historians, 3 hrs. I, or II.
Taught in English, this is a thematic study of Greek and Roman historiography by topic as much as by historian, including ancient rhetorical sources on the theory of history. (PR: ENG 101 or YGS 161)

234 Greek and Roman Poetry.
Taught in English, this course examines three periods of Greek and Roman poetry: the Archaic and Hellenistic Ages of Greece, and the Golden Age of Rome.

250 Orientation in Humanities. 3 hrs. I, II.
An interdisciplinary course to introduce students to the elements of a humanistic education. (Same as Philosophy 250 and Religious Studies 250; PR or CR: ENG 101)

280-283 Special Topics. 1-4; 1-4; 1-4 hrs.
Selected topics not covered in regular course offerings. (PR: Permission of department chairman)

2001-2003 Undergraduate Catalog Courses of Instruction 319
319  Classical Mythology.  3 hrs. I, II.
Study of the development of myth in ancient Greece and Rome; its place in ancient culture and its survival in the modern world. (PR: ENG 101 or YGS 161)

350  Basic Humanities.  3 hrs. I or II.
A structured interdisciplinary study offered by the departments of Classical Studies, Philosophy and Religious Studies in the foundations of Western thought; its myth, literature, religion, philosophy, art. (Same as Philosophy 350 and Religious Studies 350) (PR: ENG 101 or YGS 161)

370  Classical Archaeology.  3 hrs. I or II.
Archaeology of ancient Greece and Rome, and their colonies and their imperial domains. (Same as Anthropology 370) (PR: ENG 101 or YGS 161)

435  Greek Civilization.  3 hrs. II.
Study of ancient Greek culture, emphasizing parallels with present-day issues. (PR: ENG 101 or YGS 161)

436  Roman Civilization.  3 hrs. II.
Study of ancient Roman culture, emphasizing parallels with present-day issues. (PR: ENG 101 or YGS 161)

460  Ancient Goddess Religions.  3 hrs.
Study of the mythology and cults of the goddesses of Greece, Asia Minor, Crete and Rome, with a view to discovering cultural contexts.

480-483  Special Topics.  1-4 hrs.
Topics like “Values in Ancient Greece/ Rome” or “The Cult of the Leader in Ancient Greece/ Rome” have recently been offered. Consult chairman for current offerings. (PR: Departmental permission) (PR: ENG 101 or YGS 161)

485-488  Independent Study.  1-4 hrs.
495H-496H  Readings for Honors in Classics.  4 hrs. I, II.
Open only to students of outstanding ability. See Honors Courses.

499  Humanities Seminar.  3 hrs.
Designed for majors as the culminating interdisciplinary study in the Basic Humanities program. (Same as Philosophy 499 and Religious Studies 499) (PR: ENG 101 or YGS 161)

**CLINICAL LABORATORY SCIENCES (CLS)**
**MLT Associate Degree Program and MDT Bachelor’s Degree Program**

100  Introduction to Health Professions.  1 hr. CR/NC. I.
Introduction to health sciences careers and professions, emphasizing programs at Marshall University. Features practitioners involved in health care delivery and educational programs.

110  Clinical Hematology.  4 hrs. I, II.
Theory and practice of clinical laboratory tests of red and white blood cells, as well as blood clotting. 3 lec-3 lab. (PR: BSC 227 or equivalent with minimum C and minimum 2.0 GPA)

200  Clinical Biochemistry.  4 hrs. I.
Theory and practice of clinical laboratory testing of serum, plasma, urine, body fluids in disease diagnosis. 3 lec-3 lab. (PR: CHM 211, 213, min. 2.0 GPA, with C grade in MTH 120, and permission)

210  Clinical Immunohematology.  4 hrs. II.
Theory of immune mechanisms in the body and applications for diagnostic testing and blood transfusion. 3 lec-3 lab. (PR: CLS 110, 200, and permission)

220  Clinical Microbiology.  4 hrs. II.
A study of bacterial, fungal, and helminth related diseases, including diagnostic approach and techniques. 3 lec-3 lab. (PR: CLS 200, permission).

255  Clinical Laboratory Problems.  3 hrs. II.
Case studies of instrumental and diagnostic problems encountered by the laboratory technician. 3 lec. (PR: CLS 110, 200, permission)

270  Clinical Practicum, Hematology.  3 hrs. S.
Total of 4 weeks (160 hours) of hospital-based practice, performance of diagnostic tests of blood cells, urine, coagulation, and clinical microscopy under supervision. One of four courses, CLS 270-273, taken concurrently. (PR: CLS 255, permission)

271  Clinical Practicum, Chemistry.  3 hrs. S.
Total of 4 weeks (160) hours of hospital-based supervised practice performing diagnostic tests on body fluids using chemical methods. One of four courses, CLS 270-273, taken concurrently. (PR: CLS 255, permission)

272  Clinical Practicum, Immunohematology.  3 hrs. S.
Total of 3 weeks (120 hours) of hospital-based supervised practice performing blood typing, antibody screening and identification, and conduct of pre-transfusion tests. One of four courses, CLS 270-273, taken concurrently. (PR: CLS 255, permission)

Marshall University
273 Clinical Practicum, Microbiology. 3 hrs. S.
Total of 4 weeks (160 hours) of hospital-based supervised practice performing isolation, identification, and susceptibility testing of bacteria, fungi, and parasites. One of four courses, CLS 270-273, taken concurrently. (PR: CLS 255, permission)

285-288 Independent Study. 1-4; 1-4; 1-4 hrs. I, II.
(PR: Permission)

450 Advanced Clinical Hematology/Microbiology. 4 hrs. I.
Advanced topics in blood cell disorders, transfusion problems, bleeding disorders; advanced diagnostic procedures in bacteriology, parasitology, virology. 3 lec-3 lab. (PR: CLS 210, CLS 220, and permission)

460 Clinical Laboratory Management and Supervision. 3 hrs. I.
Laboratory personnel and resource management, cost control, cost analysis, lab. marketing, accreditation. 3 lec. (PR: MGT 320 and permission)

464 Clinical Laboratory Instrumentation and Information Systems. 3 hrs. I.
Principles of instrumental electronics and data systems; interpretation of instrumental outputs, troubleshooting, computerized statistical methods. 2 lec-2 lab. (PR: PHY 201-204, CLS 200 and permission)

466 Diagnostic Physiology. 3 hrs. I.
Pathologic aspects of laboratory medicine with case studies, diagnostic problem solving, student projects. 3 lec. (PR: CLS 270-273, permission)

468 Clinical Laboratory Research. 2 hrs. II.
Directed independent research in the hospital laboratory setting during 18-week period. Capstone experience. (PR: CLS 450-466, permission; CR: CLS 471, CLS 491)

471 Clinical Practicum. 9 hrs. II.
A minimum of 450 hours of hospital-based experience in 18 weeks emphasizing supervisory decision making. (PR: CLS 450-466, permission; CR: CLS 468, CLS 491)

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
(PR: Permission)

485-488 Independent Study. 1-4 hrs.
(PR: Permission)

491 Clinical Specialty Workshops. 3 hrs. II.
Minimum 150 hours experience in advanced specialty test procedures within 18 weeks. (PR: CLS 450-466, permission; CR: CLS 468, 471)

COMMUNICATION DISORDERS (CD)

101 Introduction to Communication Disorders. 3 hrs.
Introduction to the field of Communication Disorders for majors. Discussion of the various communication disorders, as well as the roles and responsibilities of the speech-language pathologist.

241 Introduction to Communication Science. 3 hrs.
A survey of the physical and psychophysical bases of communication with discussion of elementary communication models. (PR: CD 101, and permission of instructor)

285-288 Independent Study. 1-4; 1-4; 1-4 hrs.
(PR: Permission of chair)

315 Computer Networking in Communication Disorders. 3 hrs.
Introduction to adaptive technology for computers to augment communication skills; evaluation of and authoring of software for diagnosis and treatment of communication disorders. Satisfies computer literacy requirements for majors. (PR: Permission of instructor)

325 Language and Speech Development. 3 hrs.
Theories of language acquisition; sequential patterns in the acquisition of prelinguistic communication, speech and language in relationship to general child development. (PR: CD 101; PR/CR: CD 241 and permission of instructor)

418 Communication Disorders of School Children. 3 hrs.
A survey of the causes, symptoms, and treatment of communication disorders encountered in the classroom. Not open to CD majors.

420 Voice and Fluency Disorders. 3 hrs.
Introduction to voice and fluency disorders; etiologies and symptoms; principles of assessment and treatment. (PR: CD 429, 439 and permission of instructor)

422 Articulation and Phonological Disorders. 3 hrs.
Introduction to disorders of articulation and phonology; etiologies and symptoms; principles of assessment and treatment. (PR: CD 429, 439 and permission of instructor; CR: CD 422L)

422L Field Experience: Speech and Language. 1 hr.
Experience with preschool age children; planning and implementing speech and language stimulation activities. (PR: CD 429, 439 and permission of instructor; CR: CD 422)
Courses of Instruction Marshall University

424 Diagnostic Processes with Communication Disorders. 3 hrs.
Examination of assessment procedures for differential diagnosis of various communication disorders; a study of symptom complexes; interpretation of diagnostic data. (PR: CD 422, 422L, 425, 420, 468, 460, 430 and permission of instructor; CR: CD 424L)

424L Diagnostic Processes Laboratory. 1 hr.
Observation and practice in evaluating individuals with communication disorders. (PR/CR: CD 426, 422L, 426L and permission of instructor.; CR: CD 424)

425 Developmental Language Disorders. 3 hrs.
Introduction to theoretical bases of developmental language disorders; etiologies and symptoms; principles of assessment and treatment. (PR: CD 325, 429, 439 and permission of instructor)

426 Therapeutic Procedures I. 3 hrs.
Examination of therapeutic procedures relative to developmental speech disorders. Capstone experience. (PR: CD 422, 422L, 425, 420, 468, 460, 430 and permission of instructor; CR: CD 426L)

426L Therapeutic Procedures Laboratory I. 1 hr. CR/NC
Observation of individuals with communication disorders and introduction to analysis of the clinical process. (PR: CD 422, 422L, 425, 420, 468, 460, 430 and permission of instructor; CR: CD 426)

427 Therapeutic Procedures II. 3 hrs.
Examination of therapeutic procedures relative to speech and language disorders. Investigation into the clinician’s role in case management as well as behavior management techniques. Capstone experience. (PR: CD 426, 422L, 425 and permission of instructor; CR: CD 427L)

427L Therapeutic Procedures Laboratory II. 1 hr. CR/NC
Observation and in-depth analysis of the clinical process. (PR: CD 426L and permission of instructor; CR: CD 427)

429 Anatomy and Physiology of the Speech and Hearing Mechanism. 3 hrs.
Introduction to the anatomy and physiology of the speech and hearing mechanism and the neurological system. (PR/CR: CD 241, 325 and permission of instructor)

430 Acquired Communication Disorders. 3 hrs.
Introduction to acquired disorders; etiologies and symptoms; principles of assessment and treatment. Emphasis on communication disorders resulting from CVA, traumatic brain injury, the dementias, and other neurological disorders. (PR: CD 429, 439, permission of instructor)

439 Phonetics. 3 hrs.
Introduction to articulatory phonetics; study of the International Phonetic Alphabet and practice in broad transcription of normal and disordered speech; discussion of social dialects. (PR/CR: CD 241, 325 and permission of instructor)

460 Basic Audiology. 3 hrs.
Introduction to hearing disorders; examination of the auditory system, psychophysical processes and preferred practice and procedures for assessment. Includes laboratory. (PR: CD 325, 429, 439, and permission of instructor)

463 Aural Rehabilitation. 3 hrs.
Examination of various intervention strategies appropriate for individuals with hearing impairments; techniques for assessing degree of handicap. (PR: CD 460 and permission of instructor)

468 Introduction to Clinical Principles. 3 hrs.
Examination of the principles and processes of identification, diagnosis and treatment of communication disorders and differences. (PR: CD 325, 429, 439 and permission of instructor)

470 Clinical Practicum. 1 hr.
Supervised clinical practicum in the Marshall University Speech and Hearing Center. (PR: CD 426, 426L and permission of instructor)

472 Clinical Practicum with School Children. 6 hrs. CR/NC
Supervised clinical practice with school-aged children; fulfills student teaching requirements for West Virginia Certification as a Speech Language Pathologist. (PR: CD 426, 468; PR or CR: CD 424 and admission to Teacher Education and permission of instructor)

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
(Pr: Permission of chair)

485-488 Independent Study. 1-4; 1-4; 1-4 hrs.
(Pr: Permission of chair)

495H-496H Readings for Honors in Communication Disorders. 4; 4 hrs.
Open only to CD majors of outstanding ability. (Pr: Permission of chair)

COMMUNICATION STUDIES (CMM)

103 Fundamentals of Speech Communication. 3 hrs.
A course designed to enhance the development of critical thinking skills and their application to verbal and nonverbal interaction in interpersonal and public communication contexts.
104H  Honors in Speech Communication.  3 hrs.
An accelerated course for selected freshmen and sophomores in fundamentals of communication, concepts and skills in verbal/nonverbal communication and listening.  Not open to juniors and seniors.  (Substitute for CMM 103) (PR:ACT score 26)

205  The Rhetorical World.  3 hrs.
An introduction to the study of rhetoric as a force in influencing human behavior and societies.  (PR: CMM 103, 104H, 207, 305 or YGS 161).

207  Business and Professional Communication.  3 hrs.
A study of the communication demands and skills relevant to the student's future role as a business or professional person.

213  Fundamentals of Interpersonal Communication.  3 hrs.
Introduction to principles and practices related to productive interpersonal communication.  Emphasizes competence in using verbal and nonverbal message systems to promote effective communication in social and task relationships.

239  Development and Appreciation of Film to 1930.  3 hrs.
The historical development of the motion picture as an art form from its first development to 1930.  Analysis of the technical, social, economic and cultural factors which have influenced the medium.

240  Voice and Diction.  3 hrs.
Theory and practice of speech production and improvement.  (PR: CMM 103)

255  Introduction to Computer-Mediated Communication.  3 hrs.
Use and implications of telecomputing for messaging, resource finding, and self-directed discovery learning.

270-271  Intercollegiate Debate.  1; 1 hr.
(PR: Permission of instructor)

280-283  Special Topics.  1-4; 1-4; 1-4; 1-4 hrs.
(PR: Permission of department chair)

297-298  Instructional Television Course.  1-4 hrs.
A course based upon Instructional Television Series broadcast by public television.  The student is responsible for viewing the series on the air and satisfying all course requirements announced by the department.

302  Professional Presentations.  3 hrs.
Designed for present and future demands on skilled presenters of information.  Included in the teaching of advanced oral presentation skills, computer assisted/aided presentations, teleconferencing and other presentational skills.  (PR: CMM 103, 104H, 207, 305, or YGS 161)

303  Introduction to Communication Theory.  3 hrs.
Analysis of the process of communication and its constituent elements, with emphasis upon traditional and contemporary theories, their validation, and their use as a tool in diagnosis and remediation of communication problems.  (PR: CMM 103, 104H, 207, 213, 305 or YGS 161).

305  Principles of Communication.  3 hrs.
Beginning course, open to juniors and seniors who have not had CMM 103, 104H, 207 or YGS 161.

307  Communication in Social Movements.  3 hrs.
Investigation of the functions, ethics, responsibilities and social impact of oral communication in periods of social unrest.  (PR: CMM 103, 104H, 207, 213, 305 or YGS 161)

308  Persuasive Communication.  3 hrs.
Introduction to the understanding, practice and analysis of persuasion.  Behavioral and rhetorical theories of persuasion will be examined and applied to contemporary persuasive communications.  (PR: CMM 103, 104H, 207, 305 or YGS 161)

310  Argumentation and Debate.  3 hrs.
Basic principles of argument; practice in discussion and debate.  Recommended but not a prerequisite for intercollegiate debating.  (PR: CMM 103, 104H, 207, 305 or YGS 161)

311  Language and Communication.  3 hrs.
This course explores how language works in human discourse by examining the game of languages: its players, strategies, and hidden rules.

315  Group Communication.  3 hrs.
Study of group communication processes, including problem solving, systems of group communication analysis and evaluation, in task oriented groups.  (PR: CMM 103, 104H, 207, 305 or YGS 161)

316  Legal Communication.  3 hrs.
The theory and practice of legal communication techniques.  The course will examine interviewing skills, negotiation skills, argument preparation skills, presentation skills, and cross examination skills.  Recommended for pre-law students.  (PR: CMM 103, 104H, 207, 305 or YGS 161)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>319</td>
<td>Superior-subordinate Communication</td>
<td>3 hrs.</td>
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<td></td>
<td>Survey of principles underlying communication between superiors and subordinates in organizations. Emphasis placed upon communication strategies regarding role definition, performance feedback, development and maintenance of relationships, conflict management, leadership, decision making. (PR: CMM 103, 104H, 207, 305 or YGS 161)</td>
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<tr>
<td>320</td>
<td>Oral Interpretation of Literature</td>
<td>3 hrs.</td>
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<td>The fundamentals of reading, analyzing, and interpreting literature.</td>
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<tr>
<td>322</td>
<td>Intercultural Communication</td>
<td>3 hrs.</td>
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<td>A study of the barriers to communication across cultures and of strategies for addressing these problems. (PR: CMM 103, 104H, 207, 305 or YGS 161)</td>
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<td>345</td>
<td>Listening and Feedback</td>
<td>3 hrs.</td>
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<td></td>
<td>A study of listening/feedback behavior as an integral part of the communication process, development of listening/feedback skills, and an awareness of barriers to effective listening and feedback. (PR: CMM 103, 104H, 207, 305 or YGS 161)</td>
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<tr>
<td>370-371</td>
<td>Intercollegiate Forensics 1;</td>
<td>1 hr.</td>
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<td></td>
<td>Continuation of CMM 270-271. (PR: Permission of instructor)</td>
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<tr>
<td>401</td>
<td>Organizational Communication</td>
<td>3 hrs.</td>
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<td></td>
<td>Investigation of information flow in organizations with emphasis on identifying communication problems. (PR: CMM 303)</td>
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<tr>
<td>402</td>
<td>Rhetorical Theory</td>
<td>3 hrs.</td>
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<td></td>
<td>An exploration of theories of rhetoric from the Greek philosophers to the present. This course will examine the strategic use of symbols in persuasive discourse.</td>
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<td>406</td>
<td>Interviewing</td>
<td>3 hrs.</td>
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<td></td>
<td>Skill development in the question-answer-response process as it applies to a variety of interviewing situations.</td>
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<td>408</td>
<td>Leadership and Group Communication</td>
<td>3 hrs.</td>
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<td>A study of the variables affecting, and affected by, communication process in small groups, with particular emphasis upon leadership variables. (PR: CMM 315)</td>
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<td>409</td>
<td>Theories of Persuasion and Change</td>
<td>3 hrs.</td>
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<td></td>
<td>Study of the relationship between persuasion and social change, including theories of attitude and behavioral change and contemporary theories of persuasion.</td>
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<tr>
<td>411</td>
<td>Communication Study and Research</td>
<td>3 hrs.</td>
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<tr>
<td></td>
<td>Introduction to the advanced study of theory and research areas with emphasis on communication research methods and reporting. (PR: Senior majors in Communication Studies; CMM 303)</td>
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<tr>
<td>413</td>
<td>Theories of Interpersonal Communication</td>
<td>3 hrs.</td>
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<td></td>
<td>A survey and analysis of theories related to interpersonal communication in relationships. Emphasis is on the communication processes and contingencies underlying relationship development, maintenance, and disengagement in various interpersonal contexts. (PR: CMM 213)</td>
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<tr>
<td>420</td>
<td>Communication and Conflict</td>
<td>3 hrs.</td>
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<td>An exploration of the theory, research, and practice of communication in understanding and negotiating interpersonal conflict.</td>
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<tr>
<td>421</td>
<td>Gender and Communication</td>
<td>3 hrs.</td>
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<td>An exploration of gender as an organizing principle for communication.</td>
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<tr>
<td>441</td>
<td>Development and Appreciation of Film Since 1930</td>
<td>3 hrs.</td>
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<td></td>
<td>Study of important directions in modern film, including style, genre, and the relationship to contemporary society. A variety of films will be viewed for analysis.</td>
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<tr>
<td>450</td>
<td>Direction of Speech Activities</td>
<td>3 hrs.</td>
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<td>Direction of extracurricular speech activities: assemblies, forensic events, etc.</td>
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<tr>
<td>456</td>
<td>Computer-Mediated Communication</td>
<td>3 hrs.</td>
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<td>This course explores the impact of computer-mediated communication on human organization.</td>
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<tr>
<td>474</td>
<td>Health Communication</td>
<td>3 hrs.</td>
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<td>Explores communication demands of healthcare and health promotion, examines communication controversies in the modern health care system, and examines communication strategies to resolve health care problems. (PR: Junior status or permission)</td>
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<tr>
<td>476</td>
<td>Communication for Classroom Teachers</td>
<td>3 hrs.</td>
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<td>Knowledge and utilization of interpersonal communication skills in all teaching-learning environments.</td>
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<tr>
<td>478</td>
<td>Senior Seminar</td>
<td>3 hrs.</td>
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<td>Capstone experience. The development, organization, revision and presentation of major projects that serve to demonstrate the student's competence in the discipline. (PR: CMM 411)</td>
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<tr>
<td>480-483</td>
<td>Special Topics in Communication Studies</td>
<td>1-4; 1-4; 1-4; 1-4 hrs.</td>
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<tr>
<td>485-488</td>
<td>Independent Study</td>
<td>1-4; 1-4; 1-4; 1-4 hrs.</td>
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<td>(PR: Permission of department chair)</td>
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</tbody>
</table>
490  Internship. 1-4 hrs.  
(PR: Permission of department chair)

495H-496H Readings for Honors in Communication Studies. 4; 4 hrs.  
Open only to speech majors of outstanding ability. See Honors Courses.  (PR: Permission of department chair)

497-498 Instructional Television Course. 1-4 hrs.  
A course based upon Instructional Television Series broadcast by public television. The student is responsible for viewing the series on the air and satisfying all course requirements announced by the department.

COMPUTER SCIENCE AND SOFTWARE DEVELOPMENT (CSD)

101  Computers and Data Processing. 3 hrs. I, II, S.  
Computer literacy. Introduction to fundamental concepts and skills of computing. Includes terminology, control statements, program execution, disk handling. Hands-on experience in word processing, spreadsheets, databases, electronic mail.

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.  
(PR: Permission of instructor)

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.  
(PR: Permission of Instructor)

485-488 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.  
(PR: Permission of instructor)

COUNSELING (CR)

100 Career Planning for Undecided Students. 1 hr.  
Designed for undecided college students. Helps explore career options and majors. Topics include interest testing, career information, decision-making skills, and job finding strategies. Course does not count toward graduation.

260 Peer Counseling. 3 hrs.  
Theory, practice, and intervention of peer helping relationships. Demonstration and practice of basic helper skills for resident advisors. Does not satisfy requirements for core courses nor restrictive electives.

261 Introduction to Group Guidance. 3 hrs.  
A Counselor Leadership training course focusing upon a systematic approach to selecting a leadership style. Specific areas include leadership theory, how to conduct groups, delegation, and goal setting. Not for C&R majors.

262 Alcohol Counseling by Peers. 1 hr.  
History and practice of alcohol prevention and intervention by peer helpers. Designed to meet the needs of resident advisors. Does not satisfy requirements for core courses nor restricted electives.

263 AIDS Awareness. 1 hr.  
Course designed to increase awareness of Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome, including: the virus, psychosocial aspects, legal and religious issues, prevention, treatment.

280-281 Special Topics. 1-4; 1-4 hrs.  
(PR: Permission of department chairman)

306 Introduction to Counseling & Rehabilitation. 3 hrs.  
Introduction to the fields of counseling, various mental, physical and social disabilities, careers in Counseling and Rehabilitation, Counseling and Rehabilitation services and orientation processes.  
(CR: CR 370)

320 Community Resources. 3 hrs.  
Study of available resources in the community and their utilization in providing rehabilitation services.

370 Clinical Placement. 3 hrs.  
Orientation to helping service agencies and practice in developing interviewing skills under professional supervision. A thirty-hour practical experience involving active contact under supervision enables students to explore their own abilities, to try the helping role, and to get acquainted with clients and helping agencies. (CR: CR 306)

415 Occupational and Career Development. 3 hrs.  
Study of career choice theory, career change, counseling approaches in career selection and resources to assist in career choice.
Job Placement. 3 hrs.
Study of techniques for diagnostic interviewing, work adjustment, job development, and job placement. The course offers practical and theoretical ways to understand and carry out the placement of handicapped individuals in employment.

Counseling Theories and Techniques. 3 hrs.

Case Development: Process and Management. 3 hrs. Study of systematic development of casework to include case finding, follow-up provision of services, case recording and time management. (PR: CR 306, 370 or permission of instructor)

Research in Counseling and Rehabilitation. 3 hrs.
A seminar study of the problems in counseling/rehabilitating special disability groups (mentally retarded, mentally ill, alcoholic, public offender, disadvantaged) as well as research into these and other unmet needs in counseling/rehabilitation today. (PR: CR 306, 425 or permission of instructor)

Group Process and Analysis. 3 hrs.
Study and practice of dynamics involved in task and therapeutic groups; a thorough analysis of group process. (PR: Permission of instructor)

Manual Communication. 3 hrs.
Psychological characteristics of hearing impaired and techniques of manual communication.

Internship Seminar. 2 hrs. S.
Group review and synthesis of internship activities, counseling approaches, and special problem areas. The course offers an opportunity to analyze and process the experiential activities of the internships. (PR: CR 306, 370, 425, 430, 470 and permission of instructor. CR: CR 490)

Advanced Manual Communication. 3 hrs.
Advanced course in the grammar, syntax and idioms of American Sign Language and a comprehensive overview of the effect of hearing impairment. Emphasis will be upon communicating in ASL. (PR: CR 445 or 545)

Crisis Intervention. 3 hrs.
This course is directed to anyone who at some time has felt inadequate in responding effectively to people in crisis. Topics will include situational and developmental crises. Clinical experience required.

Death and Dying. 3 hrs.
Includes three areas of emphasis: To enable the student to come to grips with personal attitudes toward death and dying; to explore attitudes of society toward death; and to develop skills in managing the crisis of death, terminal illness and bereavement.

Professional Development. 1-4; 1-4; 1-4; 1-4 hrs.
To meet needs of school, student personnel, mental health, and other workers. Credit may be used for certificate renewal and salary upgrading, but not in degree programs; titles vary. (CR/NC)

Advanced Practicum in Counseling. 3 hrs.
Practical experiences in counseling interviews under professional supervision. (CR: CR 425, 448)

Health and Wellness Counseling. 3 hrs.
Designed to help counselors deal with lifestyle issues related to physical well-being and to demonstrate how health professionals can use counseling interventions in their work (PR: COUN 425 or permission)

Hypnosis: Implications and Applications for Counselors. 3 hrs.
An introduction to hypnosis and its application in a counseling framework. Emphasis will be upon the Milton H. Erickson model by hypnosis. (PR: CR 425 or 614, or special permission)

Multicultural Perspectives in Counseling. 3 hrs.
Recognize and use appropriate resources for effective counseling of people of different cultural, ethnic, social, class, racial, geographic, or other backgrounds. Learn when counseling is appropriate and in what form.

Prevention and Treatment of Addictions. 3 hrs.
Course topics will include historical, medical, psychological, family dynamics of the disease process, and treatment modalities which enhance the likelihood of successful counseling with the dependent person and indirect victims. (PR: 306, 370 or permission)

Counseling With Parents. 3 hrs.
Consideration of effective parent counseling primarily from an Adlerian point of view. Techniques for counselor intervention via lecture, demonstration and laboratory experiences.

Stress Management Counseling. 3 hrs.
Provides beginning counselors and others with comprehensive information and strategies for successful management of stress and its consequences. Students explore theoretical and practical alternatives in counseling the stressed individual.
478 Counseling with the Elderly. 3 hrs.
Counseling techniques and theories applied to problems of the elderly.

479 Pharmacology in Counseling. 3 hrs.
Provide basic understanding of the role of therapeutic drugs in the treatment of psychiatric disorders, familiarize with most commonly prescribed drugs, side effects, and adverse reactions in specific mental illnesses. (PR: CR 306, 370)

480-483 Special Topics. 1-4; 1-4; 1-4 hrs.
(PR: Permission of department chairman)

485-488 Independent Study. 1-4; 1-4; 1-4 hrs.
(PR: Permission of department chairman)

490 Counseling Internship. 10 hrs. S.
Participation in counseling process with a variety of individuals under supervision of cooperating agencies. (PR: CR 306, 370, 425, 430, 470. Senior standing, majors only and overall 2.0 average and permission of instructor. CR: CR 449)

491-494 Counseling Workshop. 1-4; 1-4; 1-4; 1-4 hrs.
A practical, participatory course designed for advanced students and professionals in the counseling field or related areas.

495H-496H Readings for Honors in Counseling. 1-3; 1-3 hrs.
(PR: Permission of department chairman). See Honors Courses.

497 Family Counseling. 3 hrs.
Introductory course in current theory and practice in family counseling. Theoretical material on communication and structural approaches to family counseling. Reading, lecture and experiential exercises.

498 Introduction to Marriage Counseling. 3 hrs.
Covers the many dimensions marriage counselors deal with, including premarital counseling; the marriage contract (legal and extralegal contracts); marital decision making; divorce counseling; sexual dysfunction; financial counseling; spouse beating; alternatives to marriage; and relationships among the elderly.

499 Principles and Practices of Counseling. 3 hrs.
The objectives, principles, and practices of counseling. (Not open to undergraduate C&R majors)

CRIMINAL JUSTICE (CJ)

211 Introduction to Law Enforcement. 3 hrs.
Basic course dealing with agencies involved in administration of justice; history and organization of local, state, and federal agencies; courts, trial, jails, and prisons; probation and parole.

231 Introduction to Corrections. 3 hrs.
Basic course in the American correctional system; study of the history of corrections, philosophy of punishment and correction, correctional institutions, programs, and services, and contemporary issues and problems.

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.

301 Advanced Legal Research. 3 hrs.
Gives the student additional experience in legal research and introduces the skills required in drafting legal documents. Capstone Experience. (PR: LAS 211)

311 Police Administration I. 3 hrs.
First level supervision of employee morale and discipline; selection, training, placement, promotion; techniques of leadership and decision making.

312 Criminal Investigation. 3 hrs.
Investigation methodology, relations of the detective with other police divisions; modus operandi; sources of information; surveillance, interrogation, follow-up procedures. (PR: CJ 211)

321 Criminal Justice Administration. 3 hrs.
A survey course of the criminal justice system, including the structure, functions, and decision processes of those organizations that manage the problem of crime: the police, courts, and corrections; focus on the legal foundations of the processing of offender from arrest to sentencing.

322 Criminal Law. 3 hrs.
History and development of criminal law, elements of a crime, parties to a crime, types of offenses. (PR: CJ 321)

323 Criminal Procedure. 3 hrs.
Admissibility of evidence and confessions, recent civil rights decisions, reconciling individual rights and community interest in law and order. (PR: CJ 321)

331 Probation and Parole. 3 hrs.
Supervision of offenders in the community, including history, philosophy, legal foundations, strategies, professional roles and contemporary models, programs, and services. (PR: CJ 231)
Seminar in Crime Prevention. 3 hrs.
Techniques for crime prevention analyzed from two orientations: crime prevention by environmental engineering and crime prevention by behavior modification. (PR: CJ 211)

Theoretical Criminology. 3 hrs.
A critical analysis of the major criminological theories and their empirical foundations. Current theory and research receive greater emphasis than historical development. Capstone Experience

Police Administration II. 3 hrs.
Functions and activities of police agencies. Police department organizations, responsibilities of upper level administrators. Current administrative experimentation on law enforcement agencies.

Community Relations. 3 hrs.
Law enforcement and the community; relation to schools, public education functions of law enforcement personnel; community attitudes. (PR: CJ 211)

Business and Industry Security. 3 hrs.
Selection, training and staffing of a security force; security devices available; techniques of internal security; ground security; security techniques applicable to personnel selection; legal problems. (PR: CJ 211)

Criminal Justice Administration. 3 hrs.
Study of the historical development, legal foundations, and present institutions, programs, and services in the juvenile justice system. (PR: CJ 321)

Criminal Rehabilitation. 3 hrs.
The historical, legal, and philosophical foundations of criminal rehabilitation; contemporary approaches to intervention, professional roles, and interpersonal skill development. (PR: CJ 231)

Correctional Institutions. 3 hrs.
Analysis of the theory of organizations and administration of correctional institutions; principles of institutional corrections. (PR: CJ 231)

Correctional Administration. 3 hrs.
Objectives of correctional institutions; records; personnel, program development, security; educational programs. (PR: CJ 231)

Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
Specialized courses of contemporary interest. (PR: Consent of the instructor)

Independent Study. 1-4; 1-4; 1-4 hrs.
This course permits the student to undertake supervised research (field or library) in any area where there is no appropriate course. (PR: Consent of the instructor)

Internship. 1-6 hrs.
The placement of an individual into a criminal justice agency (police, probation, courts, jails) to observe and participate in its operation. Grading is CR/NC only. (PR: Consent of the instructor)

Readings for Honors in Criminal Justice. 2-4; 2-4 hrs.
Open to criminal justice majors of outstanding ability. Study may deal with any aspect of criminal justice. Wide reading and comprehensive understanding of the subject are required. (PR: Consent of department chairman.) See Honors Courses.

CURRICULUM AND INSTRUCTION (CI)

NOTE: The prerequisites ATED 4, ATED 5, and ATED 6 refer to different levels of Admission to Teacher Education. Contact the Associate Dean of Education and Human Services for additional information.

Mathematics Education: Mathematics for Elementary Teachers, I. 3 hrs. I, II, S.
Study of sets, logic, numeration systems, number systems, and number theory using an inquiry, laboratory oriented approach. (PR: MTH 121 or MTH 123 or MTH 130A, MTH 130E)

Introduction to Computers in the Classroom. 1 hr. I, II, S.
The introduction of selection and evaluation techniques of computer courseware and hardware for classrooms K-12 with consideration for CAI, CMI and specific skills for K-12 students.

Mathematics Education: Mathematics for Elementary Teachers, II. 3 hrs. I, II, S.
Study of elementary mathematics including structure of the real number system, statistics, probability, informal and transformational geometry, and basic algebraic operations with emphasis on problem solving and teacher strategies. (PR: CI 101 and MTH 121)

Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
297-298 Instructional Television Course. 1-4 hrs.
A course based upon an Instructional Television Series broadcast by public television. The student is responsible for viewing the series on the air and satisfying all course requirements announced by the division.

303 Literature for Adolescents. 3 hrs.
A study of the various types of literature appropriate to the needs, concerns, and interests of the adolescent. (PR: ENG 102, six hours of literature)

310 Special Needs in Early Childhood Education. 3 hrs.
Emphasis will be given to enhancing the success of diverse learners through intervention strategies, family involvement, and interdisciplinary service delivery.

321 Early Childhood Curriculum and Methods. 3 hrs.
Study of factors shaping curriculum and exploration and assessment of appropriate curriculum for young children in transition from pre-operational to concrete operational stages of development. Field experience included. (PR: Admission to Teacher Education)

342 Literature and Language Arts. 3 hrs. I, II, S.
A unified method for developing basic reading-language principles derived from innovative and practical classroom experiences and approaches that include application of latest research relevant to reading-language behavior.

343 Introduction to Teaching Reading: Early Childhood Education and Middle Childhood Education. 3 hrs. I, II.
Presenting modern techniques and practices in the teaching of reading. (CR: CI 446)

345 Critical Reading, Writing, and Thinking. 3 hrs.
This course examines strategies for learning from text, studying different types of textual materials, monitoring learning, and integrating oral and written discourse. (PR: Admission to Teacher Education)

401 Middle Childhood Curriculum. 3 hrs. I, II, S.
Study of procedures for creating a functional middle childhood curriculum with emphasis upon the needs of middle childhood learners. (PR: ATED 4)

403 Methods and Materials of Teaching in the Middle Childhood Grades. 3 hrs. I, II, S.
Study of methods appropriate for teaching in the middle childhood grades, and production and utilization of materials and resources in these grades. Clinical experience included. (PR or CR: ATED 4)

405 Elementary Education: Supervised Student Teaching. 4-12 hrs. I, II.
All-day teaching under supervision in cooperating schools; periodic seminars, conducted by University faculty, accompany student teaching. (PR: ATED 6)

410 Early Childhood Education: Supervised Student Teaching. 4-6 hrs. I, II.
All-day kindergarten teaching under supervision in cooperating schools; periodic seminars, conducted by University faculty, accompany student teaching. (PR: ATED 6)

415 Integrated Methods and Materials: Secondary Education. 3 hrs.
General secondary/middle school course with emphasis on instructional standards and objectives, methods, and materials of the disciplines. A clinical experience provides observation and teaching. (PR: ATED 5)

417 Comprehensive Classroom Discipline Techniques. 3 hrs. I, II, S.
Identification of common classroom discipline problems and techniques for dealing with behavioral incidents in school settings K-12.

418 Classroom Motivation. 1-3 hrs. I, II, S.
Classroom motivation with an emphasis on theoretical constructs and practical applications for teachers of students from early childhood through adolescence.

427 Introduction to Autism. 3 hrs.
This is a lecture-discussion course designed to survey current autism research, definitions, medical issues, differential diagnosis, treatment and educational methods for autistic children, youth, and adults. (PR: Permission of instructor)

442 Instructional and Classroom Management: Elementary Education.
This course allows elementary education students to critically examine a variety of classroom management strategies and educational issues that impact instruction. (PR: ATED 4)

446 Reading Education: Individual Assessment and Prescription Language Instruction. 3 hrs. I, II.
Study of reading-language difficulties, diagnostic devices and techniques, and preventive and prescriptive methods and materials. (CR: CI 343)

447 Integrated Reading, Language Arts, and Social Studies Methods: Elementary Education. 3 hrs.
General elementary education course with emphasis on instruction standards and objectives, methods, and materials for Reading, Language Arts, and Social Studies. (PR: ATED 5)

448 Integrated Math and Science Methods: Elementary Education. 3 hrs.
General elementary education course with emphasis on instructional standards and objectives, methods, and materials for math and science.
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449 Instructional and Classroom Management: Secondary Education. 3 hrs. I, S. 
Classroom management with emphasis on practical techniques for dealing with management problems in secondary and middle school settings. (PR: ATED 4)

450 Secondary Education: Supervised Student Teaching. 4-12 hrs. I, II. 
All-day teaching under supervision in cooperating schools; periodic seminars conducted by University faculty accompany student teaching. (PR: ATED 6)

452 Middle Childhood Education: Supervised Student Teaching. 4-6 hrs. I, II. 
All-day student teaching in cooperating middle schools; periodic seminars conducted by university faculty accompany student teaching. (PR: ATED 6)

459 Multicultural Influences in Education: Techniques and Strategies. 3 hrs. I, S. 
Multicultural education with an emphasis on methods and materials for teaching students from diverse cultural backgrounds.

460-464 Professional Development: 1-3 hrs. 
Courses designed to meet the specific inservice needs of public school personnel. Credit may be used for certificate renewal and salary upgrading but not in degree programs. CR/NC grading.

470 Level II Clinical Experience. (Corequisite with the courses designated; no credit hours) 
A Level II Clinical Experience teaching in a secondary public school. An opportunity to put theory into classroom practice. (PR: ATED 5; CR: CI 415)

471 Level II Clinical Experience. (Corequisite for courses listed, no credit) 
A Level II Clinical Experience teaching in an elementary school. An opportunity to put theory into classroom practice. (PR: ATED 5; CR: CI 447)

472 Level II Clinical Experience. 
A Level II Clinical Experience teaching in an elementary or secondary public school. An opportunity to put theory into classroom practice. For music majors only. (PR: ATED 5; CR: EDF 319)

480-483 Special Topics. 1-4; hrs. I, II, S. 

485-488 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs. 
Permission of chairman. Requires 2.5 GPA, limit of 6 hours to be used in professional education as a specialization.

495H-496H Readings for Honors in Education. 1-3; 1-3 hrs. 

497-498 Instructional Television Course. 1-4 hrs. 
A course based upon an Instructional Television Series broadcast by public television. The student is responsible for viewing the series on the air and satisfying all course requirements announced by the division.

CURRICULUM AND INSTRUCTION SPECIAL EDUCATION (CISP)

320 Special Education: Survey of Exceptional Children. 3 hrs. I, II. 
An introduction to the study of children who deviate from the average in mental, physical, and emotional characteristics, including a study of the characteristics of such children and the adaptation of educational procedures to their abilities and disabilities.

420 Special Education: Introduction to the Resource Room. 3 hrs. I, II. 
Examination of procedures needed for implementation of the Resource Room model for mildly handicapped children. The course includes a review of the Mainstreaming movement, interpersonal relations, and skills necessary for maintaining the resource room. (PR or CR: CI 320)

421 Special Education: Children with Exceptionalities. 3 hrs. I, II, S. 
Behavioral characteristics of children with exceptional development, dynamics of family-community interaction, and attitudes towards exceptional conditions. Implications for amelioration and educational planning. (Not for Special Ed majors) (PR: ATED 4)

423 Special Education: Introduction to Learning Disabilities. 3 hrs. I, II. 
An integrated, concise overview of specific learning disabilities; definitions, etiology; observable and identifiable symptoms and implications for amelioration. (PR: CI 320)

424 Special Education: Introduction to Emotional Disturbances. 3 hrs. I, II. 
Characteristics of emotional-social disturbances in children; dysfunction in behavior, academic achievement, and social relationships; etiology and educational implications are presented. (PR: CI 320)

426 Introduction to the Gifted. 3 hrs. I, S. 
An overview of giftedness in children; definitions, etiology, observable characteristics, and implications for educational agencies. (PR: CI 320)

429 Introduction to Physically Handicapped. 3 hrs. I, S. 
An introduction to the characteristics and needs of crippled and other health-impaired children. The medical aspects of physically handicapping conditions are considered. (PR: CI 320; CR: Field experience)

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433 Special Education: Introduction to Mental Retardation. 3 hrs. I, S. 
Acquaints teachers with the characteristics and needs of the mentally retarded child. The status of the mentally retarded in our society and the impact of mental retardation on education. (PR: CI 320. CR: Field experience)

434 Student Teaching: Physically Handicapped. 4-6 hrs. I, II. 
All-day supervised teaching in special classes in cooperating public schools and/or hospital settings; periodic seminars conducted by University faculty accompany student teaching. (PR: CI 320, 429, 431)

435 General Special Education Programming. 3 hrs. 
Address the educational/curricular needs of students with mild learning problems in the categorical areas of mental retardation, behavior disorders, and specific learning disabilities.

439 Assessment in Special Education. 3 hrs. 
Educational assessment and academic diagnostic evaluation for remediation/amelioration. Provides an understanding of teacher assessment and its implication for programming for exceptional children.

440 Special Education: Student Teaching with Mentally Retarded Children. 4-6 hrs. I, II. 
All-day supervised teaching in special classes in cooperating schools; periodic seminars conducted by University faculty accompany student teaching. (PR: ATED 6)

453 Special Education: Curriculum and Methods for the Mentally Retarded. 3 hrs. I, II. 
Principles and current trends in curriculum development are reviewed and evaluated toward the development of specific curriculums for the mentally retarded. Methods and materials are presented in relation to this development. (PR: CI 320)

454 Working with Families of Exceptional Students. 3 hrs. 
Principles and information designed to give the student an understanding of the needs and rights of families of exceptional children and techniques to involve families successfully in their children's education.

CYTOTECHNOLOGY (CYT) 
(Prerequisite: Admission is subject to approval by the Admissions Committee of the School of Cytotechnology.)

438 Cytological Methodology. 3 hrs. I. 
Routine methods in cytology (specimen processing, staining, record keeping). Special methods (filtration, concentrations). Clinical microscopy (routine and special methods: light, phase, dark field).

439 Elementary Cytology. 3 hrs. I. 
Fundamentals of cell structure, embryology, microbiology, and mycology as related to cytodiagnosis; characteristics of benign and malignant cells.

440 Genital Cytology. 6 hrs. I. 
Cytology of the female genital tract in health and disease. The study of cells in normal, benign, and malignant stages of development.

441 Cytology of the Respiratory Tract. 3 hrs. II. 
Cytology of the respiratory epithelium in health and disease. Study of the cell in normal conditions, in benign and malignant pathological conditions.

442 Cytology of the Body Cavities. 3 hrs. II. 
Cytology of the pericardial, pleural, and abdominal cavities. Study of primary and metastatic tumors.

443 Cytology of the Urinary Tract. 3 hrs. II. 
Cell changes resulting from benign diseases and malignant tumors of the breast.

444 Cytology of the Breast. 3 hrs. II. 
Cell changes resulting from benign diseases and malignant tumors of the breast.

445 Cytology of the Gastro-Intestinal Tract. 3 hrs. S. 
Cytology of the alimentary tract in health and disease.

446 Research in Cytotechnology. 1 hr. II. 
Directed independent cytodiagnostic research in the hospital setting. Capstone experience.

447 Advanced Methods in Cytology. 4 hrs. S. 
Methods and procedures of tissue culture, chromosome analysis, and microphotography. Study of chromosome anomalies including Turner's, Down's, and Klinefelter's Syndrome. Study of pure mosiac anomalies.

DANCE (DAN) 

101 Introduction to Dance. 3 hrs. 
Introduction to dance forms, principles of dance techniques, and role of dance in society.

205 Dance for the Musical Theatre. 3 hrs. 
Introduction to various dance forms and styles necessary for musical theatre. Training in rhythm and coordination with emphasis on elementary techniques and routines.
210  Tap Dance. 2 hrs.
Technique, styles, and rhythmic structures of tap dance for the theatre. Emphasis on steps, movement, and routines. Course may be repeated for total of four hours credit. 2 lec.-2 lab.

230  Ballet Technique. 2 hrs.
Classical ballet technique, exercise, routine, and drill for the dancer. Course may be repeated for a total of eight hours credit. 2 lec.-2 lab.

270  Dance Practicum. 1 hr.
Opportunity to study and perform concert dance. (PR: Permission of instructor; may be repeated for a total of 4 hours credit)

280-283  Special Topics in Dance. 1-4; 1-4; 1-4; 1-4 hrs.
Program of study not normally covered in other courses. Topics vary from semester to semester. (PR: Permission of department chairman)

301  Dance for Athletes. 3 hrs.
A course in Ballet and Modern Dance designed specifically for the student-athlete involved in intercollegiate competition.

316  Modern Jazz Dance. 2 hrs.
Techniques, styles, and rhythmic structures of modern jazz dance. Emphasis on increasing personal expression and dance movement repertoire. Course may be repeated for total of six hours credit. 2 lec.-2 lab.

320  Modern Dance Technique. 2 hrs.
Principles, movement, and performance techniques in modern dance. Course may be repeated for total of four hours credit. 2 lec.-2 lab

DIETETICS (DTS)

201  Nutrition and Food Technologies I.
Principles of human nutrition; exercise, health and disease, and life cycles and principles of food selection and food preparation.

202  Nutrition and Food Technologies II.
Continuation of principles of human nutrition; exercise, health and disease, and life cycles and principles of food selection and food preparation.

301  Foodservice Safety and Systems Management I.
The basic principles of foodservice management, and an in-depth look at food safety in foodservice establishments. Laboratory/field experiences provide students a better perspective of foodservice management in various institutions. (PR: MTH 127 or 130; DTS 202; CR: BSC 250 or 320)

302  Foodservice Safety and Systems Management II.
A continued study of basic principles of foodservice management. Emphasis on quantity procurement, production, distribution, and service in foodservice with laboratory experiences in local foodservice institutions, facility planning and design. (PR: DTS 301)

304  Fundamentals of Meal Planning.
Problems involved in planning, preparing, and serving nutritionally adequate meals. Emphasis on management of special nutritional needs, time, money, and energy. (PR: DTS 201 and 202)

310  Life Span Nutrition.
Scientific principles of human nutrition and identification of nutritional needs for each stage of the life cycle, including maternal/prenatal, infant, childhood, teens, and aging.

320  Intermediate Nutrition.
Scientific principles of human nutrition; food sources of nutrients; planning and evaluating diets for healthy individuals. (PR: DTS 201 and 202)

403  Advanced Nutrition.
Metabolism of food nutrients as related to nutritional requirements of man. Reports of current, research and other topics to add depth and perspective in nutrition. (PR: CHM 365 or concurrent BSC 228, DTS 201 and 202)

404  Diet Therapy.
Present-day concepts of the relation of nutrition and diet to the prevention and treatment of disease. (PR: FCS 210, CHM 204 or 212; BSC 228)

409  Community Nutrition.
Identification of nutritional needs of a community and the role of the community dietitian in relation to these needs, Examination of community nutrition programs that are available. (PR: DTS 320)

460  Research in Dietetics.
An introduction to quantitative and qualitative research methodologies with application in the field of dietetics. (PR: Admission to Dietetics major)

468  Chemistry of Foods.
Experimental study of chemical and physical factors affecting food preparation. (PR: DTS 201, 202, 304 and CHM 365)
469 Medical Nutrition Therapy I.
Principles of medical nutrition therapy in clinical primary care. Utilization of case studies to develop 
the ability to critically analyze assessment data and determine care plans. (PR: DTS 304 and 403, 
BSC 228, CMI 365)

470 Medical Nutrition Therapy II.
Principles of medical nutrition therapy in acute care. Utilization of case studies to develop the ability 
to critically analyze assessment data and determine care plans. (PR: DTS 304,403, and 469; BSC 
227 and 228; CIM 365)

476 Senior Seminar in Dietetics.
Discuss political, legal, social, and cultural influences on dietetics. Professional standards of 
practice and ethics will be addressed as well as the internship application process. This course is the 
synthesis of dietetics program content. (PR: Admission to the Dietetics major)

478 Senior Practicum.
A capstone course designed for observational and practical experiences for students in a variety of 
clinical, community, and foodservice situations.

ECONOMICS (ECN)

100 Current Economic Problems and Controversies. 3 hrs. I, II.
An introduction to economics that focuses on current economic problems, as well as why economists 
often disagree about the causes of, and solutions to these problems. (Not open to LCOB students who 
have completed ECN 250 or 253)

200 Survey of Economics. 3 hrs. I, II.
Major emphasis given to microeconomic topics such as supply and demand, market structure, and 
international trade. Macroeconomic concepts and aggregate supply-aggregate demand model are 
examined. (Not open to students in the Lewis College of Business or to students who have completed 
ECN 250)

250 Principles of Microeconomics. 3 hrs. I, II, S.
Principles of scarcity, opportunity cost, and supply and demand are developed along with price and 
wage determination in the marketplace. International trade and policy problems are also examined. 
(Not open to students who have completed ECN 200)

250H Principles of Microeconomics Honors. 3 hrs.
An accelerated course for specially selected freshmen and sophomores. Will substitute for ECN 250. 
(PR: GPA of 3.0)

253 Principles of Macroeconomics. 3 hrs. I, II, S.
Emphasis on macroeconomic models that explain the behavior of output, employment, and the price 
level in open and closed economies. Other topics include monetary and fiscal policies and economic 
growth. (PR: ECN 200 or 250).

253H Principles of Macroeconomics Honors. 3 hrs.
An accelerated course for specially selected freshmen and sophomores. Will substitute for ECN 253. 
(Prerequisite ECN 200, or 250 and a GPA of 3.0)

280-283 Special Topics. 1-4; 1-4; 1-4, 1-4 hrs.

310 Money and Banking. 3 hrs. I, II.
Money, credit and credit institutions in the United States; monetary, fiscal, and banking functions of 
the Federal Reserve System. (PR: ECN 250, ECN 253, ACC 216, MGT 218, MTH 203)

326 Intermediate Macroeconomic Analysis. 3 hrs. II.
National income accounting; macroeconomic theories of output determination, employment, inflation, 
and growth; monetary and fiscal policies. (PR: ECN 250, ECN 253, ACC 216, MGT 218)

328 Intermediate Microeconomic Analysis. 3 hrs. I.
Microeconomic theories of the production and pricing of goods and services, payments to the factors 
of production. (PR: ECN 250, ECN 253, MTH 203, ACC 216, MGT 218)

332 American Capitalism. 3 hrs. II.
Analysis of American Capitalism in terms of how interacting economic, political and class systems 
allocate resources and outputs. Includes empirical evaluation of conservative, liberal and radical views. 
(PR: ECN 200 or 250, ACC 216, MGT 218, MTH 203)

340 Global Macroeconomic Issues. 3 hrs. I, II, S.
Current topics in international monetary relations, and how countries use macroeconomic policy to 
fluence their performance in the global economy, and how global events influence country perfor-
mance. Emphasis upon applications. (PR: ECN 250, ECN 253, ACC 216, MGT 218, MTH 203)

342 Economic Development of the United States. 3 hrs. II.
History of the economy; political-economic determinants of growth patterns; the evolution of corpor-
ations, unions, and other institutions. (PR: ECN 200 or 250 and 253, ACC 216, MGT 218, MTH 203)
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405 Environmental Economics. 3 hrs. I.
An application of basic economic theory to a consideration of a wide range of environmental problems including pollution, natural resource exhaustion, population and economic growth. (PR: ECN 200 or 250, ACC 216, MGT 218, MTH 203)

408 Comparative Economic Systems. 3 hrs. I.
Marxism, capitalism, communism, fascism and socialism considered as theories, movements and actual political economies. (PR: ECN 200 or 250, ACC 216, MGT 218, MTH 203)

420 International Trade. 3 hrs. II.
An introduction to the basic microeconomic models explaining the reasons for and the effects of trade among nations, trade restrictions, and regional trading arrangements. (PR: ECN 250, ECN 253, ACC 216, MGT 218, MTH 203)

423 Introduction to Econometrics. 3 hrs. II.
Combines economic theory with real data to obtain quantitative results for purposes of explanation and prediction. The development of useful economic models applicable to present day world problems. (PR: ECN 250, ECN 253, ACC 216, MGT 218, MTH 203)

440 History of Economic Thought. 3 hrs. I.
Economic theories and ideas from the earliest economists to those of Marshall and Keynes. Focus is on the Mercantilist, Classical, Marxian, Neoclassical and Keynesian economists. (PR: ECN 200 or 250, ACC 216, MGT 218, MTH 203)

456 Labor Economics. 3 hrs. I.
Theoretical and empirical analysis of labor markets, wage determination, hours of work, unemployment and inflation, unions and collective bargaining and related subjects in their social and legal contexts. (PR: ECN 200 or 250, ACC 216, MGT 218, MTH 203)

460 Economics of Developing Countries. 3 hrs. II.
Introduction to developing nations in the world economy. Focus on their economic characteristics, current economic problems, and policy issues. Interactions between the world economy and country performance. (PR: ECN 250, ECN 253, ACC 216, MGT 218, MTH 203)

466 Economics Workshop I. 2 hrs. I.
First semester of Capstone Experience. Emphasis on learning economics through public speaking exercises and evaluations of oral presentations. Development of multi-media presentation skills. (PR: ECN major and Senior Standing)

467 Economics Workshop II. 2 hrs. II.

475 Economics of Education. 3 hrs.
The educational system is analyzed through the use of microeconomics. Economic variables related to student achievement and school performance will be examined. Suggested reforms are reviewed. (PR: ECN 200 or 250, ACC 216, MGT 218, MTH 203)

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
Members of the department may teach, when necessary, any economics subject not listed among the current course offerings.

485-488 Independent Study. 1-4; 1-4; 1-4 hrs.
A research project conducted by a qualified student under guidance of a member of the department; involves gathering of data, interpretation, and presentation of findings in a written report.

490 Internship. 3-12 hrs. (CR/NC)
A supervised internship in which the student works for a business firm/agency to gain practical experience in the student’s major. The program of work and study will be defined in advance and the students performance will be evaluated. (PR: Permission of Dean)

EDUCATIONAL FOUNDATIONS (EDF)

218 Child and Adolescent Development in Schools. 3 hrs.
A basic course in the study of children’s emotional, social, mental, and physical development. Field experience required. (PR: Sophomore standing. CR: 270)

270-272 Level I Clinical Experience. (Corequisite with Educational Foundations 218; no credit hours)
A public school Clinical Experience in elementary, secondary and middle schools. An opportunity to work with faculty, staff and students in a teaching/learning environment. (CR: EDF 218)

280-283 Special Topics. 1-4 hrs.

319 Applications of Learning Theory. 3 hrs.
A study of the psychological principles which are the foundation for learning and teaching. (PR: ATED 4)
335

402 Psychology of the Middle Childhood Student. 3 hrs.
Study of developmental principles relating to the physical, cognitive, social and moral development of the middle childhood student (10-14 years old).

406 Foundations of Education. 3 hrs. I, II, S.
A survey of the historical, philosophical and sociological foundations of American education with emphasis upon current educational problems and issues. (PR: Junior standing)

415 History of Modern Education. 3 hrs.
Our debt to the ancient Hebrews, Greeks, and Romans. Emphasis also is placed upon the movements since the beginning of the Renaissance. (PR: Junior standing)

417 Statistical Methods. 3 hrs.
A foundation course in descriptive and inferential statistics as applied in education and the social sciences. (PR: Junior standing)

425 Tests and Measurements. 3 hrs.
History, philosophy and elementary statistical methods for testing, measuring and evaluating pupil behavior are studied. (PR: Junior standing)

475 Schools in a Diverse Society. 3 hrs.
Study of social, historical and philosophical foundations of U.S. schooling. Provides a basis for examining and critiquing student teaching experiences. Contributes to capstone experience. (PR: ATED 4)

480-483 Special Topics. 1-4 hrs.
485-488 Independent Study. 1-4 hrs.
495H-496H Readings for Honors in Foundations of Education. 1-3; 1-3 hrs.

ENGINEERING (ENGR)

101 Engineering Graphics. 3 hrs. I, II.
Orthographic projection; conventional representations and sections. Introduction to descriptive geometry. Introduction to computer-aided graphics. 2 lec-4 lab.

106 Computer Aided Drafting and Design for Engineers and Scientists. 3 hrs.
Principles of computer aided drafting and design for engineers and scientists using microcomputers. Use of graphic pads and plotters. 1 lec-3 lab. (PR: ENGR 101 or permission of instructor)

107 Introduction to Engineering. 2 hrs. I.
An introduction to the engineering profession; effective use of electronic calculators; significant figures and dimensional analysis; proper format for engineering computations; typical engineering problems and computations. 2 lec. (PR or CR: MTH 122 and MTH 130 or MTH 132)

108 Engineering Design. 2 hrs.
Principles of elementary engineering investigations and design. Computer applications. 2 lec. (PR: ENGR 107)

111 Computer Science for Engineers I. 3 hrs. II.
An introduction to computer programming fundamentals using a high-level language, with an emphasis on engineering-related applications; an introduction to object-oriented programming techniques (PR or CR: MTH 122 and MTH 130 or MTH 132)

112 Computer Science for Engineers II. 3 hrs. I.
A continuation of ENGR 111. Advanced concepts in objected-oriented programming techniques, including abstract and dynamic data types, pointers, inheritance, software reuse, templates, and polymorphism. (PR: ENGR 112; PR or CR: MTH 229)

201 Circuits I. 4 hrs. I.

202 Circuits II. 4 hrs. II.

204 Introduction to Digital Systems. 3 hrs.
Digital components and systems; Boolean switching algebra; the analysis and design of combinational and sequential circuits; introduction to computer architecture. 3 lec. (PR: ENGR 201)

213 Statics. 3 hrs. I.
Particle and rigid body mechanics for static force systems. 3 lec. (PR: ENGR 107; PR: MTH 229)

214 Dynamics. 3 hrs. II.
Laws of motion, work and energy, impulse and momentum, relative motion. 3 lec. (PR: ENGR 213; PR: MTH 230)
215 Engineering Materials. 3 hrs. I.
Properties and testing of engineering materials. Computer applications. 2 lec-3 lab. (PR or CR: ENGR 213)

216 Mechanics of Materials. 3 hrs. II.
Strength of materials, shear and moment diagrams, stresses in shafts, beams and columns; combined stresses, deflections; computer applications. 3 lec. (PR: ENGR 213; PR: MTH 230)

218 Fluid Mechanics. 3 hrs.
Principles of hydrostatics and hydrodynamics; computer applications. 3 lec-3 lab. (PR or CR: ENGR 214 and MTH 231)

219 Engineering Thermodynamics. 3 hrs. II.
Fundamental concepts of energy analysis; thermodynamic models; First Law and introduction to Second Law of thermodynamics; pressure, temperature, volume relationships; enthalpy and entropy. 3 lec-3 lab. (PR: MTH 230)

221 Engineering Economy. 3 hrs. I, II.
Economic selection of machines, structures, and processes. Computer applications. 3 lec. (PR: ENGR 107)

(PR: Permission of instructor)

290 Internship in Engineering. 1-4 hrs.
Supervised off-campus activities which provide professional experience in different fields of engineering. (PR: Permission)

ENGLISH (ENG)

Advanced placement in English is granted on the basis of the Educational Testing Service (ETS) Advanced Placement Test scores. See section entitled “Advanced Placement” of this catalog for details. Students with enhanced ACT scores of 34 or better should notify the Director of Writing who will then arrange for credit in ENG 101-102 to be assigned to the students’ records. Students with ACT Verbal scores of 16-17 should enroll in ENG 101B. Students with enhanced ACT Verbal scores of 18-27 should enroll in ENG 101. Students with ACT Verbal scores of 28-33 should enroll in ENG 201H.

101 English Composition I. 3 hrs.
Introduction to academic writing with emphasis on writing as a multi-stage process, critical thinking, and fundamental research strategies and skills. (PR: ACT Verbal 18-27; students with scores 14-15 should first take COM 095; those with scores 0-13 should first take COM 094)

101B Intensive English Composition. 4 hrs.
An intensive workshop course designed to help students develop basic writing skills and prepare for success in ENG 102. (PR: ACT Verbal 16-17; permission of University College)

102 English Composition II. 3 hrs.
Academic writing with an emphasis on research related writing and higher levels of critical thinking and reading. (Not open to juniors and seniors. PR: English 101 or equivalent)

201H English Composition Honors. 3 hrs. I, II.
An accelerated course in English composition. Completion of 201H with a C or better satisfies the university requirement in freshman composition. Students completing the course are awarded three additional hours of credit toward graduation. (PR: Enhanced ACT English score of 28-33)

280-283 Special Topics. 1-4 hrs.

302 Research Intensive Writing. 3 hrs.
An upper-division research intensive writing course emphasizing research strategies, critical reading and thinking, and multi-stage writing processes in a variety of academic disciplines. (PR: English 101 or equivalent, and junior or above status.)

303 Appalachian Fiction and Poetry. 3 hrs.
The study of short fiction, novels, and poetry of literary merit, reflecting the intellectual, emotional and aesthetic experience of Appalachia, including works by Dickey, Arnow, Berry, Smith, Mason and others. (PR: ENG 102 or 302, or 201H)

306 Introduction to Drama. 3 hrs.
Study of drama as a literary type from the earliest periods to 1870, with emphasis on the development and analysis of form, structure, and language. (PR: ENG 102 or 302 or 201H)

307 Modern Drama. 3 hrs.
British and American plays since 1870, with their backgrounds in foreign literatures. (PR: ENG 102 or 302 or 201H)

308 Contemporary Drama. 3 hrs.
British and American plays since 1945. (PR: ENG 102 or 302 or 201H)
309 Literature of Fantasy. 3 hrs.
Study of different forms, conventions, and styles in fantastic literature, such as in legend, fairy tale, horror story, heroic fantasy, nonsense, and romance. (PR: ENG 102 or 302 or 201H)

310 Biography. 3 hrs.
British, American, and world literature as seen through selected major biographies. The study of biography as a literary type. (PR: ENG 102 or 302 or 201H)

311 Science Fiction. 3 hrs. I, II.
Study of science fiction in its background, themes, types, analyses, and appreciation. (PR: ENG 102 or 302 or 201H)

313 Introduction to Poetry. 3 hrs.
Theory, prosody, analysis, and principal types, forms, and themes; selected examples through literary periods and cultures. (PR: ENG 102 or 302 or 201H)

315 Introduction to Novel. 3 hrs.
An introduction to the basic elements of the novel, such as forms and techniques, through careful reading of selected novels and criticism concerning them. (PR: ENG 102 or 302 or 201H)

317 English Literature to the Romantic Period. 3 hrs.
English Literature from Beowulf through Pope. (PR: ENG 102 or 302 or 201H)

319 English Literature from the Romantics to the Present. 3 hrs.
English Literature from the Romantics to the present. (PR: 102 or 302 or 201H)

320 The Political Novel. 3 hrs.
Studies in English and American novels relating significantly to political themes. (PR: ENG 102 or 302 or 201H)

321 American Literature to 1860. 3 hrs.
American Literature from the Colonial, Eighteenth Century, Federal and Romantic Periods. (PR: English 102 or 302 or 201H)

323 American Literature, 1860 to the Present. 3 hrs.
American Literature from the late Nineteenth Century to the present. Not for majors. (PR: ENG 102 or 302 or 201H)

329 Twentieth Century Novel. 3 hrs.
Criticism and analysis of principal British and American novels since 1900. (PR: ENG 102 or 302 or 201H)

331 Introduction to Short Story. 3 hrs. I, II, S.
Criticism and analysis of representative short stories, primarily British and American. (PR: ENG 102 or 302 or 201H)

335 Crime and Sensation Literature. 3 hrs.
Examines the literary responses to crime and sensational literature and discusses the artistic, cultural, and historical contexts of those responses. (PR: ENG 102 or 302 or 201H)

336 Forbidden Literature. 3 hrs.
Examines the literary responses to “banned literature” and discusses the artistic, cultural and historical contexts of those responses.

340 Introduction to African-American Literature. 3 hrs.
A survey of major writers and types of literature. (PR: ENG 102 or 302 or 201H)

341 Introduction to Ethnic Literature of the U.S. 3 hrs.
An examination of selected groups, writers, and types of literature from a cultural theory perspective. (PR: ENG 102 or 302 or 201H)

342 Women Writers. 3 hrs.
A study of women writers in cultural contexts. Surveys attitudes to women, women writers, and their work. (PR: ENG 102 or 302 or 201H)

344 Film and Fiction. 3 hrs.
The relationship between literature and cinema: analysis of literary masterpieces and the films derived from them. (PR: ENG 102 or 302 or 201H)

350 Junior Seminar in English. 3 hrs.
First of two capstone courses for majors. Develops knowledge and abilities needed by English majors through study of American literature and literary critical theory, independent research, and portfolio. (PR: 15 hours in major)

354 Scientific and Technical Writing. 3 hrs.
Types and styles of written reports required in science, government, industry, and medicine. Practical applications adapted to the needs of the individual student. (PR: ENG 102 or 302 or 201H)

360 Introduction to Creative Writing. 3 hrs.
An introduction to writing of fiction and poetry. (PR: ENG 102 or 302 or 201H)

377 Creative Writing: Poetry. 3 hrs.
Practice in writing poetry. (PR: ENG 360 or permission of instructor)
378 Creative Writing: Fiction. 3 hrs.
Practice in writing fiction. (PR: ENG 360 or permission of instructor)

402 Pre-Professional Composition and Rhetoric. 3 hrs.
Study of rhetorical invention and models of the composing process, with intensive practice in writing.
(PR: ENG 102 or 302 or 201H)

405 History of the English Language. 3 hrs.
The phonology, spelling, grammar, syntax, and vocabulary of previous language periods as background to Modern English. (PR: ENG 102 or 302 or 201H)

408 Advanced Expository Writing. 3 hrs.
Reports, theses, briefs, abstracts and other expository types. Adapted to the needs of the individual student. (PR: ENG 102 or 302 or 201H)

409 Milton. 3 hrs.
Biographical and critical study, including Milton's English poetry and prose, and his literary and intellectual milieu. (PR: ENG 102 or 302 or 201H)

410 Shakespeare's Comedies, Tragicomedies, and Romances. 3 hrs.
Intensive study of Shakespeare's comedies, tragicomedies, and late romances. Also includes the Sonnets and Venus and Adonis. (PR: ENG 102 or 302 or 201H)

411 Chaucer. 3 hrs.
The poetry of Chaucer, chiefly the Canterbury Tales, in the light of medieval tradition and critical analysis. (PR: ENG 102 or 302 or 201H)

412 Shakespeare's Histories and Tragedies. 3 hrs.
Intensive study of Shakespeare's histories and tragedies. (PR: ENG 102 or 201H or 302)

413 English Novel to 1800. 3 hrs.
Defoe, Richardson, Fielding, Burney, Radcliffe, Edgeworth, Smollett, and Sterne, with supporting study of their most important predecessors and contemporaries. (PR: ENG 102 or 302 or 201H)

414 Nineteenth Century English Novel. 3 hrs.
Austen, Scott, the Brontes, Gaskell, Dickens, Hardy, Schreiner, and others. (PR: ENG 102 or 302 or 201H)

415 Victorian Poetry. 3 hrs.
Tennyson, Browning, Arnold and others. (PR: ENG 102 or 302 or 201H)

420 Senior Seminar in Literature. 3 hrs. II.
Advanced study of forms and movements. Individual research required. Limited to English majors with senior class standing. Capstone experience. (PR: 27 hours in major and ENG 350)

421 American Literature to 1830. 3 hrs.
Study of American literature of the Puritan, Colonial, and Federal periods, including such authors as Jonathan Edwards, Edward Taylor, Benjamin Franklin, Phillips Wheatley, Anne Bradstreet, Washington Irving, and James Fenimore Cooper. (PR: ENG 102 or 302 or 201H)

422 American Literature, 1830-1865. 3 hrs.
American literature of the Romantic period, including such authors as Emerson, Douglass, Poe, Melville, Hawthorne, Whitman, Dickinson, and lesser figures of the period. (PR: ENG 102 or 302 or 201H)

423 American Literature, 1865-1914. 3 hrs.
American literature of the Realistic and Naturalistic periods, including such authors as Howells, Crane, Twain, James, Chopin, Dreiser, Chestnut, and Wharton. (PR: ENG 102 or 302 or 201H)

424 American Literature After 1914. 3 hrs.
American literature after 1914, including such authors as Faulkner, Hemingway, Cather, Mailer, Carver, Vonnegut, Morrison, and others.

425 Southern Writers. 3 hrs.
The study of selected writers of the American South from the beginnings to the present with special attention on writers after 1920. (PR: ENG 102 or 302 or 201H)

428 International Literature. 3 hrs.
Readings in contemporary literature from the non-Anglo-European world. Texts will be taken from Asian, African, South American, Australian, and other authors. (PR: ENG 102 or 302 or 201H)

433 Contemporary English Poetry. 3 hrs.
Principal poetry since the Victorian period. (PR: ENG 102 or 302 or 201H)

434 Contemporary American Poetry. 3 hrs.
Principal poetry since 1900. (PR: ENG 102 or 302 or 201H)

435 Modernism. 3 hrs.
Examines literary modernism and the artistic, cultural, and historical contexts of that movement.

Courses of Instruction  Marshall University
436 Medieval English Literature. 3 hrs.
Old English elegiac and heroic poetry; Middle English lyrics and romances; the Ricardian and Malory. (PR: ENG 102 or 302 or 201H)

437 Tudor Literature: Poetry and Prose of the 16th Century. 3 hrs.
Survey includes works by Wyatt, Philip and Mary Sidney, Spenser, Elizabeth I, Nashe, Marlowe, Raleigh, Anne Cecil, Lyly, Isabella Whitney, and Shakespeare, excluding drama. (PR: ENG 102 or 302 or 201H)

438 17th Century Literature: Poetry and Prose. 3 hrs.
Survey includes Donne and the Metaphysical poets, the Cavalier lyricists, Bacon, Browne, Lady Mary Wroth, Herbert, Jonson, Amelia Lanyer, Burton, Walton, Hobbes, and Bunyan. (PR: ENG 102 or 302 or 201H)

444 Rendering the Landscape. 3 hrs.
Representing landscape in words. Emphasis on student writing—any genre—supplemented by selected readings. Second week spent in field at state park. Lodging fee.

446 Drama of the Restoration and 18th Century. 3 hrs.
Trends, movements, and dramatic types in the English theatre of this period. (PR: ENG 102 or 302 or 201H)

447 English Romantic Poets. 3 hrs.
Emphasis on Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats. (PR: ENG 102 or 302 or 201H)

450 Western World Literature to the Renaissance. 3 hrs. I.
Major works (excluding English), with emphasis on Homer, the Greek Drama, Virgil, Dante, and Cervantes. (PR: ENG 102 or 302 or 201H)

451 Western World Literature Since the Renaissance. 3 hrs. II.
Major works (excluding English and American), with emphasis on Racine, Moliere, Goethe and principal continental fiction. (PR: ENG 102 or 302 or 201H)

455 Literary Criticism. 3 hrs.
Historical study, with application of principles. (PR: ENG 102 or 302 or 201H)

458 Contemporary Fiction: Form and Theory. 3 hrs.
Readings in contemporary fiction addressing the work in terms of formal and theoretical concerns. Cutting-edge texts that challenge our notions of genre, form, theory, and practice. (PR: ENG 102 or 302 or 201H)

462 Restoration and Eighteenth Century English Poetry and Prose. 3 hrs.
Includes works by Dryden, Swift, Pope, Johnson, Boswell, and Wollstonecraft. Emphasis on satire, biography, and literary criticism. (PR: ENG 102 or 302 or 201H)

465 Literature of War. 3 hrs.
Examines the literary responses to an individual war and discusses the artistic, cultural, and historical contexts of those responses. (PR: ENG 102 or 302 or 201H)

475 Introduction to Linguistics. 3 hrs. I, II.
The structural and descriptive approach to study of the English language. (PR: ENG 102 or 302 or 201H)

476 Modern Grammar. 3 hrs.
A descriptive analysis of the structure of present day American English, utilizing the basic theory of generative transformational grammar. (PR: ENG 102 or 302 or 201H)

478 Language, Society, and Self: An Introduction to Sociolinguistics. 3 hrs.
Sociolinguistics is the study of the effects of language in society, relevant to discourse practices, language attitudes, variations, shifts, and changes. (PR: ENG 102 or 302 or 201H)

480-483 Special Topics. 1-3 hrs. each.
(PR: ENG 102 or 302 or 201H)

485-488 Independent Study. 1-4 hrs. each.
(PR: Permission of chair)

490 Internship in English. 3 hrs.
A supervised internship. The student works for a local firm/agency to gain practical experience in the major. Arranged by student and department. Supervised by firm. (PR: permission of chair)

491 Creative Writing: Poetry Workshop. 3 hrs.
A practical and intensive class in exploring the varieties of creative expression; exercises on the creating of verse in different forms and styles. (PR: ENG 377 or permission of instructor)

492 Creative Writing: Fiction Workshop. 3 hrs.
Offers students a forum for presentation, discussion, and refinement of their work, either short stories or novels. (PR: ENG 378 or permission of instructor)

495H-496H Readings for Honors in English. 2-4; 2-4 hrs. I, II.
Open only to English majors of outstanding ability. Possible study areas include world literature, works of individual authors, etc. See Honors Courses. (PR: Permission of chair)
### Courses of Instruction

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*FAMILY CONSUMER SCIENCES (FCS)*

**110 Food Selection and Preparation.** 3 hrs.
Principles of food selection, preparation, and preservation.

**112 Clothing Construction.** 2 hrs.
Basic principles of clothing construction.

**160 Overview of the Fashion Industry.** 3 hrs.
Fashion theories and cycles are studied in relation to the textile and apparel industries. Fashion designers, international and national fashion markets, raw materials, fashion production, distribution and selling are analyzed.

**201 Family Consumer Sciences the Profession.** 1 hr.
Overview of the Family Consumer Sciences profession, its specialties, and the career path in Family Consumer Sciences. Focus is on professional growth and integration of specialties with a family focus.

**202a Food Sciences Principles.** 3 hrs.
Principles of food selection, preparation and preservation (PR: FCS majors only).

**203 Meal Management.** 3 hrs.
Problems involved in planning, preparing and serving nutritionally adequate meals. Emphasis on management of time, money and energy. (PR: FCS 110 or 202)

**210 Nutrition.** 3 hrs. I, II.
Principles of human nutrition and their application in planning and evaluating dietaries for individuals and families.

**212 Textiles.** 3 hrs.
Natural and man-made textile fibers, methods of fabrication, and finishes as related to the selection, use and care of clothing and household textiles.

**213 Advanced Clothing Construction.** 3 hrs.
Experiments in construction techniques, fabrics and design compatibility. (PR: FCS 112 or an acceptable score on clothing construction pretest)

**259 Visual Merchandising.** 3 hrs.
Use of elements and principles of design to manipulate materials—props, background, lighting, mannequins, fabrics and signing—for three dimensional display. Includes business/commercial, retail and institutional display.

**280-283 Special Topics.** 1-4 hrs.

**303 Child Development.** 3 hrs.
Care and guidance of young children two through five years in relation to their physical, emotional, mental and social development. Observation and participation in nursery school required.

**306 Family Consumer Sciences Instructional Methods.** 1 or 3 hrs.
Professional role; objectives; methods, materials, evaluations; planning educative programs for varied learners in various settings. (PR: For Education majors only, EDF 319 and FCS 305. CR: For Education majors only CI 470)

**314 Interrelationships of Near Environment.** 3 hrs.
Psychological, sociological, economic and aesthetic interrelationships in the selection of materials for the near environment in a cultural context. (PR: FCS majors only. Others by permission.)

**349 Evaluation of Ready-To-Wear.** 3 hrs.
Evaluation of ready-to-wear apparel from budget through couture price-point clothing. Analysis of construction, production and design for profitability and quality. (PR: FCS 112)

**351 Housing and Household Equipment.** 3 hrs.
Influence of family needs, social and economic trends, and physical environment on housing; analysis of building materials, equipment, and space utilization in housing.

**354 Home Furnishings.** 3 hrs.
Application of art elements and principles of design in selection, arrangement and use of furnishings and interiors of homes.

**358 Family Resource Management.** 3 hrs.
Identification of management concepts with emphasis on principles and interrelationships within framework of the family.

**359 Merchandising: Processes and Procedures.** 3 hrs.
This course encompasses costing, markup, pricing, inventory, merchandise planning and control, direct and indirect cost. (PR: MTH 121 or higher)

**401 Maternal and Child Nutrition.** 3 hrs.
Nutritional requirements during prenatal and early growth periods; surveys of nutritional status. (PR: FCS 210)

**402 Foods of the World.** 3 hrs.
Characteristics and cultural aspects of the foods of the world.
405  Quantity Food Production. 3 hrs.
Basic principles of quantity food selection, preparation and service. Laboratory application in local
food institutions. (PR: FCS 203 or consent of instructor)

406  The Vocational FCS Program. 3 hrs.
Vocational FCS at the secondary, post secondary and adult levels with emphasis on types and
organization of programs, legislation, and groups served. (PR: CI 415)

407  Food Service Systems Management. 3 hrs.
Administration of food service in institutions. (PR: MGT 320 and FCS 203)

410  Nutrition in Aging. 3 hrs.
Nutritional needs of the elderly and diseases responding to nutritional therapy. Government food
programs for the elderly. (PR: FCS 210)

414  Problems in Fashion Merchandising. 3 hrs.
This course uses case studies and experiences of students to orient them to problem-solving in the
areas related to retailing. (PR: FCS 160, 314 and 359)

415  Family Relationships. 3 hrs.
Relationships in the family during its life cycle, with some consideration of family life in other cultures.

416  Prenatal and Infant Care. 3 hrs.
Prenatal and postnatal care of the mother, development of the fetus and care of the infant throughout
the first three years.

417  Evolution of Fashion. 3 hrs.
Fashion from Ancient Egypt to the present day. Includes influences of social, political and economic
conditions on fashion as it has evolved. (PR: ART 112)

431  Guidance of the Young Child: Practicum. 3 hrs.
Techniques of guidance of young children with emphasis on adult-child interaction. Laboratory obser-
vation required. (PR: COUN 435, ATED4)

432  Parenting. 3 hrs.
Examination of current challenges, problems, and issues in the field; analysis of effective strategies for
parenting.

435  Administration of Day Care Centers. 3 hrs.
Instruction and practice in the development of day centers for three and four year old children and
administration of programs in these centers. Laboratory participation required. (PR: FCS 303)

444  Consumer Education. 3 hrs.
Analysis of economic factors related to provision of consumer goods and services, investigations of
sources of consumer information, and means of providing economic security for families.

459  Fashion Buying. 3 hrs.
Organization of retail firms, procurement of merchandise for different types of stores, planning and
managing the merchandise assortment, the buyer’s responsibilities in marketing, selling, promotion.
Human resources are analyzed. (PR: FCS 160, 359, and 471)

460-463  Professional Development. 1-4 hrs.
Courses and activities designed to meet specific inservice needs of public school personnel. Credit
may be used for certificate renewal and salary upgrading, if approved, but not in degree programs.
CR/NC grading.

471  Family Consumer Sciences Practicum. 3 hrs.
Involves application of coursework—processes, theories, systems—at the junior level—in the functional
flow of an operation related to the student’s area of study. (PR: 15 hours of FCS coursework and
permission from major advisor/program director)

472  Family Consumer Sciences Practicum. 3 hrs.
Involves application of coursework—processes, theories, systems—at the senior level—in the manage-
ment of resources within an operation related to the student’s area of study. (PR: Permission)

480-483  Special Topics. 1-4 hrs.
Independent study in a selected area of Family Consumer Sciences. May not be used to replace any
listed course.

485-488  Independent Study. 1-4 hrs.

490  Fashion Merchandising Internship. 3 hrs.
Faculty supervised, off-campus contractual work-study arrangements with clothing/ textiles related
retail businesses. Must have completed 21 hours of Family Consumer Sciences coursework and 15
hours of business coursework before placement. (PR: FCS 270)

491-494  Workshop. 2-3 hrs.
Workshop in selected areas of Family Consumer Sciences. Usually, credit for not more than two
workshops may be applied toward the degree. (PR: Senior standing)

495H-496H  Readings for Honors in Family Consumer Sciences. 1-3; 1-3 hrs.
FINANCE (FIN)

201 Personal Finance. 3 hrs.
To assist the consumer in management of personal financial affairs. Topics are consumerism, insurance, savings instruments, banking, personal expenditures and budgeting, personal taxes, house buying, introduction to investments, and estate planning. (Not open to Business majors with junior or senior standing.)

280 Special Topics. 1-4 hrs.

323 Principles of Finance. 3 hrs. I, II, S.
Business finance from viewpoints of business manager; use of financial statements, tools, and concepts for measuring and planning for profitability and liquidity. (PR: MGT 218, ACC 216, MTH 203)

325 Commercial Banking. 3 hrs. I.
Bank structure; asset and liability management; management of reserves; liquidity management; credit analysis and loan administration; costs and pricing of bank services; analysis of bank performance and capital adequacy; evolution of the “financial supermarket.” (PR: FIN 323)

343 Intermediate Financial Management. 3 hrs. I, II.
Application of financial principles to corporate business problems. Computer analysis will be utilized where appropriate. (PR: FIN 323)

350 Financial Markets and Institutions. 3 hrs. I.
An introduction to the role of money and capital markets, including the financial institutions operational in the markets, the instruments being traded, interest rate determination and the regulatory environment. (PR: FIN 323)

356 Financial Management of Health Care Organizations. 3 hrs. II.
Management of working capital, evaluation of financial data, capital budgeting, the capitalism process, and the study of third party reimbursement systems. (PR: FIN 323)

370 Principles of Investment. 3 hrs. I, II.
A study of financial market operations, security analysis and portfolio selection. Models of capital market equilibrium, trade-off between risk and return, and how to evaluate portfolio performance are also discussed. (PR: FIN 323)

425 Portfolio Analysis and Management. 3 hrs. II.
Analytical procedures for valuing various financial securities and techniques for the creation and maintenance of portfolios. (PR: FIN 323)

431 Futures and Options. 3 hrs. II.
To introduce options and futures, their market microstructure, their theoretical foundation pertaining to pricing and hedging with such contracts, and their uses. (PR: FIN 370)

440 International Financial Management. 3 hrs. II.
International financing techniques and the role of finance in multinational organizations. (PR: FIN 323)

470 Financial Policies and Strategies. 3 hrs. I, II.
Financial planning, working capital management, capital budgeting, divided policy and comprehensive problems. Capstone Experience. (PR: FIN 370)

480 Special Topics. 1-4 hrs.
Study of an advanced topic not normally covered in other courses. Finance majors only, with permission of department chairman.

485-488 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.

490 Internship. 3-12 hrs. (CR/NC)
A supervised internship in which the student works for a business firm/agency to gain practical experience in the student’s major. The program of work and study will be defined in advance and the student's performance will be evaluated. (PR: Permission of Dean)

FINE ARTS (FA)

101 Introduction to the Arts. 3 hrs. I. II. III.
An introduction to art, music and theatre which explores the relationships and distinctions among the arts.

FRENCH (FRN)

101-102 Elementary French. 3; 3 hrs. I, II, S.
Pronunciation, conversation, reading, and composition with emphasis on aural/oral development. (PR for 102, French 101 or one unit credit of high school French or departmental examination)

161R-162R Elementary French Reading Approach. 3; 3 hrs. I, II.
Emphasis on rapid development of reading and comprehension skills through the recognition of patterns based on the act of reading French itself and intensive word study. Taught in English. Not open to majors. (PR for 162R: FRN 161R)

342 Courses of Instruction
203 Intermediate French. 3 hrs. I, II, S.
Continuation on the intermediate level of the basic language skills; pronunciation, conversation, reading, and composition with emphasis on aural/oral development. (PR for 203: FRN 102 or two units of high school French or departmental examination)

204 Intermediate French. 3 hrs. I, II, S.
Development of practical conversational skills, reading for comprehension, and directed composition. (PR: FRN 203 or three units of high school French or departmental examination)

240 French Society and Life. 3 hrs. I or II.
Selected topics relating to culture and life in the French-speaking countries. Lectures, readings, and discussions in English.

263R Intermediate French Reading Approach. 3 hrs. I.
Emphasis on rapid development of reading skills in magazines, newspapers, and journals accompanied by review of verb systems and advanced grammatical principles. Not open to majors. (PR for 263R: FRN 162R)

264R Intermediate French Reading Approach. 3 hrs. II.
Emphasis on reading for comprehension in short stories, periodicals, and technical journals according to student interest. Not open to majors. (PR for 264R: FRN 263R)

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
(PR: FRN 204 and permission)

310-311 Advanced Conversation. 3; 3 hrs.
Pronunciation, phonetics, oral practice. Emphasis is on oral skills with vocabulary building and refinement of pronunciation. (PR for 310-311: FRN 204 or four units of high school French)

312 Foreign Language Teaching Techniques. 3 hrs.
Introduction to the communicative approach to language teaching. Presentation and practice in the creation of lesson plans using in-class technologies and computer-assisted language learning materials. Open to education majors only. (PR: FRN 204)

315-316 Advanced Grammar and Composition. 3; 3 hrs.
Study of idioms, grammatical structure, and syntax with emphasis on free composition, use of language laboratory, and formal study of the art of translation from English to French. (PR for 315-316: FRN 204 or four units of high school French)

317-318 Survey of French Literature. 3; 3 hrs.
A study of important literary movements, representative authors and their works from the Middle Ages to present. (PR: FRN 204)

401 Seventeenth Century French Theater. 3 hrs.
Study of representative plays by the classical dramatists Corneille, Moliere, and Racine. This course is conducted in French. (PR: FRN 204)

402 Eighteenth Century French Literature. 3 hrs.
Study of representative works by the philosophers, Montesquieu, Rousseau, Voltaire, and Diderot. The course is conducted in French. (PR: FRN 204)

403 Nineteenth Century French Novel. 3 hrs.
A study of major novels chosen to illustrate the romantic, realistic, and naturalistic literary movements. This course is conducted in French. (PR: FRN 204)

404 Twentieth Century French Novel. 3 hrs.
A study of representative 20th century French novels. The course is taught in French. (PR: FRN 204)

405-406 French Civilization and Culture. 3; 3 hrs.
French culture from prehistoric to modern times with emphasis on contemporary life and French institutions. This course is conducted in French. (PR for FRN 405 or 406: FRN 204)

480-483 Special Topics. 1-4; 1-4; 1-4 hrs. I, II.
A course for advanced students sufficiently prepared to do constructive work in phases of the language or literature not covered in regularly offered courses. (PR: FRN 204 or permission)

485-488 Independent Study. 1-4; 1-4; 1-4 hrs.
(PR: FRN 204 and permission)

495H-496H Readings for Honors in French. 2-4; 2-4 hrs. I, II.
Open only to French majors of outstanding ability. See Honors Courses.

GEOGRAPHY (GEO)

100 Cultural Geography. 3 hrs. I, II.
A survey of major countries of the world in a regional context with emphasis on cultural elements that are significant to man.

101 Physical Geography. 4 hrs. I, II.
Systematic survey of earth-sun relationships, land-surface form, climate, soils, water, natural vegetation, and other natural content as a background for human geography. 3 lec-2 lab.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>203</td>
<td>Economic Geography</td>
<td>3</td>
<td>A Systematic examination of world economic geography with a focus on population, agriculture, transportation, land use, urbanization, industry, energy, and the environment.</td>
</tr>
<tr>
<td>206</td>
<td>Geography of West Virginia</td>
<td>3</td>
<td>Transportation, population, mining, industry, and agriculture as related to climate, soils, land forms, and other natural environmental items.</td>
</tr>
<tr>
<td>280-283</td>
<td>Special Topics</td>
<td>1-4</td>
<td>Relationship between man's activities and natural environment studied by countries, with attention given to inter-relation of countries.</td>
</tr>
<tr>
<td>302</td>
<td>Geography of Europe</td>
<td>3</td>
<td>Relationship between man's activities and natural environment studied by countries, with attention given to inter-relation of countries.</td>
</tr>
<tr>
<td>305</td>
<td>Geography of North America</td>
<td>3</td>
<td>Natural regional divisions emphasizing major economic activities and environmental factors with chief emphasis given to the United States.</td>
</tr>
<tr>
<td>309</td>
<td>Geography of South America</td>
<td>3</td>
<td>A study of settlement, transportation, manufacturing, agriculture, geopolitics, and natural resources of South American countries.</td>
</tr>
<tr>
<td>314</td>
<td>Geography of Middle East</td>
<td>3</td>
<td>A geographical study of agriculture, transportation, manufacturing, settlement, geopolitics, and natural resources of the Middle Eastern countries.</td>
</tr>
<tr>
<td>315</td>
<td>Geography of Africa</td>
<td>3</td>
<td>Low latitude and lower middle latitude regions given relationship approach with national and sectional problems stressed.</td>
</tr>
<tr>
<td>317</td>
<td>World Geography Problems</td>
<td>3</td>
<td>Agriculture, industry, mining and transportation studied on global basis. Physical geography introduced and regional climatic approach clarified.</td>
</tr>
<tr>
<td>320</td>
<td>Environmental Geography</td>
<td>3</td>
<td>A geographical survey of environmental changes caused by human activities. Focus is on resource availability and use; pollution of air, water, and biosphere; energy problems, and interaction of humans with plant and animal communities.</td>
</tr>
<tr>
<td>401</td>
<td>Historical Geography of the United States</td>
<td>3</td>
<td>Study of coastal settlements, the population spread through Appalachia and the Mississippi Basin and the development of intermountain and Pacific Coast centers.</td>
</tr>
<tr>
<td>402</td>
<td>Geography of Appalachia</td>
<td>3</td>
<td>A study of settlement, transportation, manufacturing, agriculture and resource potential.</td>
</tr>
<tr>
<td>403</td>
<td>Geography of Asia</td>
<td>3</td>
<td>Special attention given activities and environment in representative continental countries and nearby islands.</td>
</tr>
<tr>
<td>405</td>
<td>Political Geography</td>
<td>3</td>
<td>A systematic and regional survey of world political problems and international relations stressing studies of the United States, Europe, and the Soviet Union.</td>
</tr>
<tr>
<td>408</td>
<td>Geography of Mexico and Central America</td>
<td>3</td>
<td>A geographical study of agriculture, transportation, settlement, geopolitics, and natural resources.</td>
</tr>
<tr>
<td>410</td>
<td>Urban Geography</td>
<td>3</td>
<td>Study of the morphology, function, and development of cities and the urban fringe. An emphasis is place on social and environmental costs of urbanization, as well as urban and rural linkages.</td>
</tr>
<tr>
<td>411</td>
<td>Medical Geography</td>
<td>3</td>
<td>An introduction to medical geography and its applications, including epidemiology, biometeorology, disease diffusion, healthcare delivery, folk medicine, regional health variations, agromedicine, and rural health issues in Appalachia.</td>
</tr>
<tr>
<td>412</td>
<td>Geography of Russia and CIS</td>
<td>3</td>
<td>Geographical appraisal of cultural, political, and economic aspects of Russia and the Commonwealth of Independent States.</td>
</tr>
<tr>
<td>414</td>
<td>Methods and Techniques of Regional Planning</td>
<td>3</td>
<td>Introductory planning with emphasis on methods, techniques, tools and principles necessary to accomplish objective regional planning.</td>
</tr>
<tr>
<td>415</td>
<td>Regional Planning and Development</td>
<td>3</td>
<td>The philosophy, theories, and principles involved in planning of urban and rural areas. (PR: GEO 414 or permission of instructor)</td>
</tr>
<tr>
<td>416</td>
<td>Environmental Planning</td>
<td>3</td>
<td>An examination of the role the natural environment plays in urban and rural land use planning; with an emphasis on consequences of land use change, and applications of planning techniques.</td>
</tr>
</tbody>
</table>
Coal Industries Studies: Past & Present. 3 hrs.
An interdisciplinary study for all facets of the coal industry within a historic perspective. Emphasis is placed upon coal industry of West Virginia and the tri-state region.

Geography for Teachers. 3 hrs.
A study of elements of geography most essential for effective teaching of geographic content in professional education and the social studies.

Geography of Gender. 3 hrs.
Introduces gender as an essential element in understanding not only the geographic literature, but also the spatial dimensions and implications of gender and the cultural landscape.

Geographic Field Research. 3 hrs.
This class will develop individual research projects based on data collected in the field; producing an original piece of geographic research. This course fulfills the Capstone requirement for undergraduate geography majors.

Concepts and Methods in Geography. 3 hrs.
Survey of the history, literature, prominent individuals, and major paradigms in geography. Review of the major concepts in geography and an introduction to various methods of geographic inquiry.

Climatology. 3 hrs.
A study of elements of weather and climate, methods of climatic classification, and distribution and characteristics of world climate regions.

Cartography. 3 hrs.
Understanding principles and developing skills in the use of cartographic drafting equipment and in map making.

Cartography and Geographic Information Systems. 3 hrs.
Introduction to computer use in mapping and geographic information systems.

Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
Independent Study. 1-4; 1-4; 1-4 hrs.
Reading for Honors in Geography. 4; 4 hrs. I, II.

GEOLOGY (GLY)

General Geology. 3 hrs. I, II, S.
A beginning level geology course which surveys elements of earth materials, processes, structures and history. Designed primarily for the non-science major. Prospective majors must maintain at least a B average to use Geology 110 as a prerequisite for other geology courses. 3 lec. (CR: GLY 210L)

Introductory Oceanography. 3 hrs. I, S.
Origin of the seas and ocean basins. Processes of marine sedimentation and seawater chemistry. Dynamics of air/sea interaction, circulation, waves and tides. Description of coastal and other marine environments. 3 lec. (CR: GLY 150L)

Introductory Oceanography Laboratory. 1 hr.
A complementary laboratory to Introductory Oceanography, GLY 150. A series of exercises relating to bathymetry, acoustic profiling, marine charts, properties of seawater, sea floor sediments, currents, waves and tides. (PR or CR: GLY 150)

Energy and Mineral Resources of the Earth. 3 hrs.
A survey of mineral and energy resources (metals, industrial rocks and minerals, fossil and nuclear fuels, water, and soils), their geologic context, and environmental impact of their extraction and consumption.

Physical Geology. 3 hrs. I, II.
An elementary but comprehensive physical geology course that deals with the earth's origin, composition, structures, tectonics and processes. Intended primarily for, but not limited to, the science major. 3 lec. (CR: GLY 210L)

Historical Geology. 3 hrs. II.
Chronological history and development of the earth, sequence of the geologic ages and rock formations, development and evolution of life as revealed by fossils. (PR: GLY 110 or 200. CR: GLY 211L)

Earth Materials Laboratory. 1 hr. I, II, S.
An introduction to laboratory and materials as applied to the identification, classification, recovery and uses of earth resources. 2 lab. (CR: GLY 110 or 200)

Historical Geology Laboratory. 1 hr. II.
Reconstruction of events in earth history based on physical characteristics and arrangement of rock layers and their fossil content. 2 hr. lab. (PR: 210L; CR: GLY 201)

Geological Field Mapping. 2 hrs. I.
An introduction to geologic mapping and map interpretation, preparations of topographic and geologic cross sections. 2 lab. (Field work). (PR: GLY 110, 200 or 201. Required of majors)
313 Structural Geology. 4 hrs. I, Alternate years (even numbers)  
Analysis, classification and origin of depositional and deformatonal structures common to all classes of rocks, their structural history, relationships, and stresses which caused them. 3 lec.-2 lab. (PR: GLY 200).

314 Mineralogy. 4 hrs. I, Alternate years (odd numbers)  
Identification, classification, origin, occurrences, and economic uses of minerals and their crystallographic forms. 3 lec-2 lab. (PR: GLY 110 or 200, CHM 211, 212 and appropriate labs)

325 Stratigraphy and Sedimentation. 4 hrs. I, Alternate years (even numbers)  
Formation, organization, sequence, and correlation of sedimentary rocks; study of the origin, transportation and deposition of rock-forming sediments. 3 lec-2 lab. (PR: GLY 201)

410 Big Bend Field Excursion. 2 hrs.  
Field trip to Big Bend National Park, Texas to study the structure, stratigraphy, igneous geology, metamorphic geology, paleontology and natural history of this national park. (PR: 12 hours of geology)

418 Invertebrate Paleontology. 4 hrs. I, Alternate years (even numbers).  
Taxonomy, morphology, and paleoecology of body and trace fossils representing the major invertebrate phyla; analysis and interpretation of faunal assemblages; evolution and extinction of species. (PR: GLY 201)

421 Petrology. 4 hrs. I, Alternate years (even numbers)  
Identification and classification of igneous, and metamorphic rocks, their origin and occurrence; their geologic and economic importance. 3 lec-2 lab. (PR: GLY 200, GLY 314 or consent)

422 Economic Geology. 4 hrs. II, Alternate years (even numbers)  
Origin, distribution and economics of the metallic and non-metallic ore deposits. 3 lec-2 lab. (PR: GLY 201, 314, or consent)

423 Sedimentary Petrography. 4 hrs. I, Alternate years (odd numbers)  
Megascopic and microscopic identification and a depositional and post depositional interpretation of the sedimentary rocks. 3 lec-2 lab. (PR: GLY 201 and 314)

425 Geochemistry. 4 hrs. II, Alternate years (even numbers)  
Introduction to the principles of geochemistry. The application of chemistry to the study of the Earth and to geologic problems. Laboratory work includes analysis of rocks, soils, and waters. (PR: GLY 110, 200 or 211; CHM 211, 212 and appropriate labs)

426 Geophysics. 4 hrs. II, Alternate years (even numbers)  
and dynamics of the earth. 3 lec.-2 lab. (PR: GLY 200, PHY 201, MTH 229)

427 Fossil Fuels. 4 hrs. II, Alternate years (odd numbers)  
Origin and distribution of coal, oil and gas, and methods of exploration and reserve evaluation. 3 lec.-2 lab. (PR: GLY 313, 325 or permission)

430 Computer Methods in Geology. 4 hrs. II, Alternate years (odd numbers)  
Computers are used for compilation, data analysis and modeling from a wide range of geological problems. 3 lec.-2 lab. (PR: 12 hrs. GLY, a variety of software is used)

451 Principles of Geomorphology. 3 hrs. I, Alternate years (odd numbers) and S.  
Principles of identification and analysis of the world’s surficial features in terms of stratigraphy, structure, processes, tectonics and time. 3 lec. (PR: GLY 110, 200, 210L or consent; CR: GLY 451L for m majors, elective for non-majors)

451L Principles of Geomorphology Laboratory. 1 hr. I, Alternate years (odd numbers) and S.  
For Geology majors, co requisite with Geology 451. For non-majors, elective. (PR: or CR: GLY 451)

455 Hydrogeology. 3 hrs. I, Alternate years (odd numbers)  
The properties of water, the hydrologic cycle with emphasis on surface and groundwater processes, the uses, needs and problems associated with water resources. 3 lec. (PR: GLY 110 or 200; CR: GLY 455L for majors, elective for non-majors)

455L Hydrogeology Laboratory. 1 hr. I, Alternate years (odd numbers)  
A two-hour laboratory of practical hydrogeologic problem solving. For non-majors, elective. (CR: Geology 455 for majors)

456 Environmental Geology. 3 hrs. II, Alternate years (even numbers)  
Through lecture and demonstration, the interactions of man and the earth, dealing with natural resources, natural hazards, cultural and urban geology and future planning. (PR: GLY 200)

456L Environmental Geology Laboratory. 1 hr.  
A laboratory to complement GLY 456, Environmental Geology, dealing with current solutions to environmental problems through real life exercises. (PR: GLY 200, 210L, 451, 451L)

457 Engineering Geology. 3 hrs. I., Alternate years (even numbers)  
A course for geology majors employing geological principles and methods to solve geotechnical engineering problems. (PR: GLY 200, 210L, 451 and 451L, or by permission of the instructor)

485-488 Independent Study. 1-4 hrs.
Capstone Experience. 2-4 hrs.
An independent study involving a research project or internship; must be approved by geology faculty.

GERMAN (GER)

101 Elementary German I. 3 hrs.
Pronunciation, conversation, reading, and composition with an emphasis on aural/oral development.

102 Elementary German II. 3 hrs.
Pronunciation, conversation, reading, and composition with an emphasis on aural/oral development. (PR: GER 101 or 1 unit of high school German or department exam.)

203 Intermediate German. II. 3 hrs. I, II, S.
Continuation on the intermediate level of the basic language skills; pronunciation, conversation, reading, and composition with emphasis on aural/oral development. (PR for 203: GER 102 or two units of high school German or departmental examination)

204 Intermediate German. 3 hrs. I, II.
Completion on the intermediate level of the basic language skills; pronunciation, conversation, reading, and composition with emphasis on aural/oral development. (PR for 204: GER 203 or three units of high school German or departmental examination)

240 German Society and Life. 3 hrs. I or II.
Study of selected topics relating to culture and life in the German speaking countries. Lectures, readings, and discussions in English. No prerequisite.

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
(PR: GER 204)

301 Drama of the 19th and 20th Centuries. 3 hrs.
A survey of literary trends and main authors. Reading and comprehension of selected dramas of the period. (PR: GER 234)

302 Prose of the 19th and 20th Centuries. 3 hrs.
A survey of literary trends and main authors. Reading and comprehension of selected stories and discussion of novels. (PR: GER 204)

312 Foreign Language Teaching Techniques. 3 hrs. II.
Introduction to the communicative approach to language teaching. Presentation and practice in the creation of lesson plans using in-class technologies and computer assisted language learning materials. For German education majors only. (PR: GER 204)

315-316 Advanced Grammar and Composition. 3; 3 hrs.
Study of idioms, grammatical structure, and syntax with emphasis on free composition, use of language laboratory, and formal study of the art of translation from English to German. (PR for 315: GER 204. PR for 316: GER 315 or consent of instructor)

405-406 German Civilization and Culture. 3; 3 hrs. I, II.
German culture from prehistoric times to present-day divided Germany. Lectures, reports, discussions, representative readings in English and German. Capstone experience. (PR: GER 204).

417-418 Survey of German Literature. 3; 3 hrs.
A study of important literary movements, representative authors and their works from the Middle Ages to the present. (PR for 417 or 418: GER 204)

419-420 German Literature of the Classical Age. 3; 3 hrs.
German literature of the classical age, stressing Goethe, Schiller, and romanticism. (PR: for 419: GER 204 and at least one literature course and consent of instructor)

480-483 Special Topics. 1-4; 1-4; 1-4 hrs. I, II.
(PR for GER 480-483: GER 204 and permission of instructor.)

485-488 Independent Study. 1-4; 1-4; 1-4 hrs.
(PR: GER 234 and permission of instructor.)

495H-496H Independent Study. 2-4; 2-4 hrs. I, II.
Open only to German majors with outstanding ability. See Honors Courses.

GREEK (GRK)

201-202 Ancient Greek First Year. 3; 3 hrs. I, II.
(PR for GRK 202: GRK 201)

301-302 Ancient Intermediate Greek. 3; 3 hrs. I, II.
Varied readings including selections from Homer's Iliad, Dialogues of Plato and the New Testament. (PR: GRK 202 for 301; GRK 301 for 302).
HEALTH EDUCATION (HE)

220 Personal Health I. 3 hrs. I.
A survey course that focuses upon wellness promotion and prevention of various health problems.

221 Personal Health II. 3 hrs. I, II.
An examination of the health content areas of mental/emotional health, substance use/abuse, and human sexuality/family life education.

222 First Aid. 3 hrs. I, II, S.
First aid, safety and survival education for home and community situations.

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.

321 The School Health Program. 3 hrs. I, II, S.
A consideration of the comprehensive school health program, including a special focus upon health services and health instruction. (PR: EDF 218)

325 School and Community Health. 3 hrs. II.
An examination of some of the specific relationships between school and community health programs, including the roles and interaction of public, professional, private and voluntary health agencies with the school. (PR: HE 220, 221, 321)

426 Curriculum in Health Education. 3 hrs. I.
A study of principles, objectives, and procedures in curriculum development for middle and secondary school programs including historical and philosophical perspectives, and comparing current curricula. (PR: HE 220, 221, 321, 325)

430 Health Issues in Physical Education and Athletics. 3 hrs.
Survey of current health issues such as sanitation, contagious diseases, substance abuse, ergogenic aids, and diet/nutrition in PE and athletics. (PR: HE 221, PE 201, PE 215, PE 435)

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
Health education majors only, with permission of department chairman.

HISTORY (HST)

101 The Great Civilizations to 1300. 3 hrs. I. II.
Comparative study of the origin and course of major civilizations focusing on the Middle East, India, China, and the West.

102 The World and the Rise of the West, 1300 to the Mid-19th Century. 3 hrs. I, II.
An interdisciplinary analysis of the foundations of Western development.

103 The World Since 1850. 3 hrs. I, II.
Major world developments and trends from the middle of the 19th century to the present and their implications for the future.

103H Twentieth Century World - Honors. 3 hrs.
Survey for superior students of world developments and trends from the 19th century to the present and their implications for the future. (PR: 3.0 GPA perm.)

125 American Business History. 3 hrs.
A survey of the development of the major financial, commercial, manufacturing, and transportation enterprises which transformed the United States from an agricultural to a leading industrial nation.

200 Sophomore History Methods Workshop. 3 hrs.
An introduction to the most fundamental methods of the discipline. Students will learn to use library resources, practice document interpretation skills, and identify and evaluate historical arguments.

202 History of Medicine. 3 hrs.
A survey of the major developments in the theory and practice of medicine from the Renaissance to the 20th century.

205 English History to 1642. 3 hrs. I.

206 English History Since 1642. 3 hrs. II.
A continuation of English History 205. Special attention is given to the development of ministerial government and to the growth and decline of the British Empire.

208 History of Third World. 3 hrs.
A comparative survey of selected Third World countries focusing on imperialism, colonialism and present developmental efforts.
219 Ancient History. 3 hrs.
A survey of the ancient Near East, Greece, and Rome with emphasis on Greek and Roman civilization from Mycenaean times through the Roman Empire of the 5th Century.

221 War in Modern Times. 3 hrs.
Emphasis upon trends in military thought and practices in western civilization. Special attention to the two world wars of the Twentieth Century.

223 The Rise and Fall of Nazi Germany. 3 hrs.
A study of the origins, course, and collapse of the Third Reich. Some attention will be given to pre-Nazi period.

230 American History to 1877. 3 hrs. I, II, S.
A general survey from the discovery in 1492 through the period of Reconstruction.

230H American History to 1877 - Honors. 3 hrs.
A survey of American history to 1877 for the superior student. (PR: 3.0 GPA)

231 American History Since 1877. 3 hrs. I, II, S.
A general survey since Reconstruction.

231H American History Since 1877 - Honors. 3 hrs.
A general survey since Reconstruction for the superior student. (PR: 3.0 GPA)

250 Women in United States History. 3 hrs.
A study of the public and private contributions of women in the shaping of the United States from the Colonial period to the present.

260 Rise of Islam, 570-1750. 3 hrs.
A study of the Middle Eastern region from pre-Islamic Arabia to the pinnacle of Ottoman imperial control. Emphasis is placed on cultural, social, and political developments.

261 The Modern Middle East. 3 hrs.
A survey of the modern Middle East with emphasis on the historical background of current controversial issues confronting the region.

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
Selected topics not covered in regular course offerings.

301 Latin America: Discovery to Independence. 3 hrs. Emphasis is on conditions which influenced the development of Latin America and eventually led to the independence movement.

302 Latin America: Independence to the Present. 3 hrs.
Emphasis is on the political, economic and social institutions of Argentina, Brazil, Chile and Mexico.

303 The American Military Experience. 3 hrs. I.
Examines the American military tradition from the colonial period to the present with particular emphasis on the Twentieth Century.

304 Spanish History Since 1475. 3 hrs.
A survey of Spain's historical development emphasizing her rise and decline as a world power, the impact of persistent internal conflict, the Franco dictatorship and the transition to democracy.

312 African-American History, 1619 to Present. 3 hrs.
A survey of African-American History from African and West Indian origins to the present.

317 History of U.S. Immigration. 3 hrs.
A study of America's unprecedented "melting-pot" heritage via the personal and collective experiences of immigrant groups and how they fared socially, economically and politically in the 19th and 20th centuries.

323 Religion in America. 3 hrs.
The rise and development of religion and of religious thinking in America. (Same as Religious Studies 323)

333 American Colonial History. 3 hrs.
A study of the historical development of the English colonies in America.

342 American Legal History. 3 hrs.
Historical development of American law in areas ranging from slavery and racial discrimination to civil liberties and crime and punishment.

345 History of Mentalites. 3 hrs.
This course provides an introduction to the literature and methods of the history of mentalites which is the study of the world views and activities of ordinary, largely inarticulate peoples.

350 American Labor History. 3 hrs.
The history of the American labor movement.

377 China in the 20th Century. 3 hrs.
Traces China's history from the turbulent close of the dynastic era at the end of the 19th century through the present Communist period.

378 The Emergence of Modern Asia. 3 hrs.
A selective look at Modern Asia, focusing on Japan, China, Korea, Taiwan, Vietnam and Indonesia and American interaction with the Asian nations.
400 Senior Seminar. 3 hrs. II.  
A capstone course for History majors. Survey of literature and practical experience in methods and sources of history through bibliographical study and research papers. Capstone experience. (PR: HST 200, Senior standing or by permission.)

402 American Intellectual History 1865 to Present. 3 hrs.  
A critical examination of intellectual, creative, and literary movements in the modern era.

403 American Urban History. 3 hrs.  
Study of the political, economic, social, and intellectual impact of the city upon American history, and the impact of history upon the growth of American urbanization.

404 American Diplomacy, 1789-1900. 3 hrs.  
American foreign policy from colonial times to 1900 emphasizing the gradual development of the United States and its achievement of membership in the family of nations.

405 American Diplomacy, 1900 To Present. 3 hrs.  
American foreign relations in the 20th century. The gradual retreat from isolation in the period between World War I and World War II and modern American involvement in international commitments are stressed.

406 Tudor and Stuart England, 1450-1688. 3 hrs.  
A history of England under the Tudors and Stuarts, focusing primarily on demographic, social, cultural, and political developments.

409 American Revolution. 3 hrs.  
A varied view of the American Revolution and its impact on the American people.

410 Conquering the Continent: America's Frontier Experience. 3 hrs.  
A survey of the American frontier experience with particular emphasis on the fate of the American Indian, the environment and the character of the American-created culture.

411 American Social and Cultural History 1607 to Present. 3 hrs.  
A study of the changes and continuities in American Social Cultural History from 1607 to present.

413 History of the Old South, 1492-1860. 3 hrs.  
A study of the political, economic, social, and cultural conditions in the South that led to the development of the South as a distinct section in the United States.

414 Civil War and Reconstruction. 3 hrs.  
A discussion of the economic, political, social, and cultural differences leading to the Civil War, the war itself, and an analysis of the political and economic importance of Reconstruction.

415 History of the New South, 1877 to the Present. 3 hrs.  
A study of the political, economic, social, and cultural changes in the South after Reconstruction, which explains conditions in the contemporary South.

416 American Social Movements. 3 hrs.  
A study of the social movements which have influenced the course of American History. Includes abolition, women's rights, Progressivism, civil rights.

421 The Era of the Renaissance and Reformation. 3 hrs.  
The impact of the Renaissance upon esthetic, economic and political developments especially in the 15th and 16th centuries. The decline of Catholicism and the growth of the Protestant movement, and the influence of the two movements upon each other are stressed.

422 The French Revolution and the Napoleonic Era. 3 hrs.  
Society and government in Europe before the French Revolution and the influence of the enlightenment; ideas and changes introduced by the revolution and Napoleon and their effect on the institutions and economy of Europe.

423 US Latin-American Relations. 3 hrs.  
An appraisal of political, economic, and cultural relations of the U.S. and Latin America in a historical context with emphasis on the period since 1945.

424 U.S. Science and Technology. 3 hrs.  
A study of the development and impact of science and technology in the U.S. with special emphasis on the modern period.

425 European History, 1814-1914. 3 hrs.  
A century of European political, economic, and social history and its relationship to and influence upon the history of other world areas is noted. The impact of imperialistic rivalry is emphasized.

426 European History, 1914 to Present. 3 hrs.  
The impact of World War I upon Europe, the era between two world wars, the search for world peace, and World War II and its aftermath are major topics of consideration.

428 Intellectual and Cultural History of Modern Europe. 3 hrs.  
A survey of the main events in European thought and culture in the 19th and 20th centuries.

429 Russia to 1917. 3 hrs.  
A survey of Russian history to 1917 which examines Russia before the Russians, Kievan Russia, Appanage Russia, Muscovite Russia, and Imperial Russia.
430 Soviet Russia and Beyond. 3 hrs.  
The rise and fall of the Soviet Union, with emphasis on political and economic changes and Soviet foreign policy, including an examination of the aftermath of the Soviet Union's collapse.

431 America in the Gilded Age. 3 hrs.  
A study of America's transformation from a rural, agrarian nation into an urban, industrial world power; the final destruction of the American Indian; the settlement of the West; and the farmers' revolt.

432 America Matures 1900-1945. 3 hrs.  
An examination of the social, political, and economic trends in the United States in the first half of the 20th century, emphasizing social upheavals, conflicts, and reform movements at home and abroad.

433 In Our Time - America Since 1945. 3 hrs.  
A study of America since World War II, focusing mainly on domestic politics, foreign affairs, the civil rights movement, the rise of minorities, and the fragmentation of American society.

434 The American Experience in Vietnam. 3 hrs.  
A study of the origin and escalation of American involvement in Vietnam, the domestic impact of the war within the United States and the collapse of the South Vietnamese government.

435 Modern Japan. 3 hrs.  
Begins with an overview of nineteenth century Japan and stresses the twentieth century rise of Japan to the position of world power.

440 West Virginia History. 3 hrs.  
An interdisciplinary study of the state, its people and its institutions within the national context. (PR: HST 230 and 231)

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.  
(PR: Consent of department chair).

485-488 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.  
(PR: Consent of department chair).

495H-496H Readings for Honors in History. 4; 4 hrs. I, II  
Open to history majors of outstanding ability. Study may deal with any field of history. Wide reading and comprehensive understanding of the era are required. (PR: Consent of department chair) See Honors Courses.

INSTRUCTIONAL TECHNOLOGY AND LIBRARY SCIENCE (ITL)

115 Introduction to Library Skills. 1 hr. I, II  
Prepares students to use the University Library, to become familiar with basic reference sources, and to utilize bibliographic tools and data bases in search strategies. Not open to library science majors.

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.  
Critical examination and skill development using commercial, noncommercial, and computer-generated media. Emphasis is placed on its application to teaching and learning.

365 Orientation to Instructional Technology. 1 hr. I, II, S.  
Utilization of basic audiovisual equipment and production of simple graphic aids.

370 Practicum (Field Work). 1-4 hrs.  
Practical experience in libraries, audiovisual centers, media centers, or related areas adapted to the student's background, experiences, and future occupational and professional goals.

401 History of Libraries and Informational Retrieval Systems. 3 hrs.  
Study of the development of libraries and information-storage technology, from early times to the present, with emphasis on the impact of computer-based systems.

415 Reference & Bibliography. 3 hrs.  

420 Cataloging. 3 hrs.  
Fundamentals of cataloging and classification, applying AACR2, the Dewey Decimal system, and related aids to the organization of library materials. Implications of new technology for technical services will be addressed.

425 Library Organization and Administration. 3 hrs.  
Principles of administration for elementary and secondary school library-media centers and public libraries, including personnel, facilities, budgets, program planning and evaluation, publicity and public relations, audiovisual equipment and materials, computer hardware and software, and methods and materials for teaching library skills.

445 Techniques for Storytelling. 3 hrs.  
Techniques for storytelling intended primarily for public librarians and public school librarians.
450 Library Practice (Field Work). 4-6 hrs. (C/NC)
Practical experience in the application of techniques of library service, adapted as far as possible to
the student's needs. (PR: ITL 415, 420, and 425. CR: CI 450, except for students in a Comprehensive
Subject Specialization or the Elementary Education program) NOTE: Students must file an applica-
tion for permission to enroll in Library Practice. Applicants follow the same procedure as prescribed
for Student Teaching.

465 Utilization of Instructional Technology. 3 hrs.
Utilization of instructional media materials, equipment and techniques.

466 Production of Instructional Materials. 3 hrs.
Basic techniques in making slides, photographs, dry and wet mountings, transparencies, posters and
similar graphic instructional materials.

467 Basic Media Skills Development for Instructional Design. 3 hrs.
Basic techniques in producing and using a variety of audiovisual aids, i.e., photography, scripting,
developing logos, audio-recording, and layout design of manuals. This course also prepares one to
produce a slide-tape presentation.

468 Computer Graphics in Instructional Technology. 3 hrs.
A basic course designed to assist the student in becoming familiar with a variety of software graphics
packages.

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.

485-488 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.
(PR: Permission)

491-494 Workshop in Instructional Technology. 1-4; 1-4; 1-4; 1-4 hrs.
495H-496H Readings for Honors in Instructional Technology. 1-3; 1-3 hrs.

INTEGRATED SCIENCE AND TECHNOLOGY (IST)

101 Fundamentals of Communication. 4 hrs.
Introduction to the nature and importance of written and oral communication in the scientific and
technical arenas. Emphasis upon improving information collection, basic technical writing, oral
presentations, and group communication skills. (CR: IST 120)

111 Living Systems. 4 hrs.
Issues of current importance related to growth in human population and the depletion of biological
resources, and the remedies that science and technology may provide. Related data analysis and
prediction.

112 Chemistry in the Environment. 4 hrs.
Introduction to the basic concepts of chemical science and atmospheric, organic, and nuclear chemis-
try. Energy relationships and chemistry of modern materials will also be presented. Related labora-
tory experiments.

120 Connections I. 2 hrs.
An introduction to the connections between science, technology, and the ethical, legal, and political
arenas that influence the role, nature, and perceptions of science and technology in contemporary
society. (CR: IST 101)

130 Analytical Methods I: Statistics. 4 hrs.
Discrete mathematics, calculus, and statistics for IST majors. Elementary algebraic and transcenden-
tal functions, derivatives, integrals, and series. Modeling, guess, refinement, and technological tools.
Applications to the physical sciences.

131 Analytical Methods II: Differential Calculus. 4 hrs.
Continuation of IST 130. (PR: IST 130)

160 Instrumentation I. 3 hrs.
Introduces the students to modern data gathering methods and programming for the Internet. The
course covers programming, graphic programming interface packages, and problem solving methods.

163 Programming Practicum with C++. 3 hrs.
Concepts of software development and maintenance using C++, including syntax of the language,
loops, functions, pointers, decision structures, and file processing. Proper program design using
object-oriented programming techniques are emphasized.

201 Advanced Communications. 4 hrs.
Advanced work in written and oral communications. Emphasis upon critical use of argument,
advanced technical writing, multimedia presentations, group discussions, advanced research meth-
ods, and adapting messages to various audiences. (PR: IS 101, CR: IST 220)

211 Modern Production. 3 hrs.
This course introduces the student to manufacturing terminology, automation, and impact of related
technologies. Discrete, service, and continuous process manufacturing will be addressed. Chemistry
and statistics concepts pertinent to manufacturing. (PR: IST 112)

352 Courses of Instruction Marshall University
212 Energy. 3 hrs.
The course introduces the student to the properties and the interfaces of biological and physical systems with emphasis upon energy concepts, production, and distribution in both systems. (PR: IST 211)

220 Connections II. 2 hrs.
Further examination of the nature and impact of science and technology in our contemporary world. Case studies analysis to highlight the controversies surrounding the role of science and technology in society. (PR: IST 120; CR: IST 201)

230 Analytical Methods III: Integral Calculus Series. 4 hrs.
Concepts of linear algebra, multi-variable calculus, and differential equations with applications to physical science, information technology, business, economics, classical and modern optics, and audio technology. (PR: IST 131)

231 Analytical Methods IV: Advanced Mathematical Topics. 4 hrs.
Continuation of IST 230. (PR: IST 230)

236 Data Structures. 3 hrs.
Covers fundamental topics of information technology including the concepts of object orientation, linear data structures, data representation, data manipulation algorithms and their applications, and project participation. (PR: IST 163, CR: IST 131)

238 Algorithms. 3 hrs.
Covers algorithm-design methods, algorithm performance and analysis, and optimization techniques. Covers algorithm applications used in solving frequently occurring problems, such as pattern matching, data compression, searching, and sorting. (PR: IST 236)

241 Introduction to DNA Cloning. 4 hrs.
Basic Molecular Genetics. Topics include DNA, RNA and Protein Structure and Function, Microbiology, Genetics, Cell Biology, Gene Regulation, Molecular Biology Applications in agriculture, medicine and industry. Hands-on DNA cloning lab. (PR: IST 111, 112, or BSC 120 and CHM 211)

260 Instrumentation II. 3 hrs.
The course introduces students to modern data gathering methods, laboratory instrumentation, and programming. This course is a continuation of IST 160. (PR: IST 160)

263 Web and Java Programming. 3 hrs.
Students will learn techniques for creating advanced documents and programs for the web using HTML, XML, Java, and ASP scripting. Students will also learn how to install and maintain a web server. (PR: IST 160)

264 Topics in Computer Hardware Technologies. 3 hrs.
Analysis and examination of various hardware technology issues that impact computer usage. Subjects may vary from semester to semester as technologies change.

280-283 Special Topics. 1-4 hrs.
A course on some topic not treated in the regular course offerings.

285-286 Independent Study. 1-3 hrs.
Independent Study for selected sophomores or advanced freshmen under supervision of faculty; may be repeated only once.

301 Public Service Experience. 1 hr.
At least 30 contact hours in a public service/volunteer experience with a group, organization, or agency that offers a service to the general public. (Advisor permission required).

320 Nature of Environmental Problems. 3 hrs.
The effects of human activity on ecological, political, and cultural systems are examined. Particular attention is given to present human population growth, industrial activities, and energy availability. (PR: IST 231 and 260)

321 Resolution of Environmental Problems. 3 hrs.
Students examine case studies of current environmental problems and propose methods of remediation. Cultural, political, economic, as well as ecological and physiographic factors are considered.

322 Assessment I: Terrestrial Ecology. 4 hrs.
Use of scientific procedure and current technology to characterize and quantify sensitive elements of terrestrial ecosystems and to assess human impact on those systems. (PR: IST 231 and 260)

323 Assessment II: Aquatic Ecology. 4 hrs.
Use of scientific procedures and current technology to characterize and quantify sensitive elements of aquatic ecosystems and to assess human impact on those systems. (PR: IST 231 and 260)

330 Knowledge Engineering Fundamentals. 3 hrs.
Introduction to fundamental topics of knowledge engineering and the development of Knowledge-Based Systems (KBS). Covers life cycle activities, knowledge acquisition, representation, and the implementation of KBS and building tools. (PR: IST 160)
332  Software Engineering I. 3 hrs.
Introduction to the industrial process of software systems development. The course covers project management and planning; risk management issues, software quality and configuration issues, and processes, methods and development topics. (PR: IST 238 or permission)

333  Software Engineering II. 3 hrs.
A continuation of IST 332. It covers the system development lifecycle: requirements analysis and specifications, design methods, system implementation and integration, testing, and reuse issues. Project participation. (PR: 332)

334  Programming Languages. 3 hrs.
Evaluation of the specification, syntax, semantics, compilation, and software development issues surrounding the development of programming languages. Students are introduced to imperative and functional languages; concurrency, logic, object-oriented approaches. (PR: IST 238)

335  Multimedia Systems and Application Design. 3 hrs.
Introduction to multimedia literacy, concepts, elements, issues, and application development tools. Hands-on experience with different forms of multimedia, including digital video, audio, images and multimedia authoring packages. (PR: IST 263)

336  Computer Architecture and Digital Logic. 3 hrs.
Students will study microprocessor design, computer bus structures, memory organization, I/O device and data path design and optimizations, CPU structures and design, and digital circuits and their design. (PR: IST 230 and 238)

337  Network Operating Systems. 3 hrs.
Covers current operating systems that support networking and distributed processes. Topics include process management, memory management, security issues, network support and management, and hardware management. (PR: IST 238)

338  Cisco 5: Advanced Routing Configuration. 3 hrs.
This is the first of four courses to prepare students for the CCNP. Course covers advanced IP addressing and traffic management, routing protocols, OSPF, EIGRP, route optimization, and BGP integration. (PR: students must possess a CCNA)

339  Cisco 6: Remote-Access Networks. 3 hrs.
The second of four courses to prepare students for the CCNP. Course covers WAN and LAN design, IOS and network fundamentals, security, management, and bridging/switching. (PR: IST 338)

The course deals with DNA and genes, the code of life, which we receive from our parents. It tells how humans recently learned about DNA and have started to manipulate it. (PR: IST 111 or equivalent)

341  It's All in Your Genes: Issues in Human Genetics. 4 hrs.
Gene cloning, genetic testing, gene engineering, DNA fingerprinting. What does human heredity hold from the past, and what does it have in store for the future? (PR: IST 111 or equivalent)

342  Bioscience Research Methods. 2 hrs.
Students will develop proficiency in the laboratory methods used in Biosciences. These skills prepare students for successful internships and advanced courses in biotechnology and environmental sciences. Hands-on and WebCT instruction. (PR: IST 111 or equivalent)

343  Genomic Cloning and Cytogenetics. 4 hrs.
Advanced Molecular Genetics class emphasizing lab techniques. DNA cloning and plasmid purification, Genomic DNA purification. Southern and Northern hybridization, DNA sequencing, Animal Cell Culture and Human Cytogenetics. (PR: IST 241 or BSC 120 and CHM 211 and permission of instructor)

350  Manufacturing Systems. 3 hrs.
Various manufacturing systems used within organizations are introduced. Methods of manufacturing are presented along with various technologies employed. Design for manufacturing, material management, quality considerations, etc. are treated. (PR: IST 211)

362  Network Protocols. 3 hrs.
This course provides students with knowledge of network terminology, structures, topologies, protocols, and interfaces involving Local Area and Wide Area networks. (PR: IST 238)

363  Network Administration. 3 hrs.
Covers topics in network administration in a theoretical and practical way. Includes hardware selection, operating systems, platforms, programming languages, batch control, shared resources, security systems, anti-virus procedures, and specific manufacturers’ methodology. (PR: IST 362)

365  Database Information Management. 3 hrs.
To understand the logical and physical design of data stored and retrieved from a relational database. Exposure to distributed databases, database administration and structured query language will also be done. (PR: IST 230 and IST 238)
355 Database Design and Report Writing. 3 hrs.
Technical database design, data modeling techniques, advanced database query functions, and
database manipulation concepts. The development of conceptual and organizational skills for plan-
ing and creating effective formal written reports. (PR: IST 365)

420 Remote Sensing with GIS Applications. 4 hrs.
A study of the physical systems for collecting remotely sensed data. Statistical/spatial analysis and
modeling using large processing/geographic information/spatial computer software systems with
earth resources applications. (PR: IST 231 and 260)

421 Digital Image Processing and Computer Simulation Modeling. 4 hrs.
A study of image processing/geographic information/spatial analysis systems, concurrent and
parallel image processing 3-D modeling scenarios utilizing geophysical data for computer simul-
atation modeling. (PR: IST 420)

422 Geochemical Systems. 3 hrs.
Examination of the geological and chemical relationship between geologic structure and water
chemistry. Focus on the difference between carbonate and non-carbonate systems and mineral
cycles of nitrogen, phosphorus and sulfur.

423 Applied Environmental Statistics and Database Management. 3 hrs.
Course integrates current methods in database management, statistical analysis, and
hypothesis testing to assess the significance of anthropogenic effects on environmental quality.
(PR: IST 130 or equivalent)

424 Environmental Risk Assessment. 3 hrs.
Environmental risk assessments determine if containment releases pose unacceptable risk to
human health and environment. This course will present a broad-based introduction to human
health risk assessment for environmental contamination. (PR: IST 231 and 260)

425 Impact Assessment Documentation. 3 hrs.
Use of current concepts in conservation biology to examine the impacts of habitat perturbations on
people and species of concern. (PR: IST 231 and 260)

430 Electronic Commerce. 3 hrs.
This course examines electronic commerce with group decision making and collaborative applica-
tions through the Internet. Develop applications that retrieve and store information in distributed
databases. (PR: IST 231 and 260; CR: IST 432)

433 Network Communications. 3 hrs.
To understand the fundamentals of data communication as it relates to protocols, security, and new
technologies. Implement local area network concepts such as designing, maintaining, and managing
a computer network. (PR: IST 231 and 260)

442 Bioethics. 3 hrs.
Discuss ethical issues in scientific research: fraud, informed consent, genetic testing, gene therapy,
cloning, new drugs, vaccines and foods produced via engineered organisms. Includes real case
studies and media analysis. (PR: IST 120, IST 220)

443 Protein Biotechnology. 3 hrs.
Discussion covers basics of protein structure and function, post-translational modification and
transport, simple immunology. Laboratories include protein quantification, enzyme kinetics, protein
purification and dialysis, protein gel electrophoresis and staining.

444 Bioinformatics. 3 hrs.
Bioinformatics computer software is used to draw inferences from DNA and protein databases.
Students will find patterns and meaning in genomic data through computer-aided analysis of DNA,
RNA, and protein. (PR: IST 111 or equivalent)

445 DNA Forensics. 3 hrs.
Hands-on DNA typing of simulated crime scene evidence. Process biological samples, purify DNA,
perform presumptive and confirmatory tests for blood and semen, learn microscopy, PCR genetic
analysis, and practice testimony. (PR: IST 340 or IST 341 or equivalent)

450 Manufacturing Processes. 3 hrs.
A study of the basic processes used in manufacturing parts such as machining, grinding, casting, and
sheet metal fabrication. Methods for producing plastics and composites will also be presented. (PR:
IST 211)

451 Materials Science in Manufacturing. 3 hrs.
A study of materials used in the fabrication of products and their physical properties. Stress, strain,
thermal and electrical properties, etc., will be studied for metals, plastics, ceramics, and composites.
(PR: IST 350)

452 Process Capability, Control, and Monitoring. 3 hrs.
A study of the methodologies used to determine the capabilities of manufacturing operations and
processes and the variety of controls that are used to control and monitor them. (PR: IST 350)
Design for Manufacturability. 3 hrs.
A study of the techniques used to simultaneously enhance both design and manufacturing operations. Included in the techniques are CAD/CAM, quality function deployment, Taguchi methods, and value analysis. (PR: IST 351)

Network Security and Cyber Crime. 3 hrs.
Addresses security issues for TCP/IP-based networks. Access Control and Communications issues are covered as well as Internet security in the areas of cryptography, protocols, applications, encryption, hash functions, digital signatures, etc. (PR: IST 363)

Network Design. 3 hrs.
Provides students with an in-depth study of data communications design principles, standards, protocols, algorithms, architectures, models, throughput and performance. Design principles related to multiple layers and management of networks also covered. (PR: IST 464)

Database Programming. 3 hrs.
This course teaches students technical database programming with relational database systems. Students will work with fourth generation languages to analyze, design and develop, and execute programs in a database environment. (PR: IST 366)

Cisco 7: Multi-Layer Switching. 3 hrs.
Third of four courses to prepare students for the CCNP. Course covers bridging/switching, OSI reference and layered communication, Cisco 10 switch fundamentals, switch components, and routing trunking. (PR: IST 339)

Cisco 8: Network Troubleshooting. 3 hrs.
Fourth course to prepare students for the CCNP. Course covers Cisco IOS for debugging, troubleshooting tools, backups, and studying efficient troubleshooting techniques. (PR: IST 468)

Internship in IST. 1-4 hrs.
A supervised internship in an area of Integrated Science and Technology. (PR: Permission)

INTEGRATED SCIENCES (ISC)

Energy: from photosynthesis to steam engines. 4 hrs.
Relationships between present and historic levels of energy consumption and human population growth are examined. Issues compare energy use and technology of class members to comparable populations in developing countries. (PR: MTH 121 or higher, except MTH 400 and MTH 401)

Biotechnology. 4 hrs.
Biotechnology explores scientific, political, economic, and ethical aspects of recombinant DNA technology and genetically altered organisms. Class projects include DNA manipulation and analysis, forensic studies, and Internet exploration. (PR: MTH 121 or higher, except MTH 400 and MTH 401)

Freshwaters of the World. 4 hrs.
The course discusses the physics, chemistry, geology, and biology of freshwaters, its importance for all living things, and the need for conservation and pollution-prevention of this invaluable resource. (PR: MTH 121 or higher, except MTH 400 and MTH 401)

Doing Science: The Central Paradigms. 4 hrs.
Students will investigate the nature of science by studying several of its central theories and other issues. Students will gather and interpret evidence and research original and secondary sources. (PR: MTH 121 or higher, except MTH 400 and MTH 401)

Global Warming. 4 hrs.
The scientific data and principles behind the greenhouse effect are investigated as related to the issue of global climatic change.

Who-done-it: Introduction to Forensic Science. 4 hrs.
The relationship between scientific process and crime solutions will be examined. Particular attention will be given to use of DNA technology and probability theory in criminal justice system. (PR: MTH 121 or higher, except MTH 400 and MTH 401)

Living in Space.
A space science course that explores NASA-directed research. Students will compare "ground-based" investigations in plant science, physics, geology, human behavior and physiology with the results from space flight experiments. (PR MTH 121 or higher, except MTH 400 and MTH 401)
207 Coal Science. Examine the importance of coal to industrialized nations and the operation of the John Amos power plant. There is an assessment of the impact of mining activities on the environment. (PR: MTH 121 or higher, except MTH 400 and MTH 401)

208 Evolution: Process of Change. 4 hrs. The issue of evolution is investigated. Topics from the Big Bang to the evolution of viruses are considered. Emphasis is on environmental, genetic, and molecular mechanisms governing change. (PR: MTH 121 or higher, except MTH 400 and MTH 401)

JAPANESE (JPN)

101 Elementary Japanese I. 3 hrs. Pronunciation, conversation, reading and composition with emphasis on aural/oral development. This includes katakana, hiragana, and Chinese characters, used in context.

102 Elementary Japanese II. 3 hrs. Pronunciation, conversation, reading and composition with emphasis on aural/oral development. This includes katakana, hiragana and Chinese characters, used in context. (PR: JPN 101)

203 Intermediate Japanese III. 3 hrs. Continuation on the intermediate level of the basic skills: pronunciation, conversation, reading, and composition with emphasis on aural/oral development. More work on katakana, hiragana and Chinese characters, used in context. (PR: JPN 102)

204 Intermediate Japanese IV. 3 hrs. Development of practical conversational skills, reading for comprehension, and directed compositions. (PR: JPN 203)

JOURNALISM AND MASS COMMUNICATIONS (JMC)

100 Fundamentals of Journalistic Writing and Editing. 3 hrs. I, II. Preparatory course designed to develop writing and editing skills specifically as they relate to professional journalistic/mass communications techniques and practices. Required of students scoring less than 77 on school-administered language-skills test. Does not count toward graduation.

101 Media Literacy. 3 hrs. I, II. Examines structures and functions of mass media and provides a critical look at their effects on social concepts such as democracy and diversity. Includes print, electronic journalism, advertising, public relations.

102 Information Gathering and Research. 3 hrs. I, II, S. Information and research techniques used by media professionals, including academic, community and political sources. Course covers interviewing, formal research and computer-assisted information gathering. (PR: JMC 101)

201 News Writing I. 3 hrs. I, II, S. Techniques of cross-media news writing designed to develop basic skills necessary for beginning reporters and public relations professionals through in-class laboratory experience. (PR: Keyboarding proficiency, JMC 101, JMC 102, and passage of JMC Language Skills Exam or JMC 100 with at least a C)

221 Advertising and Continuity Writing. Introduction to advertising and broadcast copy writing. Includes strategy, script formats, persuasion, styles of writing, editing, and industry organization, structures and standards. Many writing assignments. (PR: Computer keyboard proficiency, JMC 101, JMC 102 and passage of JMC Language Skills Test or JMC 100 with a grade of C or better)

231 Introduction to Audio Production. 3 hrs. II. Fundamentals of audio production, including operation of audio equipment, microphone techniques, tape editing and audio production. Laboratory work at WMUL-FM is required. (PR: JMC 101)


241 Graphics of Communication. 3 hrs. I, II, S. Creative and practical aspects of typography, layout and design of printed communication. (PR: Keyboarding proficiency)

245 Fundamentals of Advertising. 3 hrs. II. Organization of mass media advertising departments and their relationships to advertising agencies and media representatives. An examination of the practices and problems of the three areas. (PR: Sophomore standing)
272-273 Practice in Radio. 1 hr. I, II, S.
Staff responsibility on campus broadcast facilities, WMUL-FM. (PR: Written permission before registration and the satisfactory completion of one year of service on WMUL)

280-283 Special Topics. 1-4; 1-4; 1-4 hrs. I, II, S.

301 Advanced News Reporting. 3 hrs. I, II.
Practice in gathering and writing news for campus media. Emphasis is placed on beat assignment reporting, interviewing techniques, and some specialized reporting. A laboratory class in which students write for the university student newspaper, The Parthenon, and its online edition; WMUL-FM, and MU Reports. (PR: JMC 102, 201)

302 Newspaper Editing and Design. 3 hrs. I, II.
Advanced course in copy editing, headline writing, and design for daily, community, and public relations newspapers. Laboratory instruction and experience on the printed and online issues of the university newspaper, The Parthenon. (PR: JMC 241 and 301)

304 In-depth Reporting. 3 hrs. I.
Study and practice of research methods and writing techniques for in-depth and computer-assisted cross-media reporting on topical issues. (PR: JMC 301)

330 Fundamentals of Public Relations. 3 hrs. I, II, S.
Public relations practices and techniques used by business, educational, industrial, governmental, and social organizations.

331 Radio-Television Announcing and Newscasting. 3 hrs. I, II.
Specialized training in the interpretive skills of announcing and newscasting. (PR: JMC 101)

332 Introduction to Video Production. 3 hrs. I, II.
Introduction to the fundamentals of video production, dealing with cameras, microphones, lighting, staging, field production, editing, post production. (PR: JMC 101)

334 Advanced Audio. 3 hrs. I.
Advanced theory and practice in audio production, with equal emphasis on writing and performance techniques for the documentary, public affairs, feature, and/or dramatic program. Laboratory work at WMUL-FM is required. (PR: JMC 231, JMC 331)

350 Television Reporting. 3 hrs. I.
Students report, shoot, edit, write, produce, and anchor MU Report, a student-produced newscast. The class makes use of university broadcast facilities and West Virginia Public Television as available. (PR or CR: JMC 301)

351 Advanced TV Reporting. 3 hrs. II.
Students report, shoot, edit, write, produce, and anchor MU Report, a student-produced newscast, on an advanced level. The class makes use of university broadcast facilities and West Virginia Public Television as available. Capstone experience. (PR: JMC 350)

360 Digital Imaging for JMC. 3 hrs. I, II.
Methods of taking and editing still and video digital images for print, broadcast, and online publication. (PR: JMC 241 or an equivalent graphics course for all students except broadcast journalism and radio-television majors.)

372-373 Practice in Radio or Television. 1 or 2 hrs. I, II, S.
Staff responsibility on campus broadcast facilities WMUL-FM or WPBY-TV. Capstone experience (PR: Written permission before registration)

382 Advertising Strategy and Execution. 3 hrs. I.
Analyzing advertising problems in a case study approach, proposing a strategic solution, and implementing the strategy. Students must write and produce advertisements for a variety of media. (PR: JMC 221; JMC 245 or JMC 341)

383 Advertising Layout and Design. 3 hrs. II.
Principles and practices in layout and design of advertising for all media. (PR: JMC 241; JMC 245 or MKT 341)

385 Advertising Media Planning. 3 hrs. I.
Planning and practice in allocating advertising budgets in the mass media to effectively reach the target audiences at the most reasonable cost. (PR: JMC 245 or MKT 341)

400 Photojournalism II. 3 hrs.
A course in advanced techniques for newspaper and magazine photography, concentrating on creation, design and use of photo essays and picture stories. (PR: JMC 360 and ART 315)

402 Law of Mass Communications. 3 hrs. I, II, S.
A cross-media overview of the legal concepts important to the media professional with special focus on the roles, rights, and responsibilities of those individuals. (PR: Junior standing)

404 History of American Journalism and Mass Communications. 3 hrs. II.
The development of the press in the United States, the contributions of American journalists, the rise of radio and television, and the relation of communications developments to political, economic and social trends in America.

358 Courses of Instruction Marshall University
Advertising Research. 3 hrs. I.  
Lectures, readings, discussions and projects relating to research used in campaign preparation and syndicated media resources. Students may select areas of special interest.

Magazine Editorial Practices. 3 hrs. I.  
Study of the organization and functions of the magazine editorial department, with practice in planning magazine content, laying out pages and establishing production procedures. (PR: JMC 241)

Reporting Public Affairs. 3 hrs. II.  
Advanced instruction in cross-media reporting in local, state, and federal government; politics, finance, and labor, and social and environmental issues, with emphasis on background and interpretation. Course includes field trips and guest speakers. (PR: JMC 301)

Advertising Campaigns. 3 hrs. II.  
Students function as an advertising agency to plan, prepare, and to present local and national advertising campaigns. Problems of the advertiser and the agency are considered. Capstone experience. (PR: JMC 382, 383, 385)

Supervision of School Publications. 3 hrs.  
A comprehensive study of advising and producing school publications, with emphasis on methods for teachers of journalism. (PR: Permission)

Magazine Article Writing. 3 hrs. I.  
Fundamentals of researching and writing the popular, factual magazine article; techniques of selling articles to magazines (PR: Junior standing)

Corporate and Instructional Video. 3 hrs. S.  
Development of the use of video communication and instruction in business, agencies, and education. Production and utilization of video units for specific objectives.

Radio-Television Programming. 3 hrs. II.  
Principles of programming, including audience analysis, production, purchase, and scheduling of various formats. (PR: JMC 101)

Advanced Video. 3 hrs. II.  
Development of the elements necessary for the production of detailed video projects. Students study the creation and production of public affairs, educational and creative video programming. (PR: JMC 332)

Radio-Television Law and Regulation. 3 hrs. II.  
Development and current status of the legal structure of broadcasting in the United States. (PR: JMC 101)

International Mass Communications. 3 hrs. II.  
Development of various systems of mass communications and comparison with the United States.

Public Relations Writing. 3 hrs. I.  
Theory and practice of various writing challenges encountered by public relations practitioners. Some consideration of publications design. (PR: JMC 201, 241 and 330)

Public Relations Case Studies. 3 hrs. I.  
Examination of the handling of public relations problems and opportunities by business, educational, governmental, and social organizations, with particular emphasis on public relations analysis and problem solving. (PR: JMC 330)

Public Relations Campaign Management. 3 hrs. II.  
Applying the four-step public relations process to an organization’s program or campaign. Includes execution of public opinion research and development of original communication tools. Competitive agency model generally used. Capstone experience (PR: JMC 437 and 438)

Mass Communication Ethics. 3 hrs. I, II, S.  
Study of basic concepts underlying contemporary American mass communications operations and practices and how those concepts affect professional ethics in the field. Examination of ethical conflicts encountered and application of ethical principles when determining solutions. Capstone experience (PR: senior standing)

Advertising in Modern Society. 3 hrs.  
An examination of current issues and problems affecting the advertising industry and a study of advertising’s impact on and responsibility to society. (PR: Junior standing)

Contemporary Issues in Radio and Television. 3 hrs. II.  
An examination of the current political, social, economic and legal issues affecting the decision making process in the newsrooms and programming centers of the electronic media. (PR: Junior standing)

Women, Minorities and the Mass Media. 3 hrs. I.  
A seminar that explores the portrayals and participation of women and people of color in the mass media.
461 Web Strategies. 3 hrs. I.
Examination of web strategies in news and strategic communication contexts. Includes online media trends, content development, ethical issues and best practices. (PR: Junior standing)

462 Web Design for Mass Media. 3 hrs. I, II.
Creative and practical aspects of typography, design and interactivity of online communications for the mass media. (PR: JMC 241 and JMC 360)

470 Professional Practicum. 1-4 hrs. I, II, S.
Instruction to assist students in meeting career expectations. Short-term courses designed to bridge instructional programs and practices of professional journalism. Students may participate in supervised publications work in reporting, editing and advertising. (PR: JMC 301, 302, or permission of instructor)

490 Journalism and Mass Communications Internship I. 1-3 hrs. I, II, S.
Supervised journalistic or mass communications work with professional media including newspapers, magazines, radio, television, advertising, and public relations departments and agencies. Conferences with instructor for guidance and evaluation. Advance arrangements must be made through the JMC internship director. Capstone experience.

491 Journalism and Mass Communications Internship II. 1-3 hrs. I, II, S.
Supervised journalistic or mass communications work with professional media including newspapers, magazines, radio, television, advertising and public relations departments or agencies. Advance arrangements must be made through the JMC internship director. Student must have completed a previous internship. Can’t be used in hours required for graduation.

495H-496H Reading for Honors in Journalism and Mass Communications. 4; 4 hrs. I, II.

LATIN (LAT)

101-102 First Year Latin. 3; 3 hrs. I, II.
(PR for Latin 102: LAT 101)

203-204 Intermediate Latin. 3; 3 hrs. I, II.
Varied readings including selections from Cicero’s Orations and Vergil’s Aeneid I-VI. (PR for Latin 203: LAT 102 or equivalent; PR for Latin 204: LAT 203 or equivalent)

240 Elements of Prose Composition. 3 hrs.
(PR: LAT 204 or 3 units of high school Latin)

280-283 Special Topics. 1-4; 1-4; 1-4 hrs.

303 Caesar’s Commentaries. 3 hrs.
A close reading in Latin of the commentaries of Julius Caesar. (PR: Latin 204 or equivalent)

304 Readings in Vergil. 3 hrs.
Introduction to the poetry of Vergil, especially Vergil’s Aeneid, and to the culture and the ideology of the Augustan principate. (PR: Latin 204 or equivalent).

305 Cicero: Speeches. 3 hrs.
A close reading in Latin of one of the political or court speeches of Cicero. (PR: Latin 204 or permission)

306 Horace: Odes, Epodes, Epistles. 3 hrs.
(PR: LAT 204 or permission)

308 Catullus. 3 hrs.
A close reading in Latin of the poetry of Catullus with consideration of its literary antecedents and its importance to Roman Literature. (PR: Latin 204 or permission)

309 Livy’s History of Rome. 3 hrs.
(PR: LAT 204 or permission)

311 Readings in Ovid. 3 hrs.
Close reading in Latin of selections from Ovid’s erotic and epic poetry. (PR: LAT 204 or permission)

403 Roman Comedy. 3 hrs.
(PR: LAT 204 or permission)

404 Roman Elegy: Propertius and Tibullus. 3 hrs.
Close readings in Latin of selections from the elegies of Propertius and Tibullus. (PR: Latin 204 or permission)

408 Roman Epistolary Literature: Cicero and Pliny. 3 hrs.
A unique look at Roman life, public and private, through a close reading in Latin of the correspondence of Cicero and Pliny the Younger. (PR: Latin 204 or permission)

409 Roman Satire: Horace, Martial, Juvenal. 3 hrs.
Close readings in Latin of selections from the satires of Horace and Juvenal and the epigrams of Martial. (PR: Latin 204 or permission)
410 Tacitus (selections from): Annals, Agricola. 3 hrs. 
(PR: LAT 204 or permission)

480-483 Special Topics in Latin. 1-4; 1-4; 1-4 hrs. I, II. 
(PR: LAT 204 or permission)

485-488 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs. 
Non-Latin majors may enroll in Latin Independent Study courses for one hour credit to meet general 
requirements in literature. For such students instruction and readings will be entirely in English. 
Consult chairman for current offerings. (PR: LAT 204 or permission)

495H-496H Honors in Latin. 4; 4 hrs. I, II. 
Open only to Latin majors of outstanding ability. See Honors Courses.

499 Capstone Experience. I, II. 0 hrs. 
A graduation requirement (completion of senior portfolio) required of all seniors in Latin A.B. pro-
gram enrolled in final required advanced Latin course, LAT 404, 408, 409, 410. (CR: LAT 404, 408,
409, or 410; PR: 15 hrs. Latin above LAT 204)

LEGAL ENVIRONMENT (LE)

207 Legal Environment of Business. 3 hrs. I, II, S. 
Law and the judicial system. The relationship of law, government, ethics and the consumer of 
business enterprise. The study of contracts, torts, government regulation of business, environmental 
and consumer protection.

308 Commercial Law. 3 hrs. I, II, S. 
A continuation of Accounting 207. Emphasizes in-depth case study of the law of commercial paper,
business organizations, security, and real and personal property. (PR: LE 207, ACC 216, MGT 218,
MTH 203)

351 Legal Aspects of Health Care Organizations. 3 hrs. II. 
A survey of basic legal problems facing a hospital administrator. The study also includes constitu-
tional and administrative law issues dealing with medicaid and medicare and regional planning. (PR:
LE 207, MGT 350, ACC 216, MGT 218, MTH 203)

MANAGEMENT (MGT)

100 Introduction to Business. 3 hrs. I,II. 
Career exploration and preparation. Emphasis on modern supervisory management techniques in 
various business fields.

150 Diversity Issues in Business. 3 hrs. 
A study of risks, challenges, and opportunities of attracting and developing a diverse workforce and 
consumer base.

218 Business Statistics. 3 hrs. I, II, S. 
Application of statistical techniques in business and economics. Topics include measures of central 
tendency and dispersion, theory of distributions, sampling distributions, estimation, hypotheses 
testing, correlation and regression analysis. (PR: MTH 123)

320 Principles of Management. 3 hrs. I, II, S. 
A comprehensive survey of the fundamental principles of management applicable to all forms of 
organizations. The course provides the student with a basis for thinking about complex business 
situations in the framework of analysis of the management process. Some case analysis of manage-
ment problems used. (PR: ACC 216, MGT 218, MTH 203)

320H Principles of Management Honors. 4 hrs. 
An accelerated course for specially selected juniors. (PR: ACC 215 and 216; ECN 250 and 253)

350 Health Care Organizations and Management. 3 hrs. I. 
A study of the structure and function of several components of Health Care Organizations and their 
interrelationships. (PR: ACC 216, MGT 218, MTH 203)

354 Health Care Services and Facilities Management. 3 hrs. II. 
A study of planning and organizing of medical services and support departments and buildings,
facilities, and equipment management. (PR: ACC 216, MGT 218, MTH 203)

360 Introduction to Small Business Management. 3 hrs. I. 
The management of small business emphasizes how they are started and financed, how they produce 
and market their products and services and how they manage their human resources. (PR: ACC 216,
MGT 218, MTH 203)

419 Business and Society. 3 hrs. I, II. 
An examination of the manager’s social and environmental responsibilities to his employees, custom-
ners, and the general public, and other external factors which management must be cognizant of in 
modern society. (PR: ACC 216, MGT 218, MTH 203)
420 Operations Management. 3 hrs. I, II, S.
Management of operation systems including system design, implementation and control. Analysis of
the system in the areas of product, process, material quality, and facilities management. Topics
include breakeven analysis, inventory models, transportation models, network analysis. Capstone
experience (PR: ACC 216, MGT 218, MTH 203)

422 Organizational Behavior. 3 hrs. I, II, S.
Problems, methods, and analysis of various theories of behavior within organizations for purposes of
integration and generalization. Emphasis will be upon the identification and investigation of the
schools of thought concerning the behavioral sciences. (PR: MGT 320)

423 Organizational Development. 3 hrs. I, II, S.
An examination of the dynamics of change within organizations. The course will examine the cause
of resistance to change and purposeful methodologies for implementing change including behav-
ioral, technological, and structural in an attempt to describe a holistic approach. Capstone
Course (PR: MGT 320)

424 Human Resource Management. 3 hrs. I, II, S.
Analyze the role of human resource managers within strategic decision making. Topics include
selection, training, assessment, compensation, and employee relations. Current topics also covered.
(PR: ACC 216, MGT 218, MTH 203)

425 Industrial Relations. 3 hrs. I, II.
A study of labor-management relations in union and non-union settings. Topics include: conflict
resolution techniques, negotiation strategy, participative management, and labor theory. Labor laws
and history are reviewed. (PR: ACC 216, MGT 218, MTH 203)

450 Business Research. 2 hrs.
Under the direction of an advisor, the student makes a study of a topic related to his field of
specialization and submits a written report. (PR: ACC 216, MGT 218, MTH 203)

454 Trends in Health Care Delivery. 3 hrs.
Discussion of trends in Health Care Delivery in the United States and related public policies and their
implications to society. (PR: ACC 216, MGT 218, MTH 203)

455 Health Care Policy Seminar. 3 hrs.
An integrative discussion course on current problems and future policies and strategies as they are
related to facilities planning and utilization, staffing and organization and providing quality health
care to community. Capstone course (PR: MGT 320, MKT 340, FIN 323, ACC 216, ECN 253, LE
207, MGT 218, Senior Standing)

456 Planning of Health Care Delivery Systems. 3 hrs.
Application of systems approach to evaluation of current health care services and for future planning
decisions. (PR: ACC 216, MGT 218, MTH 203)

460 Strategic Management. 3 hrs. I, II, S.
The integrative capstone course concerning theory and practice of top managements’ plan to attain
outcomes consistent with the organization’s mission and goals including strategy formulation,
implementation and control. Capstone course. (PR: MGT 320, MKT 340, FIN 323, ACC 216, ECN
253, LE 207, MGT 218, Senior Standing)

460H Strategic Management Honors. 4 hrs.
An accelerated course for preselected, exceptional seniors majoring in business administration
requiring extensive supervised works. Through case analysis and problem-solving, it will integrate
the knowledge acquired in previous courses. Capstone course. (PR: MGT 320, MKT 340, FIN 323,
ACC 216, ECN 253, LE 207, MGT 218, Senior Standing)

461 Management of Small Business. 3 hrs. I, II.
Managing small enterprises, as opposed to large corporations. In cooperation with the Small Business
Administration. Students work as trainee management consultants with small businesses in the area.
(PR: ACC 216, MGT 218, MTH 203)

471 Health Care Practicum I. 4 hrs. S.
Field experience in management of Health Care Operations. (PR: Permission of Division Head)

472 Health Care Practicum II. 4 hrs. S.
Field experience in management of Health Care Organizations. (PR: MGT 471)

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
Study of an advanced topic not normally covered in other courses. Management majors only, with
permission of Division Head.

485-488 Independent Study. 1-4; 1-4; 1-4 hrs.
A supervised internship in which the student works for a business firm/agency to gain practical
experience in the student’s major. The program of work and study will be defined in advance and the
student’s performance will be evaluated. (PR: Permission of Dean)
495H-496H Readings for Honors in Management. 2-4; 2-4 hrs.
Open only to students of outstanding ability. See Honors Courses.

MANAGEMENT INFORMATION SYSTEMS (MIS)

207 Introduction to Programming for Business. 3 hrs. I, II, S.
An introduction to 4GL Programming in a business context for MIS and other business majors. (PR: ACC 216, MGT 218, MTH 203)

257 Business Programming II. 3 Hrs. I, II, S.
Continuation of Visual Basic I, emphasis is on data structures (databases, queues, sorts, link-lists) and programming in a Windows environment. Programming projects will be oriented toward solving real-world business problems. (PR: MIS 207)

290 Principles of Management Information Systems. 3 hrs. I, II, S.
To develop and use decision driven information systems. Emphasis on MIS/DDS applications common to business environments. Importance of communicating effectively with professional systems development groups will also be stressed. (PR: ACC 216, MGT 218, MTH 203)

310 Business System Analysis and Design. 3 hrs. I, II.
The course covers business application systems development, behavioral considerations in the development process, feasibility assessment, requirement analysis, and communication skills. Emphasis on prototyping and fourth generation languages. (PR: ACC 216, MGT 218, MTH 203)

333 Business Telecommunication Systems. 3 hrs. I, II.
To understand the applications, concepts and management of telecommunications. Students will be exposed to network components and network operations. Emphasis will be on strategic business applications of telecommunication systems. (PR: ACC 216, MGT 218, MTH 203)

340 Database Management Systems. 3 hrs. I, II.
A study of database design, data structures, and database administration in a business environment. File processing with multiple databases will also be taught. (PR: ACC 216, MGT 218, MTH 203)

350 Developing E-Commerce Systems. 3 hrs. I, II.
Introduction to tools and technologies for developing electronic business applications. Client/server, data access protocols, scripting, business transactions, security, shopping carts, merchandising, and credit card payments. (PR: ACC 216, MGT 218, MTH 203, MIS 290)

411 Business System Analysis and Design. 3 hrs. I, II.
This course extends the concepts and techniques in MIS 310 to enable students to design and implement systems in a business environment. The implementation of a computer application will be required. (PR: MIS 310)

433 Advanced Telecommunications and Networks. 3 hrs.
An advanced study of the design, implementation and operation of voice, data, video networks using digital and analog technologies. (PR: MIS 333)

444 Advanced Database Management Systems. 3 hrs.
A study of database design, data structures, and database administration in a business environment. Focusing on advance Structured Query Languages using a market leading DBMS. (PR: MIS 340)

450 E-Commerce Systems Management. 3 hrs.
Modeling electronic business systems. Identifying requirements, conceptual and logical design, user interface and data management. Integration with internal and external systems. (PR: MIS 350)

465 Business Decision Support Systems. 3 hrs.
A study of decision support systems (DSS) in terms of building and providing end-user support for managerial decision making. Advanced topics will include computer interface design and artificial intelligence. (PR: ACC 216, MGT 218, MTH 203)

470 Business Systems Development Project. 3 hrs. I, II.
Continuation of the techniques and concepts learned in MIS 330 and MIS 340 courses. Students will be required to design, develop, and implement an information system. (PR: MIS 209, MIS 310 and MIS 340)

475 Strategic Management Information Systems. 3 hrs. I, II.
A capstone course for management majors. Emphasis will be on creating and using information systems to give businesses a competitive advantage and provide strategic support for all levels of management. Capstone course (PR: Senior Standing, ACC 216, MGT 218, MTH 203)

480-483 Special Topics. 1-4; 1-4; 1-4 hrs.
Study of an advanced topic not normally covered in other courses. Management Information Systems majors only, with permission of division head.

485-488 Independent Study. 1-4; 1-4; 1-4 hrs.

490 Internship. 3-12 hrs. CR/NC.
A supervised internship in which the student works for a business firm/agency to gain practical experience in the student’s major. The program of work and study will be defined in advance and the student’s performance will be evaluated. (PR: Permission of dean.)
MARKETING (MKT)

231 Principles of Marketing. 3 hrs. I, II.
Elements of professional personal selling from prospecting through follow-up designed for individuals preparing for a career in sales/marketing and those desiring skills to influence, persuade, or lead others.

340 Principles of Marketing. 3 hrs. I, II, S.
Introduction to marketing as the central activity of organizations in creating exchanges with customers. Focuses on strategies related to environmental opportunities and threats using product, price, promotion and distribution tools. (PR: ACC 216, MGT 218, MTH 203)

341 Promotion Management. 3 hrs. I, II.
A managerial analysis of the principles and practices of the promotion mix from the viewpoints of the consumer, the firm, the industry, and the macroenvironment. (PR: MKT 340)

344 Retail Management. 3 hrs. I, II.
Overview of retailing (store and non-store sales to consumers) to familiarize students with such topics as buying, selling, location, store design, display, promotion, pricing, inventory control, staffing and retailing strategy. (PR: ACC 216, MGT 218, MTH 203)

349 Principles of Domestic Transportation. 3 hrs. II.
Introduction to the history, economics, and regulation of U.S. domestic motor, rail, water, air and pipeline transportation. Particular emphasis is placed upon the significance of transportation to the development of the United States and today's economy. (PR: ACC 216, MGT 218, MTH 203)

350 Physical Distribution. 3 hrs. I, II.
A supply chain approach is used to explain activities that create an efficient flow of products from point of origin to point of consumption in order to satisfy customer requirements. (PR: ACC 216, MGT 218, MTH 203)

351 Traffic Management. 3 hrs.
Concerned primarily with the function of buying transportation service. Includes the mechanics of transportation pricing and detailed coverage of services legally includable in the price. (PR: ACC 216, MGT 218, MTH 203)

371 International Marketing. 3 hrs. I, II, S.
A study of marketing across national borders. Emphasis is placed on foreign environments, methods of entry, and marketing mix development, including the conflict between standardization and adaptation. (PR: MKT 340)

414 Purchasing and Inventory Control. 3 hrs. II.
In-depth analysis of procurement function, problems and techniques. Maintenance of proper inventory level, ordering methods, and product management at both the retail and industrial levels. (PR: ACC 216, MGT 218, MTH 203)

437 Consumer Behavior. 3 hrs. I, II.
Acquaints the student with individual and group behavior as it pertains to consumer activity. Theories and findings in the behavioral sciences, as well as those set forth by marketing scholars, are examined so as to understand the behavioral patterns of consumers. Cultural, social, and psychological influences are considered, in addition to the traditional economic interpretations. The stress of the course is on incorporating these data into the managing of the marketing effort. (PR: ACC 216, MGT 218, MTH 203)

440 Sales Management. 3 hrs. I, II.
An exploration of the duties and activities of sales managers. Topics typically include planning and forecasting as well as organizing, staffing, training, compensating, motivating, and evaluating the sales force. (PR: MKT 340)

442 Market Research. 3 hrs. I, II.
Scope and importance of market and distribution research; product, package, brand analysis and social impact; consumer, industrial and institutional survey, quantitative and qualitative analysis of market data; situation analysis, sampling, tabulation and presentation methods. (PR: MKT 340)

449 Transportation Law and Public Policy. 3 hrs. I.
Comprehensive review of the regulation of carriers and transportation in general. Comparison of the principal transportation regulatory acts, functions of the procedure before the several regulatory commissions. (PR: ACC 216, MGT 218, MTH 203)

450 Carrier Management. 3 hrs. II.
Management of transportation carriers including the unique constraints faced by such firms due to the regulatory system, transportation competition, route structures, ownership patterns, pricing and rate making. (PR: ACC 216, MGT 218, MTH 203)

465 Marketing Management. 3 hrs. I, II.
Capstone integrated study of marketing for decision making. Emphasis on the application of marketing principles and concepts for the purpose of developing, analyzing and modifying marketing plans and strategy. Capstone course. (PR: MKT 340)
480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.  
Study of an advanced topic not normally covered in other courses. Marketing majors only, with permission of division head.

485-488 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.  
A supervised experience in which the student works for a business firm/agency to gain practical experience by completing a defined work program. Student performance is evaluated. (PR: Permission of Division Head)

MATHEMATICS (MTH)

101 Introduction to the Graphing Calculator. 1 hr.  
Getting started, menus, syntax, order of operations, evaluating functions, solving equations, graphing, plotting data, finding best fit approximations, performing matrix operations, and solving linear systems.

102 Intermediate Graphing Calculators. 1 hr.  
Differentiation, integration, input/output, interfacing, advanced graphing techniques, and infinite series. The primary emphasis of the course will be on programming.

104 Spreadsheets for Mathematics. 1 hr.  
Spreadsheet skills useful in mathematics. Data entry, entering and applying formulas, charts/graphs, sequences and series, elementary statistics, formatting output.

106 Introduction to Computer Algebra Systems. 1 hr.  
A survey of computer algebra techniques including entering data, algebraic manipulations, solving equations, graphing, calculus applications, elementary programming, and statistics. (PR: MTH 229)

121 Concepts and Applications of Mathematics. 3 hrs.  
A course for non-science majors that develops quantitative reasoning skills. Topics include logical thinking, problem solving, linear modeling, beginning statistics and probability, exponential and logarithmic modeling, financial and geometry concepts. (PR: MAT 097 or Math ACT 19 or above)

121B Concepts and Applications of Mathematics with Algebra Review. 5 hrs.  
Quantitative reasoning skills for non-science majors. Topics include logical thinking, problem solving, linear modeling, beginning statistics and probability, exponential and logarithmic modeling, formula use, with basic algebra review. (PR: Math ACT 18 and permission of University College)

122 Plane Trigonometry. 3 hrs.  
A study of the trigonometric functions, graphs of the trigonometric functions, identities, equations, inverse trigonometric functions, vectors, complex numbers, and applications. (PR or CR: MTH 127 or 123 or at least 21 on Mathematics ACT)

123 College Algebra. 3 hrs.  
Polynomial, rational, exponential, and logarithmic functions. Graphs, systems of equations and inequalities, sequences. (PR: MTH 123 or at least 21 on Math ACT)

127 College Algebra - Expanded Version. 5 hrs.  
A brief but careful review of the main techniques of algebra. Polynomial, rational, exponential, and logarithmic functions. Graphs, systems of equations and inequalities, sequences. (PR: MAT 097 or Math ACT 19 or 20)

129 Selected Topics in College Algebra. 3 hrs.  
Solve equations and inequalities, solve systems of linear equations, study of functions (including exponential and logarithmic functions), matrices, basic probability and statistics. Applications mostly in business and economics. (PR: MAT 097 or equivalent, or Mathematics ACT at least 19)

130 Precalculus with Science Applications. 5 hrs.  
Polynomial, rational, exponential, logarithmic, and trigonometric functions. Graphs, vectors, systems of equations and inequalities, sequences. (PR: MTH 123 or at least 21 on Math ACT)

140 Applied Calculus. 3 hrs.  
A brief survey of calculus including both differentiation and integration with applications. Not to be substituted for Mathematics 229 or Mathematics 203. (PR: Two years of high school algebra and at least 21 on ACT, or MTH 123)

203 Calculus for Business. 3 hrs.  
Fundamental aspects of calculus are covered with applications in business and economics. The topics covered include limits, differentiation, integration, and some multivariable calculus. (PR: MTH 123 or equivalent, or Math ACT at least 27)

225 Introductory Statistics. 3 hrs.  
Basic probability, descriptive statistics, fundamental statistical inference procedures involving estimation and hypothesis testing for a variety of situations with wide applications. (PR: Math ACT 19 or MTH 123 or higher)
229 Calculus with Analytic Geometry I. 5 hrs.
An introduction to analytic geometry. Limits, derivatives, and integrals of the elementary functions of one variable, including the transcendental functions. (PR: MTH ACT of 27 or above, or MTH 130 and 122, or MTH 127 and 122, or MTH 132)

230 Calculus with Analytic Geometry II. 4 hrs.
Applications of the integral, techniques of integration, and infinite series. A study of conic sections, polar coordinates, and parametric equations. (PR: MTH 229)

231 Calculus with Analytic Geometry III. 4 hrs.
Vectors, curves, and surfaces in space. Derivatives and integrals of functions of more than one variable. A study of the calculus of vector valued functions. (PR: MTH 230)

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
(PR: Permission of the chairman)

300 Introduction to Higher Mathematics. 3 hrs.
A transition between elementary calculus and higher mathematics with emphasis on techniques of proof. (PR: MTH 230)

301 Junior Seminar. 1 hr.
An introduction to reading, writing and speaking mathematics. Students will explore topics related to a theme chosen by the instructor.

330 Linear Algebra. 3 hrs.
Vector spaces, matrices and determinants, systems of linear equations, linear transformations, eigenvalues, eigenvectors, and applications. (PR: At least one course above MTH 121 or at least 28 on Mathematics ACT)

335 Differential Equations. 4 hrs.
First and second-order ordinary differential equations. Applications include vibrations and electrical circuits. Laplace transform, approximate solutions, orthogonal functions, Fourier series; partial differential equations including heat, wave, and Laplace equations. (PR: MTH 231 or permission of instructor)

340 Discrete Structures. 3 hrs.
Sets, relations, directed and undirected graphs, monoids, groups, lattices, Boolean algebra, and propositional logic. (PR: MTH 230 or permission)

400 Structure of Algebra. 3 hrs.
Informal development of modern elementary algebra. Recommended for preservice middle school teachers and for elementary and secondary in-service teachers. May not be used for either a 5-12 mathematics specialization or for any degree offered by the Mathematics Department. (PR: MTH 130 or equivalent)

401 Structure of Modern Geometry. 3 hrs.
Informal development of geometry with an exploration of probability and statistics. Recommended for preservice middle school teachers and for elementary and secondary in-service teachers. May not be used for either a 5-12 mathematics specialization or for a degree offered by the Mathematics Department. (PR: MTH 130 or equivalent)

405 History of Mathematics. 3 hrs.
A study of the history of mathematics from the time of the ancient Greeks to the end of the nineteenth century. (PR: MTH 229)

411 Mathematical Modeling. 3 hrs.
Students work in teams to construct mathematical models of various real-world situations. Problems to be modeled are drawn from diverse areas of application and use a wide range of undergraduate mathematics. (PR: MTH 231, or MTH 230 and permission of instructor)

415 Applied Mathematics - Boundary Value Problems. 3 hrs.
Elementary partial differential equations. Heat equation, Laplace's equation, separation of variables, Fourier series, vibrating strings, eigenvalue problems, finite differences, Bessel functions, Legendre polynomials. (PR: MTH 330 & MTH 335 or permission)

427 Advanced Calculus I. 3 hrs.
A rigorous study of the real number system, continuity and differentiability of functions of a single variable, integration of functions of a single variable, infinite series. (PR: MTH 231 and 300, REC: MTH 330)

428 Advanced Calculus II. 3 hrs.
A rigorous development of algebra and topology of Euclidean spaces, differentiability and integrability of functions of several variables. (PR: MTH 427)

442 Numerical Linear Algebra. 3 hrs.
443 Numerical Analysis. 3 hrs.
The theory and technique of numerical computation involving the difference calculus, the summation calculus, interpolation methods, solution of systems of equations, and numerical differentiation and integration. (PR: MTH 230)

445-446 Theory of Statistics. 3; 3 hrs. I, II.

448 Fundamental Concepts of Modern Geometry. 3 hrs.
Finite geometries, basic background material for the modern development of Euclidean Geometry, other geometries. (PR: MTH 230)

449 Projective Geometry. 3 hrs.
Projective geometry using both synthetic and algebraic methods. (PR: MTH 230)

450 Modern Algebra I. 3 hrs.
Structure of the abstract mathematical systems: fields, rings, groups, with illustrations and applications from number theory. (PR: MTH 230 and MTH 300)

480-483 Special Topics in Mathematics. 1-4; 1-4; 1-4; 1-4 hrs.
Courses on special topics not listed among the current offerings. (PR: Permission of the Chairman of the Department of Mathematics and permission of instructor)

485-488 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.

491 Senior Seminar. 3 hrs.
Capstone experience in reading, doing, writing and speaking mathematics. Students will explore topics related to a theme chosen by the instructor. (PR: Junior Seminar, plus any two of: MTH 427, 445, 450)

MEDICAL LABORATORY TECHNICIAN
(See Clinical Laboratory Sciences)

MEDICAL TECHNOLOGY
(See Clinical Laboratory Sciences)

MILITARY SCIENCE (MS)

101 Introduction to ROTC. 2 hrs. I, II, S.
Increase self-confidence through team study and activities in physical fitness, land navigation, first aid, and basic drill. Learn fundamental concepts of leadership in both classroom and outdoor laboratory environments. (CR: MS 101L)

101L-102LMilitary Science Basic Course Leadership Laboratory I. 1 hr.
Learn and practice basic soldier skills and field craft. Build self-confidence and team building leadership skills through activities in drill, repelling and basic marksmanship that can be applied throughout life. (CR: MS 101 and 102)

102 Introduction to Leadership. 2 hrs.
Learn/apply principles of effective leading. Develop communication skills to improve individual performance and group interaction. Relate organizational ethical values to effectiveness of a leader. (CR: MS 102L, PR: MS 101 or departmental permission)

201 Self and Team Development.
Learn ethics-based leadership skills that develop individual abilities and contribute to team building. Develop skills in communications, event planning, group coordination, advanced first aid, land navigation and basic tactics. (CR: 201L; PR: MS 102 or departmental permission)

202 Individual and Team Military Tactics. 2 hrs. I, II, S.
Introduction to individual and team military tactics in squad operations. Includes: communications, safety assessments, movement techniques, planning for safety/security, training management, and methods of preoperational checks. (CR: MS 202L, PR: MS 201 or departmental permission)

201L-202L Leadership Laboratory II. 1 hr.
Practice and refine the basic soldier skills and field craft learned in MS 101L/102L. Build self-confidence and team-building skills through leadership opportunities supervising MS101L/MS102L cadets. (CR: MS 201 and 202)

209 Nursing in the Army. 2 hrs. I, II.
An overview of aspects, career opportunities and progression for Army nurses. Instruction will provide insights of the ROTC program for nurses.
Ranger Operations and Techniques. 2 hrs. I, II.
Provides an overview of U.S. Army Ranger history, organization, and mission. Small unit tactics, leadership, patrolling techniques, marksmanship, repelling, and land navigation.

Application of Marksmanship Fundamentals. 2 hrs. I, II, S.
Teaches the fundamentals of rifle marksmanship in a competitive environment through the use of competition grade air rifles. Students learn shooting techniques, safety, range operations and competitive shooting skills.

Military Leadership. 2 hrs. I, II, S.
An examination of successful leadership traits, styles, and techniques as they relate to the development of effective military organizations.

Army Physical Readiness Program. 1 hr. I, II, S.
A complete physical training program concentrating on cardiorespiratory, strength and endurance exercises; designed to improve total fitness through a slow and flexible progression.

Camp Challenge. 6 hrs. S.
This course is six-week camp consisting primarily of applicatory training conducted during the summer at Fort Knox, Kentucky. It is designed to replace the first two years of on-campus ROTC training. Students who successfully complete the course are eligible to enter advanced military science training with departmental permission.

Leading Small Organizations I. 3 hrs. I, II.
Uses small unit defensive tactics and opportunities to plan and conduct training. Practical opportunities to lead small groups, receive personal assessments/encouragement, and lead in situations of increasing complexity. (CR: MS 301L, PR: MS 101, 102, 201 and 202 or MS 251 or department permission)

Leading Small Organizations II. 3 hrs.
Analyze tasks; prepare written/oral guidance; delegate, and supervise. Plan for and adapt to the unexpected under stress. Examine and apply lessons from leadership cases studies, study ethical decision making. (PR: MS 301/302)

ROTC Advanced Camp. 6 hrs. (non-resident) S.
A five-week camp at an active army post; it is highly structured and demanding, stressing leadership at small unit levels under varying, challenging conditions. Individuals are evaluated throughout camp. (PR: MS 302)

Articulate goals, plan, conduct, and evaluate activities of the ROTC cadet organization. Assess organizational cohesion and develop improvement strategies. Develop confidence in leadership skills and manage resources. (PR: MS 302; CR: MS 401L)

Advance Course Leadership Lab IV.
Students develop, practice and refine leadership skills by serving a variety of leadership positions. Students are responsible for the planning, coordination, execution and evaluation of training for students enrolled in MS 101L-MS 302L. (CR: MS 401, 402)

Transition to Lieutenant.
Identify/resolve ethical dilemmas. Refine counseling/motivating techniques. Examine aspects of tradition and law as relating to an Army officer. Prepare for a future as a successful Army lieutenant. (PR: MS 401/401L; CR: MS 402L)

Special Topics. 1-4; 1-4 hrs.
(An overview of mining to provide the participant with a general understanding of mining history, development systems terminology, procedures, methods, and safety and health activities.

Mine Safety Program Analysis. 3 hrs.
This course prepares the participant for the effective analysis of safety programs and provides some specific applications in the mining environment.

MINE SAFETY (MSF)

397 Mining and Industrial Hygiene Sciences. 3 hrs. I or II.
Algebra, chemistry, human anatomy and physiology as applicable to Industrial Hygiene calculations; hazards encountered and physiological systems affected. (PR: CHM 212 or equivalent)

410 Survey of Mining. 3 hrs.
An overview of mining to provide the participant with a general understanding of mining history, development systems terminology, procedures, methods, and safety and health activities.

411 Mine Safety Program Analysis. 3 hrs.
This course prepares the participant for the effective analysis of safety programs and provides some specific applications in the mining environment.

Courses of Instruction
412 Mine Safety and Health Legislation. 3 hrs.
A survey of the legislation that has affected safety and health in mining with special emphasis of the Federal Mine Safety and Health Act of 1977.

413 Mine Safety and Health Management. 3 hrs.
This course covers the principles, functions and philosophies of mine management.

414 Hazards Control in Mining. 3 hrs.
A study of how to recognize accident potential throughout the mining industry.

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
A study of special topics not offered in regularly scheduled courses.

485-488 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.

MUSIC (MUS)

100 Applied Music Laboratory. 0 hrs. I, II.
A forum devoted to the development of applied music area, supplying the opportunity for music majors both to demonstrate performance skills and to observe the skills of colleagues.

101 Basic Musicianship. 3 hrs. I.

115-116 Elementary Music Theory. 4 hrs. each. I, II.
A thorough study of the melodic, harmonic and rhythmic elements of music through writing, playing, singing and listening. Includes triads, modulation, seventh chords, sight-singing, melodic and harmonic dictation. (MUS 101 or permission is a prerequisite for MUS 115; MUS 115 is a prerequisite for MUS 116)

121 Aural Perception of Music Literature. 2 hrs. I.
Development of aural skills in perceiving timbre, texture, rhythm, meter, linear organization, harmonic organization, and form through listening to selected works and study of their scores.

142 Appreciation of Music. 3 hrs. I, II, S.
Development of an appreciation and understanding of music as a fine art, including experiences from a variety of sources drawn from many layers of cultures and civilizations. For non-music majors.

171-371 African Drum and Dance Ensemble.

174-374 Irish Ceili Band.

177 a,b Class Guitar. 1; 1 hr. I, II.
Classes for guitar majors and elective students.

178 a,b Class Voice. 1; 1 hr. I, II.
Classes for voice minors and electives designed for beginners. (PR: Permission)

179 a,b,c,d Class Piano. 1; 1; 1; 1 hr.
Classes for piano minors and electives progressing from beginner to proficiency level. (PR: Permission)

181a,b,c,d-381a,b,c,d Applied Music. Saxophone .1-2; 1-2 hrs. I,II.

182a,b,c,d-382a,b,c,d Applied Music. Flute .1-2; 1-2 hrs. I,II.

183a,b,c,d-383a,b,c,d Applied Music. Oboe .1-2; 1-2 hrs. I,II.

184a,b,c,d-384a,b,c,d Applied Music. Clarinet .1-2; 1-2 hrs. I,II.

185a,b,c,d-385a,b,c,d Applied Music. Bassoon .1-2; 1-2 hrs. I,II.

186a,b,c,d-386a,b,c,d Applied Music. French Horn .1-2; 1-2 hrs. I,II.

187a,b,c,d-387a,b,c,d Applied Music. Trumpet .1-2; 1-2 hrs. I,II.

188a,b,c,d-388a,b,c,d Applied Music. Trombone. 1-2; 1-2 hrs. I,II.

189a,b,c,d-389a,b,c,d Applied Music. Euphonium. 1-2; 1-2 hrs. I,II.

190a,b,c,d-390a,b,c,d Applied Music. Tuba .1-2; 1-2 hrs. I,II.

191a,b,c,d-391a,b,c,d Applied Music. Violin .1-2; 1-2 hrs. I,II.

192a,b,c,d-392a,b,c,d Applied Music. Viola .1-2; 1-2 hrs. I,II.

193a,b,c,d-393a,b,c,d Applied Music. Cello .1-2; 1-2 hrs. I,II.

194a,b,c,d-394a,b,c,d Applied Music. String Bass .1-2; 1-2 hrs. I,II.

195a,b,c,d-395a,b,c,d Applied Music. Piano .1-2; 1-2 hrs. I,II.

196a,b,c,d-396a,b,c,d Applied Music. Voice .1-2; 1-2 hrs. I,II.

197a,b,c,d-397a,b,c,d Applied Music. Organ .1-2; 1-2 hrs. I,II.

198a,b,c,d-398a,b,c,d Applied Music. Percussion .1-2; 1-2 hrs. I,II.

199a,b,c,d-399a,b,c,d Applied Music. Guitar .1-2; 1-2 hrs. I,II.

Course descriptions and standards of performance are available in the Office of the Chairman.

203-403 Choral Union. 1; 1 hr. I, II.
Large choral ensemble available to university and regional singers without audition. Gives public performances of oratorios and works for chorus and orchestra twice a year. One rehearsal per week.
204-404 Marshall University Chorus. 1; 1 hr. I, II.
A mixed chorus of 60-90 singers open to all university students without audition. Public performances of a variety of music are given each semester. Three rehearsals per week.

206-406 Opera Workshop. 1; 1 hr. I, II.
Preparation and performance of opera scenes and full operas. Membership open to students as singers, pianists, and technical personnel. Roles assigned by audition. Two rehearsals per week plus private coaching. (PR: Audition with Director)

207-407 Marshall University Chamber Choir. 1; 1 hr. I, II.
Advanced, auditioned choral ensemble open to all university students. Repertoire performed locally and on tour includes great chamber literature of the past five centuries. Three rehearsals per week. (PR: Audition with Director)

208-408 Orchestra. 1; 1 hr. I, II.
The Marshall Community Orchestra is open to all university students, faculty, and interested musicians in the community with permission of the instructor. Concerts are presented each semester. (PR: Audition with Director)

210 Introduction to Electronic Music. 2 hrs.
A nontechnical introduction to the theory, practice and literature of electronic music. Open to non-music majors.

215-216 Advanced Music Theory. 4 hrs. each. I, II.
Advanced modulation, chromatic harmony and advanced melodic and harmonic dictation, sight-singing. Homophonic forms and 20th century concepts are introduced. (MUS 116 is PR for 215; MUS 215 is PR for 216)

222 Italian and English Diction for Singers. 2 hrs.
A systematic study of the pronunciation and problems encountered by singers when performing repertoire with English and Italian texts.

224 French and German Diction for Singers. 2 hrs.
A systematic study of the pronunciation and problems encountered by singers when performing repertoire with French and German texts. (PR: MUS 222)

250 Survey of Jazz. 3 hrs.
A survey of the development of jazz and related forms from the 19th century antecedents to recent experimental trends.

252-452 Cello Ensemble.
Cello students will rehearse and perform works from the major literature for cello ensemble.

253-453 Guitar Ensemble. 1 hr.
An ensemble elective for guitar majors and qualified guitar elective students that focuses on sight reading skills, ensemble accuracy and position playing.

254-454 Flute Ensemble. 1; 1 hr. I, II.
Performs a wide variety of musical styles from full flute choir to quartets, trios, etc. Membership required of all flute majors; others by audition. One rehearsal per week.

255-455 String Ensemble. 1; 1 hr. I, II.
(PR: Audition with Director)

256-456 Woodwind Ensemble. 1; 1 hr. I, II.
(PR: Audition with Director)

257-457 Percussion Ensemble. 1; 1 hr. I, II.
(PR: Audition with Director)

258-458 Brass Ensemble. 1; 1 hr. I, II.
(PR: Audition with Director)

259-459 Jazz Ensemble. 1; 1 hr. I, II.
(PR: Audition with Director)

261 String Techniques. 1 hr. I, II.

262 Woodwind Techniques. 1 hr. I, II.

263 Brass Techniques. 1 hr. I, II.

264 Percussion Techniques. 1 hr. I, II.

265-465 Symphonic Band. 1 hr. I, II.

266-466 Marching Band. 1; 1 hr. I.

267-467 Wind Symphony. 1; 1 hr. I, II.
(PR: Audition with Director)

268-468 Pep Band. 1; 1 hr. II.

270-470 Music Production Practicum. 1-3 hrs.
Application of musical production processes, theories, and techniques. Specialized practical experience in all music aspects of rehearsal and performance.

280-283 Special Topics. 1-4; 14; 1-4; 1-4 hrs.
301 Analysis. 2 hrs. I.
The study of small and large forms; song form, minuet, variation, fugue, rondo, sonata, etc. Recognition of various forms by ear and by sight. (PR: MUS 216)

302 Advanced Analysis. 2 hrs. II.
A study of larger musical forms and contemporary applications of older forms. Recognition of these forms by sight and sound. (PR: MUS 301)

304 Styles. 2 hrs. I.
An investigation of the distinguishing characteristics of the music of major composers by the study, dissection and comparison of major works. (PR: MUS 302)

312-313 Vocal Techniques. 1; 1 hr. I, II.
Foundation principles of voice usage, interpretation, and problems of vocal pedagogy. For instrumental music education majors. Courses must be taken in sequence. (PR: MUS 312 for 313)

315 Instrumental Conducting. 2 hrs. I.
Techniques and mechanics of the baton with emphasis on securing attacks, releases, dynamics, and tempo changes. Analysis of band and orchestral scores with practical application. (PR: MUS 216)

320 Instrumental Arranging. 2 hrs. I.
The study of the instruments of the modern orchestra, their history, technical possibilities and limitations, and practical application of technique in public school work. (PR: MUS 216)

321 Choral Arranging. 2 hrs. I, II.
Score writing and arranging for vocal ensembles of two to eight parts. (PR: MUS 216)

322 Orchestration. 3 hrs.
The study of the instruments of the modern orchestra, their history, technical possibilities and limitations, and practical application of technique in public school work. (PR: MUS 216)

Elementary music education techniques, including movement, song, dance, rhythm, and musicianship. Study of Orff, Kodaly, Dalcroze techniques. Curriculum design and incorporation of music curriculum into elementary curriculum. Field experience required. (PR: EDF 218, 319)

339 Music Education: Materials and Methods in Instrumental Music (Grades 5-12). 3 hrs. II.
Intensive study of materials and methods of instrumental music in middle and secondary grades. Curriculum design and incorporation of music curriculum into general curriculum. Field experience required. (PR: EDF 218, 319)

340 Music Education: Materials and Methods in Choral and General Music (Grades 5-12). 3 hrs. II.

342 Music Materials and Procedures. 3 hrs. I, II, S.
Materials and procedures for teaching music in nursery school, kindergarten and grades K-6. (PR: MUS 142 and permission of College of Education and Human Services)

376 Junior Recital. 1 hr.

401 Research in Music. 3 hrs.
Basic research procedures and bibliography study culminating in a project in the student's area of specialization. (PR: Permission of instructor and MUS 216)

410 Introduction to World Music. 3 hrs.
This course will survey native musics of Africa, Asia, and the Americas as an aspect of culture. No formal background in music is required, as students will learn techniques for listening and articulating responses to music. (PR: Sophomore standing or above)

415 Choral Conducting. 2 hrs. I.
Continuation of Music 315 with emphasis on interpretations, voice classification, intonation, choral repertoire, and program building. Opportunity for practical experience is provided by the various college choral organizations. (PR: MUS 315)

422 History and Literature of Music. 2 hrs. I.
From Medieval through Baroque periods, including form and texture in music, study of major works, listening to music, project reports. Designed for music majors (PR: MUS 121)

423 History and Literature of Music. 3 hrs. II.
Classical and Romantic periods, including form and texture in music, study of major works, listening to music, project reports. Designed for music majors. (PR: MUS 422)

425 Music of the Twentieth Century. 3 hrs. I.
Study of the major schools and developments in all aspects of twentieth-century music through reading, analysis, listening, and project reports. Designed for music majors (PR: MUS 216, 422, 423)

426 American Music and Its Influences. 3 hrs. II.
Musical and cultural influences of European, West African, Caribbean, and Native American societies on United States music from 1650 to 1920. Specific application to concert music.
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>428</td>
<td>Song Literature</td>
<td>2 hrs.</td>
<td>A discussion of the development of the art song in western civilization. Study of song literature including texts, accompaniments, interpretation, and program building. For singers and accompanists. (PR: Sophomore hearing or permission of instructor)</td>
</tr>
<tr>
<td>429</td>
<td>Vocal Pedagogy</td>
<td>2 hrs.</td>
<td>Review of materials, concepts, and methodology used in teaching singing; overview of anatomy and function of the voice. Emphasis on beginning and intermediate levels.</td>
</tr>
<tr>
<td>430</td>
<td>Composition</td>
<td>2 hrs.</td>
<td>Experience in writing music compositions in various forms. (PR: MUS 216 and 301)</td>
</tr>
<tr>
<td>431</td>
<td>Advanced Composition I</td>
<td>3 hrs.</td>
<td>Experience in writing musical compositions in various forms to develop skill in twentieth-century compositional techniques. (PR: MUS 430)</td>
</tr>
<tr>
<td>432</td>
<td>Electronic Music Composition</td>
<td>2 hrs.</td>
<td>The theory and practice of the use of electronic mediums of composition. Synthesizer and tape recording techniques will be emphasized. Primarily for music majors. (PR: MUS 216)</td>
</tr>
<tr>
<td>433</td>
<td>Advanced Composition II</td>
<td>3 hrs.</td>
<td>Experience in writing musical compositions in larger forms using twentieth-century compositional techniques. (PR: MUS 431)</td>
</tr>
<tr>
<td>440</td>
<td>Piano Teaching Techniques and Materials</td>
<td>2 hrs.</td>
<td>Materials and techniques of presentation; development of reading skills; basic fundamentals of technique; cultivation of musicianship. Emphasis is on elementary and intermediate levels.</td>
</tr>
<tr>
<td>441</td>
<td>Piano Literature I</td>
<td>2 hrs.</td>
<td>Investigation of the historical significance, stylistic and technical aspects, and performance problems in solo keyboard repertoire from J.S. Bach to Schubert. (PR: MUS 216 and 4 semesters advanced applied piano or equivalent)</td>
</tr>
<tr>
<td>442</td>
<td>Piano Literature II</td>
<td>2 hrs.</td>
<td>Investigation of the historical significance, stylistic and technical aspects, and performance problems in solo keyboard repertoire from Chopin to the present. (PR: MUS 216 and 4 semesters advanced applied piano)</td>
</tr>
<tr>
<td>444</td>
<td>Guitar Literature</td>
<td>2 hrs.</td>
<td>A survey of the literature for guitar from c. 1400 to the twentieth century. (PR: Permission)</td>
</tr>
<tr>
<td>447</td>
<td>Guitar Pedagogy</td>
<td>2 hrs.</td>
<td>A survey of guitar pedagogy literature, and a practicum in teaching classical guitar. (PR: Permission)</td>
</tr>
<tr>
<td>480-483</td>
<td>Special Topics</td>
<td>1-4 hrs.</td>
<td></td>
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<tr>
<td>485-488</td>
<td>Independent Study</td>
<td>1-4 hrs.</td>
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<tr>
<td>491-494</td>
<td>Workshops</td>
<td>1-4 hrs.</td>
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<tr>
<td>498</td>
<td>BFA Composition Capstone</td>
<td>2 hrs.</td>
<td>A discipline-based experience designed to combine classroom and studio education in a summarizing project. (PR: MUS 401, 302 and 304)</td>
</tr>
<tr>
<td>499</td>
<td>BFA Performance Capstone</td>
<td>2 hrs.</td>
<td>A discipline-based experience designed to combine classroom and studio education in a summarizing project. (PR: MUS 401, 302 and 304)</td>
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**NURSING (NUR)**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>120</td>
<td>Introduction to Nursing</td>
<td>8 hrs.</td>
<td>6 theory-2 clinical. (ASN only)</td>
</tr>
<tr>
<td>219</td>
<td>Nursing Assessment of Individuals</td>
<td>3 hrs.</td>
<td>Study of nursing assessment of the individual through the life span in relation to wellness promotion and the impact of illness. Basic students: Completion of freshman level classes. (PR: Permission)</td>
</tr>
<tr>
<td>220</td>
<td>Health Alternations I</td>
<td>8 hrs.</td>
<td>Focus is on nursing care of adult clients responding to potential and actual health alterations. (PR: NUR 120; CR: BSC 250, PSY 311)</td>
</tr>
<tr>
<td>221</td>
<td>Foundations of Professional Nursing I</td>
<td>5 hrs.</td>
<td>Introduction to philosophical and theoretical foundations of nursing, exploration and integration of concepts and processes basic to professional nursing practice. Practicum included. (PR: Permission)</td>
</tr>
<tr>
<td>222</td>
<td>Foundations of Professional Nursing II</td>
<td>6 hrs.</td>
<td>Introduction to professional nursing practice in relation to potential and simple alterations in health. Practicum included. (PR: Permission)</td>
</tr>
<tr>
<td>225</td>
<td>Psychiatric Nursing</td>
<td>4 hrs.</td>
<td>3 theory-1 clinical. (ASN only)</td>
</tr>
</tbody>
</table>

**Courses of Instruction**

Marshall University
230 Health Alterations II. 8 hrs. 5 theory-3 clinical. (ASN only)
Focus is on nursing care of adult clients with health alterations of specific physiological systems. Role requirements and processes utilized in managing groups of clients is introduced. Clinical included. (PR: NUR 220)

235 Maternal-Child Nursing. 6 hrs. 4 theory-2 clinical. (ASN only)
Focus is on the nursing role utilized in promoting health and caring for the child bearing family and pediatric clients. Clinical included. (PR: PSY 311, NUR 220)

120 Health Alterations III. 6 hrs. 4 theory-2 clinical. (ASN only)
Focus is on nursing care of adult clients with health alterations of specific physiological systems. (PR: NUR 230)

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.

305 Concepts of Professional Nursing. 4 hrs.
Emphasizes concepts and processes essential to professional nursing practice. Philosophical and theoretical foundations of nursing are examined. Focus is on professional role and role transition. (PR: Permission)

317 Family Nursing Practicum. 2 hrs.
Practice for family nursing with emphasis on health promotion and health protection. Required only for R.N. Option students. (PR: Permission)

318 Family Nursing. 3 hrs.
Focus is on family nursing as it related to human responses. Emphasis is on factors influencing family health promotion and health protection. Included is the impact of chronic illness on families. (PR: Permission)

319 Nursing Assessment of Individuals II. 4 hrs.
Development of skills in taking health history and performing physical examination of clients throughout the life span. Practicum included. (PR: Permission)

321 Nursing and Human Responses I. 5 hrs.
Focus of nursing is on the diagnosis and treatment of human responses to changes that occur in the expanding family. Practicum included. (PR: Permission)

322 Nursing and Human Responses II. 5 hrs.
Focus is upon nursing care of clients of all ages in relation to human responses to psychosocial and chronic illness. Practicum included. (PR: Permission)

323 Nursing and Human Responses III. 5 hrs.
Focus is on nursing care of clients of all ages responding to common health problems. Practicum included. (PR: Permission)

324 Nursing and Human Responses IV. 5 hrs.
Focus is on nursing care of clients of all ages responding to potential and actual complex alterations in health in relation to specific body systems. Practicum included. (PR: Permission)

325 Nursing and Human Responses V. 5 hrs.
Focus is upon nursing care of clients of all ages responding to potential and actual complex alterations in health in relation to specific body systems. Practicum included. (PR: Permission)

400 Transcultural Health Care. 3 hrs.
Focus is on health care practices and beliefs in a variety of cultures. Political, economic, and geographic factors affecting global health care are addressed. Open to non-majors. (PR: SOC 200 or ANT 201)

403 Nursing Management. 3 hrs.
Focuses on the analysis of roles and functions of the professional nurse in first level management. Synthesis of concepts of leadership and related theories with nursing management included. (PR: Permission)

409 Nursing Research. 3 hrs.
Focuses on the research process and methodology. Development of critical thinking and decision making skills needed to analyze and evaluate research findings for application to nursing included. (PR: Permission)

421 Nursing and Human Responses VI. 5 hrs.
Focus is upon the public health principles and nursing practice with opportunity to provide health promotion for clients at risk and long term care for individuals and families in the home. (PR: Permission)

422 Role Synthesis Practicum. 5 hrs.
Focus is on leadership activities related to the roles of the professional nurse: provider of care, coordinator of care, and member of the profession. Practicum included. Capstone experience (PR: Permission)

423 Current Issues in Professional Nursing. 3 hrs. (3 credits theory)
Focus is on the political, legal, and ethical issues and their impact on nursing practice. (PR: Permission)
424 Pharmacology for Nurses. 3 hrs.
Focus on the role of the nurse in drug therapy. Specific drug classifications and prototypical drugs, their actions, effects and nursing implications are described in length. (PR: Permission)

428 Rural Health Care. 1-6 hrs.
Practicum in providing health care to clients in rural underserved setting. Community assessment and multidisciplinary experiences included. Focus is on activities related to roles of the professional nurse. (PR: Permission)

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
Study of topics not available in other courses.

485-488 Independent Study. 1-4; 1-4; 1-4 hrs.

495H-496H Readings for Honors in Nursing. 2-4; 2-4 hrs.
Open only to nursing majors of outstanding ability. By permission of the Dean. See Honors Courses

PARK RESOURCES AND LEISURE SERVICES (PLS)

100 Leisure in Your Life. 3 hrs.
An elective course, for non-park and recreation majors, designed to explore contemporary leisure values and the impact of leisure on American culture. (May not substitute for PLS 101)

101 Introduction to Parks and Leisure Services. 3 hrs.
An orientation to the profession emphasizing history, trends, concepts, and relationship to other fields. This course is prerequisite to all other PLS courses.

120 Introduction to Therapeutic Recreation. 3 hrs.
Introduction to the therapeutic recreation profession and its services which are designed to serve the ill, disabled, aged, blind and mentally handicapped.

150 Basic Bass Fishing Techniques. 1 hr.
An activity course designed to teach basic skills in bass fishing including equipment, identification of bass species, location, techniques, and technology.

152 Basic Fly Fishing Techniques. 1 hr.
An activity course designed to teach the basic skills associated with fly fishing including equipment, flies, and techniques.

154 Basic Canoeing. 1 hr.
This course is designed to give the student the knowledge and skills essential to competent and safe canoeing in accordance with American Red Cross techniques and procedures.

156 Bicycling. 1 hr.
This course is designed to give the student basic knowledge and skills essential to safe and enjoyable bicycling.

158 Downhill Skiing. 1 hr.
An activity course designed to teach the basic skills of snow skiing using the proper ski equipment and ski techniques.

160 Introduction to Hiking & Camping. 1 hr.
An introductory activity course developed to teach beginning skills necessary for involvement in hiking and camping trips.

201 Recreational Activities. 3 hrs.
Introduces the student to a variety of recreational activities typically utilized in recreation settings.

210 Recreation Programming and Leadership. 3 hrs.
A study of the fundamental principles of planning and the techniques of implementing these programs.

220 Therapeutic Recreation Program Planning. 3 hrs.
Designed to develop program planning and supervision of leisure activities for individuals with disabling conditions. (PR: PLS 120 or permission)

230 Park Management and Operation. 3 hrs.
Origin and conceptual development of parks, the basic study of both management and operation practices, and the management of physical park resources.

231 Nature Study. 3 hrs.
Designed to provide training in the planning and delivery of nature programs and activities offered in a variety of agencies and organizations.

270 Practicum. 2 hrs.
Scheduled in conjunction with PLS 210 to provide the student with program planning and leadership with leisure service organizations in the community. (CR: PLS 210)

271 Therapeutic Recreation Practicum. 2 hrs.
Scheduled in conjunction with PLS 220 to provide the student with programming experience for the handicapped. (CR: PLS 220)

280-283 Special Topics. 1-4; 1-4; 1-4 hrs.
301 Outdoor Recreation. 3 hrs.
Organization, administration and delivery of outdoor recreation activities and resources. Emphasis upon federal, state, and local government programs and areas.

320 Recreational Sports and Campus Recreation Management. 3 hrs.
This course will deal with the fields of recreational sports and campus recreation management. It will present the foundations of both fields, the development, implementation and trends in today's programs.

330 Wildland Recreation Management. 3 hrs.
A systematic approach to the management of back country, primitive, and wilderness areas.

350 Outdoor Adventure Training. 3 hrs.
The purpose of this course is to offer students an experiential learning environment by participating in an outdoor ropes course, where a series of trust-oriented and challenging activities will enhance a group's cohesiveness and ability to work together. Leadership training in every aspect of the course will also be taught.

400 Leisure and Aging. 3 hrs.
The purpose of this course is to present an overview of the field of leisure services for the elderly. It examines the research, theories, and trends related to leisure for the elderly and presents a wellness model to apply to all delivery settings.

401 Administration of Parks and Recreation. 3 hrs.
Considers administrative practice and various organizational structures. Includes administrative processes, supervision of personnel, budgeting and public relations.

402 Assessment and Evaluation in Recreation and Leisure Services. 3 hrs.
Theoretical and practical approach to evaluation as applied to recreation and leisure services. Emphasis will be upon developing sound assessment and evaluation methodology applicable to recreation and leisure studies. (PLS 101)

410 Recreation Area and Facility Maintenance. 4 hrs.
A study of the knowledge and skills necessary to supervise and administer the general development and maintenance of park and recreation areas and facilities.

411 Recreation Areas and Facilities. 3 hrs.
Basic considerations in the planning and design of recreational and sport areas, facilities, and structures including associated amenities.

421 Recreation for Special Populations. 3 hrs.
A study of the use of recreation activities with disabled persons. Techniques in programming and adaptation to meet the leisure needs of special groups in today's society. (PR: PLS 120 or permission)

422 Therapeutic Recreation in Institutional Settings. 3 hrs.
Designed to acquaint students with the role and practice of therapeutic recreation in treatment centers. (PR: PLS 120 or permission)

430 Environmental Interpretation. 4 hrs.
Principles and techniques of environmental interpretation as practiced in federal, state and private agencies. 3 lec.-2 lab.

431 Forest Recreation Planning. 4 hrs.
A forest recreation planning course utilizing the functional planning approach based upon demand and site capability analysis. 3 lec.-2 lab.

440 Off-highway Vehicle Recreation in America. 3 hrs.
A course designed to integrate OHV recreation concepts, experiences, research trends, supply and demand, and management issues.

441 Planning for Off-Highway Vehicle Recreation. 3 hrs.

480-483 Special Topics in Recreation. 1-4; 1-4; 1-4; 1-4 hrs.
(PR: By permission of the division head)

485-488 Independent Study. 1-4; 1-4; 1-4 hrs.

490 Park and Recreation Internship. 12 hrs., S.
A supervised, 40-hour per week, 12-week internship in which the student works with park and recreation agencies. (PR: Senior standing, not more than 18 hrs. remaining before graduation, and minimum 2.0 overall Grade Point Average)

PHILOSOPHY (PHL)

200 Introduction to Philosophy: Ancient Period. 3 hrs. I, II, S.
The origins of philosophical activity among the Greeks by means of a selective sounding of several major thinkers.

200H Introduction to Philosophy: Ancient Period. 3 hrs. Honors
A detailed consideration of selected texts from Ancient philosophy, such as the pre-Socratics, Plato, Aristotle, the Stoics, the Epicureans, the Academic Skeptics, and the neo-Platonists.
201 Introduction to Philosophy: Modern Period. 3 hrs. I, II, S.
Questions and answers concerning the nature of existence and human values and how we come to know them.

250 Orientation in Humanities. 3 hrs. I, II.
An interdisciplinary course to introduce students to the elements of a humanistic education. (Same as Classical Studies 250 and Religious Studies 250; PR or CR: English 101)

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
Group or individual study of areas demanding further study of a more specialized depth.

302 Applied Ethics. 3 hrs.
The application of basic ethical theories to contemporary moral issues drawn from such fields as medicine, business and the environment.

303 Ethics. 3 hrs.
A critical study of diverse moral norms, ideals and systems in theory and practice.

304 Logic and Interpretation. 3 hrs. I, II.
Theory and practice of valid principles of thinking, including developing the skills of justifying diverse types of belief and evaluating reasons for conflicting standpoints (for example, racial, gender, and ethnic differences).

306 Philosophy of Art. 3 hrs.
Examination of the qualities involved in the appreciation of beauty which serve as standards of taste.

315 American Philosophy. 3 hrs.
Great American thinkers, including thinkers such as Emerson (transcendentalism), Peirce, James, Dewey, and Rorty (pragmatism), Royce (idealism), Quine (analytic philosophy), and de Man (post-structuralism).

320 Comparative Philosophy. 3 hrs.
The relations of the world's philosophies to the basic cultural and religious traditions of the world and to the development of the world community.

321 Current Philosophical Trends. 3 hrs.
Selected reading in contemporary thought embracing such movements as realism, Marxism, post-structuralism, deconstruction, postmodernism.

330 Philosophy of Sex. 3 hrs.
Introduction to some of the basic authors, texts, and themes in this branch of philosophy beginning with Plato's Symposium.

340 Philosophy of Sexual Orientation and Gender. 3 hrs.
An introduction to the philosophy of sexual orientation and its relation to gender, with a special focus on issues of knowledge and politics.

350 Basic Humanities. 3 hrs.
A structured interdisciplinary study offered by the departments of Classical Studies, Philosophy and Religious Studies in the foundations of Western thought: its myth, literature, religion, philosophy, art. (Same as Classical Studies 350 and Religious Studies 350)

353 Philosophy of Science. 3 hrs.
Reflections on crucial concepts of modern science relevant to philosophical issues in interpreting human beings and the universe; special attention given to epistemological and other problems of mathematics and physical and social sciences. (PR: Three hours of philosophy)

363 Philosophy of Feminism. 3 hrs.
An introduction to contemporary feminist theory including discussion of current gender-related issues.

400 Ancient Philosophy. 3 hrs.
Advanced study of major philosophers drawn from the ancient Greek and Roman period. (PR: PHL 200)

401 Modern Philosophy. 3 hrs.
Advanced study of major movements in philosophy from the 17th century on, movements such as rationalism, empiricism, idealism, and existentialism. (PR: PHL 201, or any 300 level PHL course)

420 Metaphysics. 3 hrs.
Advanced study of the most basic nature of reality. (PR: 3 hrs. of philosophy)

421 Philosophy of Knowledge. 3 hrs.
Advanced study of the nature and possibility of knowledge. (PR: 3 hrs. of philosophy)

451 Philosophy of History and Culture. 3 hrs.
Ancient and modern theories of the meaning and consequence of history and culture. (PR: 3 hrs of philosophy)

455 Philosophy of Religion. 3 hrs.
Theories of the nature and functions of religion, including the meaning of religious language and the problems of belief. (PR: Six hours between philosophy and religious studies)
465  Existential Philosophy. 3 hrs.
A study of existential philosophers from Kierkegaard to Heidegger, Sartre and beyond.

480-483  Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
Shared study and research on a special topic as announced. (PR: Permission of the chairman)

485-488  Independent Study. 1-4; 1-4; 1-4 hrs.

495H-496H  Readings for Honors in Philosophy. 4; 4 hrs.
Open only to philosophy majors of outstanding ability. See Honors Courses.

498  Directed Readings in Philosophy. 3 hrs. I or II.
Advanced research adaptable to the needs of the individual student. (PR: Permission of department chairman)

499  Humanities Seminar. 3 hrs.
Designed for majors as the culminating interdisciplinary study in the Basic Humanities program. Capstone experience (Same as Classical Studies 499 and Religious Studies 499).

PHYSICAL EDUCATION (PE)

100  Beginning Swimming. 1 hr. I, II.
PR: Non-swimming classification or instructor's permission

113  Basketball. 1 hr. I, II.
Theory, rules and techniques of basketball.

114  Beginning Archery. 1 hr.
Theory, rules and fundamentals of skills of archery.

115  Body Conditioning with Weights. 1 hr. I, II, S.
An introduction to weight training principles and techniques which can be utilized by both men and women to devise their own individual body conditioning programs.

118  Development of Physical Education and Sport in the United States. 3 hrs. I, II.
A survey of the development of sport forms and physical education curricula from colonial America through the present day.

120  Self Defense. 1 hr.

121  Taekwondo. 2 hrs.
Techniques and skills are taught with emphasis on participation.

125  Beginning Gymnastics 1 hr.

127  Aerobics - Personal Fitness. 1 hr. I, II, S.
A course designed to provide the information necessary for the development of an individualized aerobic fitness program.

132  Beginning Volleyball. 1 hr. I, II, S.

133  Beginning Softball. 1 hr. I, II, S.
Techniques and skills of softball taught with emphasis on participation in the activity.

140  Beginning Tennis. 1 hr. I, II, S.

141  Beginning Golf. 1 hr. I, II, S.

142  Beginning Badminton. 1 hr. I, II.

145  Beginning Bowling. 1 hr. I, II.

147  Beginning Soccer. 1 hr. I.
Instruction in techniques and skills of beginning soccer with strategy provided through class participation.

155  Beginning Folk Dance. 1 hr. I, II.

156  Beginning Square Dance. 1 hr. I, II.

159  Beginning Social Dance. 1 hr.
The analytical and practical study of the skills necessary to perform contemporary and traditional ballroom dance.

170  Beginning Racquetball. 1 hr. I, II.

171  Beginning Handball. 1 hr. I, II.
Theory, rules and techniques of handball.

201  Scientific Foundations for Physical Education I. 3 hrs. I, II.
Instruction and laboratory experiences in basic anatomy, physiology and bio-mechanics as applied in human movement.

202  Scientific Foundation of Physical Education II. 3 hrs. II.
Advanced instruction and laboratory experiences in Anatomy, Physiology and Biomechanics as applied in human movement.

205  Intermediate Swimming. 1 hr. I, II.
Theory and practice of fundamental strokes.

210  Intermediate Archery and Bow Hunting. 1 hr.
Theory, rules and techniques of intermediate archery and bow hunting.
Physical Fitness Leadership. 2 hrs. I, II.
The student will learn skills needed to lead exercise classes involving aerobic, resistive, and flexibility exercises. (PR: PE 201)

Survey and study of the basic techniques and practices of athletic training. (PR: PE 201, HE 222)

A study of the possible interrelationship between physical activity and various sociocultural factors.

Track and Field. 1 hr.
Instruction and practice of fundamental skills in various track and field events.

Intermediate Volleyball. 1 hr. I, II.
Practice of intermediate volleyball techniques with additional insight into offensive and defensive techniques used in competitive volleyball.

To prepare students to teach gymnastics and tumbling and to organize gymnastics programs by providing them with adequate skills and knowledge. (PR: PE 125)

Practice of intermediate softball skills with emphasis on offensive and defensive techniques and strategies.

Intermediate Tennis. 1 hr. I, II.
Intermediate Golf. 1 hr. I, II.
Intermediate Badminton. 1 hr. I, II.
Intermediate Basketball. 1 hr. I, II.
Practice of intermediate basketball skills with emphasis on offensive and defensive techniques and strategies.

Intermediate Bowling. 1 hr. II.
Intermediate Soccer. 1 hr. II.
Instruction in advanced techniques, skills and strategies in soccer.

Athletic Training Clinical Experience: Level I., CR/NC
To develop beginning evaluation and treatment skills of the student under the direction of NATA certified Athletic Trainer. Requires 200 clinical hours. (CR: Admission to Athletic Training Program; at least a second semester sophomore; concurrently registered for PE 348 or PE 422)

Continuation of skills in Folk Dance with emphasis on intermediate dances and techniques.

Continuation of skills in Square Dance with emphasis on intermediate dances and techniques.

Emphasis on stylization and more advanced skills involved in the performance of ballroom dance.

Intermediate Racquetball. 1 hr.

Special Topics. 1-4; 1-4; 1-4; 1-4 hrs. (PR: Permission of Division Person)

Practicum in Sports Management and Marketing. 3 hrs. II.
A minimum of 150 hours in the athletic department and classroom setting emphasizing a variety of work experiences and exploration of vocational opportunities in Sports Management and Marketing. (PR: 9 hours in HPER)

Adult Fitness Programs in Business and Industry. 2 hrs. I.
Basic course dealing with adult fitness programs in business and industry. Consideration will be given to types of programs and professional opportunities.

Recreational Aquatics. 1 hr. II.
The development of skills in water-related activities such as scuba, skin diving, springboard diving, and other aquatic activities of recreational nature.

Teaching Individual Sports. 2 hrs. I.
Study and application of the principles and techniques of teaching individual sports skills in grade 5-12. (PR: Completion of Physical Education Activity Competencies)

Teaching Team Sports. 2 hrs. II.
Study and application of the principles and techniques of teaching team sports skills in grades 5-12. (PR: Completion of Physical Education Activity Competencies)

Physical Education in Elementary Schools. 3 hrs. I, II, S.
A practical approach designed to aid the elementary teacher in teaching methods and techniques needed for the teaching of elementary physical education. (PR: Majors, PE 260 and 350)

Kinesiology. 3 hrs. I, II.
Applied anatomy of the human musculature and biomechanics in relation to physical activity. (PR: PE 201)
345 Physiology of Exercise. 3 hrs. I, II.
Analysis of physiological changes which occur in the body during exercise. (PR: PE 201 or BSC 227 and 228)

350 Rhythms and Movement for Children. 3 hrs. II.
Provides elementary physical education specialist with an overview of rhythms and movement activities for elementary school children.

360 Athletic Training Clinical Experience: Level II. CR/NC
To develop evaluation and treatment skills of the student under the direction of NATA certified Athletic Trainer. Requires 200 clinical hours. (CR: Admission to Athletic Training Program; at least a first semester junior; concurrently registered for PE 345, PE 321, HE 220 or HE 221; completion of Clinical Level I)

361 Athletic Training Clinical Experience: Level III. CR/NC
To develop evaluation and treatment skills of the student under the direction of NATA certified Athletic Trainer. Requires 200 clinical hours. (CR: Admission to Athletic Training Program; at least a second semester junior; concurrently registered for PE 348 or PE 422)

365 Tests and Measurements. 3 hrs. II.
A study of the nature and purpose of measurements and evaluation in the field of physical education. Evaluation of available tests and practice in administration of tests.

369 Nature and Bases of Motor Skills. 3 hrs.
A study of the factors contributing to the acquisition, improvement and retention of gross motor skills. Stages of motor development and learning will be examined from a behavioral approach.

375 Evaluating Fitness. 3 hrs. II.
Application of neuromuscular, physiological and psychological knowledges to the appraisal of individual fitness. Consideration will be given to procedures and practices applicable to individuals varying in age, physique, and initial fitness levels. (PR: PE 345)

385 Development and Management of Adult Fitness Programs. 3 hrs. I.
Consider organizational structures, record keeping, budgeting, and liability factors. (PR: PE 345, 375)

401 Ethics In Sport. 3 hrs.
Philosophical and historical background to the development of values in contemporary society and examination of how these are manifested in the sports world.

403 Advanced Swimming and Life Saving. 1 hr. I, II.
Instruction in several swimming strokes and techniques to develop advanced levels of ability. Instruction and tests for American Red Cross Senior Life Saving Certification.

404 Water Safety Instruction. 1 hr. I, II.
Materials and methods of teaching American Red Cross Safety Course. Upon satisfactory completion, Water Safety Instructor's Certificate issued. (PR: PE 403 and Senior Life Saving Certificate)

410 Principles, Organization and Administration of Physical Education and Athletics. 3 hrs. I.
Principles of health and physical education, procedures in the organization and administration of the physical education program, including purchase, care and use of equipment.

416 Planning and Developing HPERD and Athletics Facilities. 3 hrs.
A course designed to familiarize students with the basic concepts of facility planning and construction. Current trends and innovative designs are reviewed. 2 lec-2 lab.

422 Prevention, Care and Treatment of Athletics Injuries. 3 hrs. II.
This course is designed to prepare the athlete for competition, for prevention and protection from accidents, and for examination, care, and rehabilitation following injury. (PR: PE 215 and 348)

425 Sport in Film. 3 hrs.
The relationship between sport and feature motion pictures are analyzed in the historical, social and cultural contexts. (PR: Junior or senior standing)

426 Methods of Coaching Basketball. 2 hrs.
Different styles and systems of playing, methods of selecting and teaching players, scouting techniques and a scientific analysis of the player and the methods of playing basketball.

427 Methods of Coaching Football. 2 hrs.
Different styles and systems of playing, methods of selecting and teaching players, scouting techniques and a scientific analysis of the player and the methods of playing football.

430 Sport Law. 3 hrs.
Study of the basic principles of the legal system as they operate in the environment of American sport. (PR: Junior or Senior standing)

433 Methods of Coaching Track and Field. 2 hrs.
Methods and coaching techniques in the fundamentals of track and field.

435 Adapted Physical Education and Mainstreaming. 3 hrs.
Theory of remedial exercise and individualizing of physical activities to meet the needs of the physically handicapped. (PR: PE 201)
448 Therapeutic Modalities in Sports Medicine. 4 hrs.
Investigation and analysis of therapeutic modalities including indications, contraindications, biophysics and procedures. Includes a lab. (PR: PE 201, PE 215 and permission)

449 Therapeutic Exercise in Sports Medicine. 4 hrs.
Investigation and analysis of current trends in rehabilitation exercise, muscle testing and evaluation. Includes a lab. (PR: PE 201, 215, and permission)

460 Athletic Training Clinical Experience: Level IV. CR/NC
To develop advanced evaluation and treatment skills of the student under the direction of NATA certified Athletic Trainer. Required 200 clinical hours. (CR: Admission to Athletic Training Program; at least a first semester senior; concurrently registered for PE 345, PE 321, HE 220, or HE 221)

469 Curriculum Development in Physical Education. 3 hrs.
A study of principles, objectives and procedures in curriculum construction in the elementary and secondary school programs. Typical programs studied and evaluated. (PR: Completion of Physical Education activity competencies)

470 Practicum. 4 hrs.
Problem solving, geobiophysical modeling, and proposal development techniques in the physical sciences. (PR: PS 411 or permissions)

475 Seminar in Sports Management and Marketing. 3 hrs. II.
Course is designed to provide students with an overview to all aspects involved in the Sports Management and Marketing field through classroom lectures, guest speakers, and field trips. (PR: Junior standing in HPER)

476 Theoretical and Practical Aspects of Coaching. 3 hrs.
An in-depth study of the principles and problems of coaching.

478 Energy Sources, Body Composition and Performance. 3 hrs.
Consideration of metabolic requirements for various types of physical activity as well as the impact that physical activity and training can have on body composition and performance. (PR: PE 345)

479 Trends in Athletic Training. 3 hrs. II.
To provide an in-depth analysis of current trends with regard to administration, liability, and insurance. Cover current standards in surgery, rehabilitation, and evaluation of sport related injuries.

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
(PR: HPER majors only, with permission of Division chairperson)

485-488 Independent Study. 1-4; 1-4; 1-4 hrs.

490 Internship: Paraprofessional Student Experience. 3-8 hrs.
Supervised clinical experience in an approved setting. Capstone experience.

495H-496H Readings for Honors in Physical Education and Sport. 1-3; 1-3 hrs.

PHYSICAL SCIENCE (PS)

109 General Physical Science. 3 hrs. I, S.
The course covers the basic principles and concepts of the universe including energy, and its various forms. Force, motion, electricity, magnetism, the wave theory of light and sound and astronomy are also studied. (PR: MTH 121 or 123. CR: PS 109L lab.) 3 lec.

109L General Physical Science Laboratory. 1 hr. I, S.
A laboratory course with experiments related to PS 109. (CR: PS 109)

110 General Physical Science. 3 hrs. I, S.
Course covers the basic principles of chemistry, applications of chemistry, and an introduction to earth science. Atomic theory, chemical reactions and structure, everyday chemicals, and basic concepts of geology are studied. (PR: MTH 121 or 123. CR: PS 110L lab.)

110L General Physical Science Laboratory. 1 hr. II, S.
A lab course with experiments related to PS 110. (CR: PS 110)

210 Environment Science-Physical Aspects. 3 hrs.
A survey of environmental science from the perspective of the Physical Sciences; natural resource development and use, especially energy sources, pollution and waste problems. Lab activities and field trips included

280-283 Special Topics. 1-4; 1-4; 1-4 hrs.

400 Astronomy. 3 hrs. I, II., S.
A study of the stars, planets and galaxies, planetary motion, cosmology, cosmography. Designed to assist teachers and others to develop an interest in astronomy. (PR: PHY 101 or 203 or 213; or PS 109; or PS 400 concurrent)

400L Astronomy Laboratory. 1 hr. I, II, S.
A computational and observational laboratory. Fundamental observations in astronomy and their interpretation through physical laws. Quantitative discussion of orbital motion, time, telescopes, solar system, stars, and galaxies. (CR: PS 400)
381 Development of Scientific Thought. 3 hrs. Offered on demand. A study of the people and ideas which have influenced science: the philosophy of their periods; the economic conditions leading to scientific advancement and the works of the foremost scientists in this field. (PR: A total of twelve hours in Physical Science, Physics, and Chemistry courses)

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.

485-488 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.

PHYSICS (PHY)

101 Conceptual Physics. 3 hrs. I, S.
Introduces nonscience majors to applications of physics in life. Emphasizes conceptual understanding of basic principles in classical and modern physics. Recommended for science students with no high school physics. 3 lec. (PR: MTH 121 or 123 or any math higher than MTH 123. CR: PHY 101L)

101L Conceptual Physics Lab. 1 hr. I, II, S.
A laboratory course designed to include the principles and applications of physics that are introduced in Physics 101. (CR: PHY 101) 2 lab.

201-203 General Physics. 3 hrs. I, II, S.
A course in general physics for all science majors with the exception of physics and engineering majors. 3 lec. (PR: MTH 127 or 130 and MTH 122 or 132; CR: PHY 202 and 204 for 201 and 203, respectively; 201 must precede 203)

202-204 General Physics Laboratory. 1 hr. I, II, S.
Required of all students taking Physics 201-203, unless exempt by special permission. 2 lab.

211-213 Principles of Physics. 4; 4 hrs. I, II.
A course in the basic principles of physics for mathematics, and engineering majors. 4 lec. (PR: MTH 229. CR: MTH 230)

212-214 Laboratory Methods in Physics. 1; 1 hr.
A laboratory course to accompany Physics 211-213. 3 lab.

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.

300 Electricity and Magnetism. 3 hrs. I. (Alternate years)
A course including the study of electrostatics, magnetostatics, electromagnetic induction, introduction to Maxwell’s equations and electromagnetic waves. 3 lec. (PR: PHY 203 or 213 and MTH 231)

302 Electricity and Magnetism. 3 hrs. II. (Alternate years)
A study of Maxwell’s equations and electromagnetic waves, radiation theory, optical phenomena, and electrodynamics. 3 lec. (PR: PHY 300)

304 Optics. 3 hrs. II. (Alternate years)
An intermediate course in geometrical and physical optics. 3 lec. (PR: PHY 203 or 213) See 405.

308 Thermal Physics. 3 hrs. I. (Alternate years)
A study of thermodynamics, kinetic theory of gases, and an introduction to statistical mechanics 3 lec. (PR: PHY 203 or 213 and MTH 231)

314 Electronic Physics. 3 hrs. II. (Alternate years)
A study of transistors, integrated circuits and their associated circuits. 3 lec. (PR: PHY 203 or 213 and 204) See PHY 415.

320 Introductory Modern Physics. 3 hrs. I.
An introductory study of atomic and molecular theories, relativity, quantum theory, and nuclear physics. 3 lec. (PR: PHY 203 or 213 and MTH 140 or MTH 230) See 421

330 Mechanics. 3 hrs. I. (Alternate years)
An intermediate study of the fundamental principles of statics of particles and rigid bodies, momentum and energy, dynamics of particles, harmonic oscillations, and wave motion. 3 lec. (PR: PHY 203 or 213 and MTH 231)

331 Mechanics. 3 hrs. II. (Alternate years)
A study of rigid-body dynamics, central force motion, accelerated systems, and an introduction to the equations of Lagrange and Hamilton. 3 lec. (PR: PHY 330 and MTH 335)

350 Biomedical Physics. 4 hrs. II.
A one-semester survey course in biomedical applications of physical principles designed for students in premedical, paramedical, and life sciences. 3 lec-2 lab. (PR: PHY 203 or 213 and 204, or consent of instructor)

405 Optics Laboratory. 2 hrs.
A course in optical experiments encompassing geometrical and physical optics. This course is to be taken with Physics 304.

410 Physical Principles of Remote Sensing with Applications. 4 hrs.
A study of the physical systems for collecting remotely sensed data. Statistical/spatial analysis and modeling using image processing/geographic information/spatial analysis computer software systems with earth resource applications. (PR: PHY 203 and 204; MTH 225 or permission)
Digital Image Processing and Computer Simulation Modeling. 4 hrs.  
A study of image processing/geographic information and spatial analysis hardware/software systems, concurrent and parallel image processing modeling scenarios utilizing geobiophysical data for computer simulation modeling and practicum. (PR: PHY 410 or permission)

Atmospheric Physics with Computer Simulation Modeling. 3 hrs.  
A general introduction to the earth’s atmosphere. The physical and chemical dynamic behavior of the earth’s atmosphere will be analyzed by comparing computer simulated profiles with in situ measurements. (PR: Permission of instructor)

Electronics Laboratory. 2 hrs.  
A course in laboratory measurements encompassing transistors, integrated circuits, and their associated circuits. This course is to be taken with Physics 314.

Modern Physics Laboratory. 2 hrs.  
Laboratory exercises on modern physics topics encompassing both experiments of historic significance and current applications. To be taken with Physics 320, or equivalent.

Applied Electronics and Instrumentation. 4 hrs. (Offered on demand)  
A course applying electronic principles to instrumentation with emphasis on the medical and life sciences. The functions of instruments will be stressed. 3 lec-2 lab. (PR: PHY 203 and 204, or consent of instructor)

Seminar. 1 hr. each I, II.  
One semester required of physics majors.

Optics with Life Science and Medical Applications. 4 hrs. (Offered on demand)  
A course emphasizing the application of optical principles in instruments dealing with biological and medical measurements. 3 lec-2 lab. (PR: PHY 203 and 204, or consent of instructor)

Quantum Mechanics. 3 hrs. (Alternate years)  
A study of waves and particles, the Schroedinger and Heisenberg formulations, particles in potential fields, scattering and perturbation theories, and applications to atomic and nuclear structure. 3 lec. (PR: MTH 231 and PHY 331)

Mathematical Methods of Physics. 3 hrs. (Offered on demand).  
An introduction to theory of orthogonal functions, curvilinear coordinate systems, vector and tensor fields, and their applications in physics. Problems are drawn from different areas of physics. 3 lec. (PR: PHY 203 or 213 and MTH 231 or permission)

Mechanics for Teachers. 4 hrs.  
An in-depth study of mechanics for education majors specializing in Physics with emphasis on problem-solving techniques, demonstrations, experiments and computer applications. The course also examines recent advances in physics education. (PR: PHY 203 or 213, MTH 122, MTH 140)

Radiation Physics in Life Sciences. 4 hrs. II. (Alternate years)  
A course in radiation physics with emphasis on applications in the medical sciences. Designed for students interested in the life sciences. A field trip to the University of Michigan nuclear reactor is an integral part of the course. 3 lec-2 lab. (PR: PHY 203 or PHY 213 and 204, or consent of instructor)

Nuclear Physics and Chemistry. 3 hrs. II. (Alternate years)  
An introduction to the description of nucleons, electric and magnetic properties of a nucleus, nuclear energy levels, nuclear reactions including neutron activation, interaction of particles with matter, and nuclear forces. 3 lec. (PR: PHY 320 and MTH 231 or consent of instructor.) See 463.

Nuclear Physics Laboratory. 2 hrs.  
Laboratory techniques for the measurement of nuclear properties, theory and characteristics of various detectors, statistics of counting, and energy determination of nuclear particles and radiation. This course is to be taken with PHY 462. A field trip to the University of Michigan Nuclear Reactor is an integral part of the course.

Practicum. 4 hrs.  
Problem solving, geobiophysical modeling, and proposal development techniques in the physical sciences. (PR: PS 411, BSC 411, IS 421, or permission)

Special Topics. 1-4; 1-4; 1-4; 1-4 hrs. I, II, S.  
By permission of department chairman.

Capstone. 1-2 hrs.  
To give a capstone experience to physics majors in their junior and senior years by applying the principles of physics to the solution of real life problems.

Capstone. 1-2 hrs.  
To give a capstone experience to physics majors in their junior or senior years by applying the principles of physics to the solution of real life problems. (PR: PHY 491)
POLITICAL SCIENCE (PSC)

104 American National Government and Politics. 3 hrs.
The American federal government system, with emphasis on constitutionalism, governmental structure, and the political process.

105 Fundamentals of Politics. 3 hrs.
General survey introducing the study of politics, its major concepts, processes, institutions, and fields of concern, with attention to the place of political science in the larger context of social science inquiry.

200 Models of Politics. 1-3 hrs.
Introduction to the use of theory in political science. Offered in one-credit (5-week) modules. Module I is prerequisite to all others. Designed to assist in the development of analytic and synthetic skills.

202 American State Government and Politics. 3 hrs.
Study of the institutions, processes, and significance of this level of political life in America.

207 Comparative Politics. 3 hrs.
Introduction to the field of comparative politics, stressing comparative concepts and approaches to the cross-national study of politics and government, with examination of political systems, ranging from democratic to non-democratic types.

211 Scope and Method in Political Science. 3 hrs.
Study of the development of political science as a distinct science and discipline, and of the fundamentals of research in political science, such as bibliographic techniques, use of scientific method, textual and case-study approaches and data analysis. Offered only in Spring semester.

233 Introduction to Public Policy. 3 hrs.
Basic concepts and skills in the analysis of public policy problems. Use of policy as an instrument for solving problems. Application to selected fields, for example, environmental policy and urban policy.

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
To offer a course on some special topic not adequately treated in the regular course offerings.

301 Urban Government and Politics. 3 hrs.
Political systems in American cities and metropolitan areas.

303 American Political Parties. 3 hrs.
Examination of the American party system, its origins, development and characteristics. Emphasis also on party organization, political ambition and recruitment, party impact on public policy, campaigns, elections, and voting behavior.

307 Public Opinion and Propaganda. 3 hrs.
Study of the processes by which individuals acquire politically relevant information, attitudes, values, and opinions; the consequences of these processes for political stability and conflict; and the linkage of mass opinions to elite behavior.

309 Fundamentals of International Relations. 3 hrs.
Survey of major concepts and approaches in the study of international relations and analysis of processes, institutions, strategies, and trends in world politics.

311 Topics in Public Policy. 3 hrs.
A course devoted to a special topic of interest in the policy field, such as energy, health care, transportation, environmental concerns, etc.

333 Introduction to Public Administration. 3 hrs.
Introduction to modern theories of administration; the relation of administration to the political system and process; and analysis of administrative organizations and functions, including planning, personnel, and finance.

376 Black Politics. 3 hrs.
Study emphasizing power structures in black communities, dissent and protest, problems and trends, and the uniqueness of black politics as compared with the politics of other ethnic groups.

381 The American Legislative Process. 3 hrs.
Structure and behavior of American national and state legislative systems; the impact of constituencies, parties, interest groups, interpersonal relations, and other factors on the legislative policy-making process; the role of the legislature as a subsystem in the larger political system; and problems and trends.

382 Student Legislative Program. 1 hr. II.
One week of intensive legislative observation designed to provide selected students an understanding of the organization and processes of the West Virginia legislature and its role in the making of public policy. (PR: Junior or senior standing, a Political Science course in American Government and permission)

383 The American Executive Process. 3 hrs.
Study of governmental executives in the American political system, with emphasis on the president, including analysis of constitutional status and powers, recruitment, administrative responsibilities, political and legislative leadership, accountability, and problems and trends.
405 International Organization. 3 hrs.
Study of world and regional organizations as reflections of world politics, as instruments of foreign policies, and as forces for change and order, with emphasis on their role as channels for management of cooperation and conflict.

406 International Politics. 3 hrs.
Study of major issues in world politics, with emphasis on theoretical approaches, problems of war and peace, and contemporary trends.

407 Asian Politics. 3 hrs.
Study of such nations as India, China, Japan, and Korea in the contemporary setting.

408 Middle Eastern Politics. 3 hrs.
Study of the Arab States and such nations as Israel, Iran, and Turkey in the contemporary setting.

409 Western Democratic Politics. 3 hrs.
Study of such nations as Canada and those of Western Europe, particularly Great Britain and France.

410 Eastern European Politics. 3 hrs.
Study of Eastern Europe.

411 Latin American Politics. 3 hrs.
Study of Latin American politics by sectors, such as landed elites, the military, the church, etc. Various styles of governance are considered. Case examples illustrate concepts discussed.

415 International Law. 3 hrs.
Study of theories, origins, sources, development, present state, and trends of international law as a factor in various aspects of international politics.

420 Current World and Regional Issues. 3 hrs.
An intensive study of specific world or regional problems, such as the politics of world hunger, the role of multinational corporations, imperialism, Third World Communist movements, etc.

421 American Political Thought. 3 hrs.
The study of the development and influence of American Political Thought with an emphasis on the linkage of ideas to political and economic forces.

422 African Political Systems. 3 hrs.
The study of political systems of selected countries, blocs, or regions.

423 American Foreign Policy. 3 hrs.
The study of descriptive, analytical, and normative aspects of United States foreign policy with emphasis on contemporary problems and issues.

424 Comparative Foreign Policy. 3 hrs.
Application of the comparative method to foreign policy decision-making and outputs. Comparisons within or between geographic regions.

425/525 Ancient and Medieval Political Thought. 3 hrs.
Selective study of classics of Western political theory from earliest times through the 15th century, such as that of Plato, Aristotle, the Romans, Augustine, and Aquinas.

426/526 Modern Political Thought. 3 hrs.
Selective study of classics of Western political theory from the 16th century through the 19th century, such as that of Machiavelli, Bodin, Hobbes, Locke, Rousseau, Hume, Burke, Mill, and Marx.

428 Islamic Political Ideas and Institutions. 3 hrs.
Study of Islamic political ideas, practices, and institutions and their impact on the rise and development of contemporary Islamic movements, organizations, and states.

429 The Politics of Conflict and Revolution. 3 hrs.
Study of major theories of conflict and revolution with emphasis on cross-national explanations and outcomes.

433 Public Administration and Policy Development, 3 hrs.
Examination of alternative theoretical approaches to the study of policy and administration and their implications for the use of policy to shape administrative practice.

436 The American Judiciary. 3 hrs.
Structure and behavior in American national and state judicial systems, including analysis of their decision making and policy making functions, their procedures and administration, and problems and trends.

440 Power in American Society. 3 hrs.
Examination of some of the major theoretical approaches — pluralistic, elitist, etc. — to the study of power. A major concern is the relationship between the distribution of political resources and the performance of political systems. Efforts to transform political systems are examined on the basis of cross-national research.

450 Administrative Law. 3 hrs.
A study of the basic legal framework of administrative organization, including the problems of administrative discretion, rule-making and adjudication, regulatory agencies, and administrative responsibility in the democratic state.

Courses of Instruction Marshall University
Public Personnel Administration. 3 hrs.
Survey of public personnel administration with particular attention to various facets of the merit system concept. Psychological and human relations aspects of the work situation and supervisor-subordinate interaction emphasized.

Governmental Budgetary Administration. 3 hrs.
Study of organization, administration, and accountability in the management of public funds, with emphasis on the political decision-making processes of budget formulation, presentation and execution.

Administrative Organization and Behavior. 3 hrs.
A study of the contributions of the behavioral sciences to the study of organizations with stress on such concepts as leadership, motivation, power conflict, organizational design and decision making.

Civil Rights and Liberties. 3 hrs.
The basic substantive and procedural elements of American constitutional liberties and civil rights with emphasis on historical development as influenced by social and political forces.

Urban Problems and Public Policy. 3 hrs.
Study of policy problems of metropolitan areas in terms of structures, alternatives, and outcomes.

Selected Topics. 1-4; 1-4; 1-4; 1-4 hrs.
To offer a course on some special topic which is not adequately treated in the regular course offerings.

Constitutional Law. 3 hrs.
Introduction to the principles of American constitutional law and analysis of constitutional issues, emphasizing leading Supreme Court cases.

Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.
These numbers are reserved for tutorials, directed and independent readings, directed and independent research, problem reports, etc.

Seminar in Public Service. 3 hrs.

Public Service Internship. 6 hrs.

Readings for Honors in Political Science. 2-4; 2-4; hrs. I, II.
Open only to political science majors of outstanding ability. Both courses must be taken to receive credit. See Honors Courses.

Capstone Experience. 3 hrs.
This course is designed to integrate political theory with politics by considering the relevance of political philosophy to contemporary political questions. Capstone Experience must be completed in the senior year. Offered only in Fall Semester

PSYCHOLOGY (PSY)

Careers in Psychology. 1 hr.
Prepares students to be successful undergraduate Psychology majors and introduces possible careers and educational requirements. Does not count toward hours in major required for graduation. (Graded CR/NC only)

General Psychology. 3 hrs.
Principles and methods in the scientific study of behavior.

General Psychology —Honors. 3 hrs.
For the superior student. (PR: ACT score of 26 or GPA of 3.2)

Psychology of Adjustment. 3 hrs.
Modes of personal and social adjustment; assessment and treatment techniques.

Elementary Behavioral Statistics. 3 hrs.
Orientation to the philosophy of science; survey of methods in behavior study; elementary statistics. (PR: MTH 121 or higher)

Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.

Social Psychology. 3 hrs.
Social determinants of individual behavior. (PR: PSY 201; 12 college credits at 100 level or higher)

Child Development. 3 hrs.
Psychological characteristics and personal and social problems of developmental periods. (PR: PSY 201; 12 college credits at 100 level or higher)

Adult Development. 3 hrs.
Study of the physiological, psychological, and social processes that occur with aging. (PR: PSY 201 or 311; 12 college credits at 100 level or higher)

Experimental Psychology. 3 hrs.
Methodology and research in psychology. (PR: PSY 223)

Sensation and Perception. 3 hrs.
Methodology and research in sensory and perceptual processes. (PR: PSY 223)
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>330</td>
<td>Human Sexual Behavior</td>
<td>3 hrs.</td>
<td>A psychological approach to the functioning, attitudes, varieties and development of human sexual behavior. (PR: PSY 201; 12 college credits at 100 level or higher)</td>
</tr>
<tr>
<td>350</td>
<td>Animal Behavior</td>
<td>3 hrs.</td>
<td>A comprehensive study of the behavior of non-human animals. (PR: Nine hours of Psychology)</td>
</tr>
<tr>
<td>360</td>
<td>Personality</td>
<td>3 hrs.</td>
<td>Personality structure, dynamics and development. (PR: PSY 201; 12 college credits at 100 level or higher)</td>
</tr>
<tr>
<td>370</td>
<td>Practicum in Child Psychology</td>
<td>3 hrs.</td>
<td>This course involves work and study in a day care center, including observation of cognitive and social development of children. (Graded CR/NC only; PR: PSY 311, 408; 12 college credits at 100 level or higher)</td>
</tr>
<tr>
<td>380</td>
<td>Introduction to Professional Psychology</td>
<td>3 hrs.</td>
<td>This course surveys the application of psychology to human problems in clinics, schools, consumer patterns, environmental matters, the legal system, health psychology, clinical neuropsychology and others. (PR: PSY 201; 12 college credits at 100 level or higher)</td>
</tr>
<tr>
<td>391</td>
<td>Psychology of Aggression</td>
<td>3 hrs.</td>
<td>A multifaceted study of aggressive behavior in humans and other animals. (PR: PSY 201, 302)</td>
</tr>
<tr>
<td>402</td>
<td>Advanced Social Psychology</td>
<td>3 hrs.</td>
<td>Advanced study of selected topics in social psychology. (PR: PSY 223, PSY 302 or consent of instructor)</td>
</tr>
<tr>
<td>403</td>
<td>Applied Social Psychology</td>
<td>3 hrs.</td>
<td>Examination of the applications of social psychological methods, theories, principles and research findings to the understanding or solution of social problems. (PR: PSY 302)</td>
</tr>
<tr>
<td>406</td>
<td>Psychometrics</td>
<td>3 hrs.</td>
<td>Mental test theory and applications. (PR: PSY 223)</td>
</tr>
<tr>
<td>408</td>
<td>Abnormal Psychology</td>
<td>3 hrs.</td>
<td>An overview of the theories, assessment techniques, and treatment of maladaptive behavior. (PR: PSY 201; 12 college credits at 100 level or higher)</td>
</tr>
<tr>
<td>411</td>
<td>Advanced Topics in Developmental Psychology</td>
<td>3 hrs.</td>
<td>This course will provide an advanced study of topics regarding change throughout the lifespan. Emphasis will be on understanding the interactions of biological, psychological, and social factors. (PR: PSY 311)</td>
</tr>
<tr>
<td>416</td>
<td>Psychology of Learning</td>
<td>3 hrs.</td>
<td>Critical study of the major theories of learning and the related research. (PR: PSY 201, PSY 223)</td>
</tr>
<tr>
<td>417</td>
<td>Intermediate Behavioral Statistics</td>
<td>3 hrs.</td>
<td>An intermediate level presentation of descriptive and inferential statistics as applied in behavioral research. (PR: PSY 201 and 223)</td>
</tr>
<tr>
<td>418</td>
<td>Psychology of Personnel</td>
<td>3 hrs.</td>
<td>Psychological principles and methods applied to functions in personnel administration. (PR: PSY 201; 12 college credits at 100 level or higher)</td>
</tr>
<tr>
<td>420</td>
<td>Introduction to Industrial - Organizational Psychology</td>
<td>3 hrs.</td>
<td>A systematic study of the application of psychological methods and principles in business and industry. Emphasis is on research methods, motivation, training, leadership, personnel selection, employee safety, and job satisfaction. (PR: PSY 201; 12 college credits at 100 level or higher)</td>
</tr>
<tr>
<td>426</td>
<td>Cross Cultural Psychology</td>
<td>3 hrs.</td>
<td>Emic and etic cultural concepts are considered from an American (subcultural) and international perspective. Cultural influences on healing, health and service are covered. (PR: PSY 201; 12 college credits at 100 level or higher)</td>
</tr>
<tr>
<td>427</td>
<td>Computer Applications in Psychology</td>
<td>3 hrs.</td>
<td>An introduction to computer applications in psychology, emphasizing data collection, management, organization, analysis and reporting. (PR: PSY 201, 223; CSD 101 or CT 101)</td>
</tr>
<tr>
<td>433</td>
<td>Current Models of Psychotherapy</td>
<td>3 hrs.</td>
<td>Introduction of theoretical models and related therapeutic strategies which influence the practice of modern psychotherapy. (PR: PSY 201, either PSY 360 or 408; or permission)</td>
</tr>
<tr>
<td>440</td>
<td>Physiological Psychology</td>
<td>3 hrs.</td>
<td>The relationships between physiological functions and biochemical processes and behavior. (PR: PSY 201; 12 college credits at 100 level or higher)</td>
</tr>
<tr>
<td>456-457</td>
<td>Research in Psychology</td>
<td>3; 3 hrs.</td>
<td>Laboratory courses to give advanced students experience in conducting psychological research. Capstone experience. (PR: Permission of instructor)</td>
</tr>
</tbody>
</table>
460 History and Systems of Psychology. 3 hrs.  
An examination of the historical and philosophical antecedents of contemporary psychology. Capstone experience (PR: Twelve hours of Psychology)  

470 Practicum in Industrial-Organizational Psychology. 3 hrs.  
The course will offer students applied observational/research experience in Personnel/Human Resource Departments under the supervision of professionals within the fields of Industrial-Organizational Psychology and Human Resources. Capstone experience. (PR: Either PSY 418 or 420; Major in Psychology; permission of instructor; complete application form).  

471 Practicum in Clinical Psychology. 3 hrs.  
Students work 6 hours per week in a local clinical setting where they have the opportunity to observe individual and group therapy, psychological testing, staff meetings, etc. Capstone experience. (PR: 12 hours of PSY including 408 and permission of instructor; complete application form)  

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.  

485-488 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.  
A course or seminar on some aspect of Psychology not otherwise treated in regular course offerings (PR: Permission of instructor and department chairperson)  

495H-496H Readings for Honors. 2-4 hrs. each.  
Open only to students of outstanding ability. See Honors Courses.  

499 Psychology Capstone Seminar. 3 hrs.  
A capstone course which integrates research methods, critical analysis, and problem solving applied to psychological questions and issues. (PR: PSY 223 and 323; 2.0 GPA in PSY and overall)  

RELIGIOUS STUDIES (RST)  

205 Introduction to Religious Traditions of the West. 3 hrs. I or II.  
A comparative study of major religious traditions of the Western world: Judaism, Christianity, Islam, Zoroastrianism, and religions of the Americas.  

206 Introduction to the Religious Traditions of Asia. 3 hrs. I or II.  
A comparative study of the major traditions of Asia: Hinduism, Buddhism, Confucianism, Taoism, and Shinto.  

250 Orientation in Humanities. 3 hrs. I.  
An interdisciplinary course to introduce students to the elements of a humanistic education. (Same as Classical Studies 150 and Philosophy 150; PR or CR: ENG 101) Egypt, Canaan, and the Hellenistic world  

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.  
Research adaptable to the needs of the individual student.  

300 The Nature of Religion. 3 hrs.  
An analysis of the nature of religious personalities, institutions, literature, philosophies, experiences, and education.  

303 World of Islam. 3 hrs.  
An examination of the global cultures of Islam with particular focus upon the origin and development of the religion which binds them together.  

304 The Teachings of Jesus. 3 hrs. I, II.  
An analysis of early Christian writing and a systematic study of the message of the historical Jesus that stands behind it.  

305 Early Christianity. 3 hrs.  
Traces the background, birth, and development of Christian thought from Paul through Augustine.  

310 The Hebrew Prophets. 3 hrs. I or II.  
The rise of the office of prophet and the contributions of prophecy to religion.  

320 Literature of the Old Testament. 3 hrs. I or II.  
Traces the origins, growth, and development of the literature of the Hebrew people to the Greek period. Includes an introduction to and application of modern tools of biblical study.  

321 The Protestant Faith. 3 hrs.  
An examination of the distinctive historical and theological features of the Protestant movement in Western Christendom, with special attention to the distinctive beliefs and practices of contemporary American denominations.  

322 The Catholic World. 3 hrs.  
An exploration of the origin and development of the Catholic World in all of its multiple expressions: theology, politics, liturgy, and the arts.  

323 Religion in America. 3 hrs. I, II.  
The rise and development of religious thinking in America. (Same as History 323)
The Jewish Way of Life. 3 hrs.
An exploration of the distinctive features of the heritage of modern Judaism. An integrated approach to the study of Jewish religious practices, teachings, literature, and contributions to contemporary life.

Literature of the New Testament. 3 hrs. I or II.
Traces the origins, growth, and development of the literature of the early Christian church. Includes an introduction to and application of modern tools of biblical study.

Basic Humanities. 3 hrs. II.
A structured interdisciplinary study offered by the departments of Classical Studies, Philosophy and Religious Studies in the foundations of Western thought: its myth, literature, religion, philosophy, art. (Same as Classical Studies 350 and Philosophy 350)

Classics of Religious Literature. 3 hrs.
A contextual analysis of selected popular religious classics, e.g., Foxe's Book of Martyrs, Bunyan's Pilgrim's Progress, St. Augustine's Confessions, Bhagavad-Gita, and the like.

Religious Thought in the Western World. 3 hrs.
An analysis of the major schools of religious thought as they have developed in the West.

Sociology of Religion. 3 hrs.
An investigation into religion as a social phenomenon. (Same as Sociology 450)

Learning to Drive. CR/NC. 1 hr.
An introduction to traffic safety: emphasis is placed on the fundamentals of driving, pedestrian and cycle safety. 2 lab. per week. (Lab fee non-drivers only)

Introduction to Safety Education. 3 hrs. II, S.
The child accident problem: basic courses, types, and areas of accidents; home, farm, recreation, school and vacation accidents; safe practices, control and prevention in the school and the general environment.

Special Topics. 1-4; 1-4; 1-4 hrs.

Industrial Fire Prevention. 3 hrs.
An introductory course that explores the relationship between engineering and fire prevention. Topics include: sprinkler systems, water supplies, behavior of fire and materials, fire protection, extinguishers and other systems. (PR: SFT 235 or SED 235)

Safety and Industrial Technology I. 3 hrs.
Industrial processes, graphics, materials, and dynamics, instrumentation, and design factors involving safety. (PR: PHY 201)

Principles in Ergonomics and Human Factors. 3 hrs.
Introductory principles within human-machine relationships; examining the biological, physiological, and psychological factors which contribute to accident causation. (PR: PHY 203)

Principles of Ergonomics Lab. 1 hr.
A laboratory course designed to include the principles and applications of human factors/ergonomics that were introduced in SFT 373. (CR: SFT 373 or SED 373)

Construction Safety I. 3 hrs.
Basic construction site safety focus on site preparation, planning, and inspection for safe operations. (PR: SFT 235 or SED 235 and sophomore standing or higher)

Safety Evaluation and Measurement. 3 hrs.
Methodologies of safety performance and evaluation for accident prediction and control. (PR: SFT 235 or SED 235 and sophomore standing or higher)

Traffic Safety and Driver Education. 3 hrs.
An introductory course in the teaching of safety and driver education, including techniques of classroom and behind-the-wheel instruction. 2 lec-2 lab.

Traffic Law and Enforcement. 3 hrs. II, S.
A course designed to study and evaluate the varied and complex system of laws governing the control of all forms of traffic and the influences and responsibilities of traffic law enforcement in present-day society.
410 Problems and Practices in Traffic Safety and Driver Education. 3 hrs.  
A survey course designed for supervisors of traffic accident prevention programs. Examines and evaluates problems, attitudes, philosophies, activities and administrative practices in school, city and state traffic safety programs. Supplements basic teacher training courses in traffic safety.

450 Traffic Engineering. 3 hrs.  
Concerned with traffic and pedestrian flow, channelization, light coordination, intersection control, and devices related to safe, convenient and economical transportation of persons and goods.

453 International Safety and Health.  
The effects of globalization on a variety of different countries’ health and safety programs.

454 Industrial Environmental Protection. 3 hrs.  
Environmental protection as related to industrial settings. Air/water quality, noise and chemical pollution and hazardous material control. (PR: CHM 212, PHY 203)

454L Environmental Programming/Sampling Lab. 2 hrs.  
Quantitative monitoring techniques for measuring air and water quality, the measurement of noise and chemical pollutants, and the evaluation of physical hazards. (CR: SFT 454 or SED 454)

458 Hospital Safety.  
The role of safety and its effect on health professionals in hospitals, nursing homes and various health care facilities.

465 Accident Investigation/Reconstruction. 3 hrs.  
An introductory course in traffic accident investigation designed to give insight into the recognition and collection of evidence, collecting and recording data and reconstructing the accident based on the facts. (PR: SFT 372 or SED 372)

475 Systems Safety. 3 hrs.  
Introduction to and application of concepts and methods of system safety techniques. (PR: SFT 372 or SED 372)

480-483 Special Topics. 1-4; 1-4; 1-4 hrs.  
Students with specialization in safety education only, with permission of department chairman.

485-488 Independent Study. 1-4; 1-4; 1-4 hrs.  
A study of the latest industrial safety information which will assist the student in designing a program to reduce or eliminate all incidents which downgrade the system. (PR: SFT 465 or SED 465; PHY 203)

490 Safety Internship. 3 hrs.  
Supervised experience on the job site. (PR: Permission of Instructor)

491-494 Workshop. 1-4; 1-4; 1-4 hrs.  
Workshop in selected areas of occupational safety and health.

497 Occupational Safety and Health Programs. 3 hrs.  
Safety functions in industry. Principles of organization and application of safety programs. Prevention, correction and control methods are outlined and evaluated. (PR: SFT 372 or SED 372)

498 Environmental Safety and Health Legislation. 3 hrs.  
A survey of the legislation that has affected the safety movement with special emphasis on the 1970 Occupational Safety and Health Act. (PR: junior or senior status, SFT 372 or SED 372)

499 Occupational Safety Program Management. 3 hrs.  
A study of safety programs at the state and local levels including the administrative, instructional, and protective aspects of a comprehensive safety program in schools, occupations, home and public. (PR: SFT 372 or SED 372)

SCIENCE EDUCATION  
(Listed under Teacher Education)

SOCIAL STUDIES (SOS)  
207 Problems of a Multicultural Society. 3 hrs. I, II, S.  
An interdisciplinary analysis of the multicultural nature of American society and its problems, with emphasis on the problems of minority groups.

404 Senior Seminar. 3 hrs. I or II.  
A capstone course designed for those preparing to teach social studies in the middle school and the high school. (PR: Admission to teacher education; CR: An educational methods course)
SOCIAL WORK (SWK)
(The Bachelor of Social Work program is housed in the School of Medicine.)

203  Introduction to Social Work. 3 hrs.
Introduction to the field of social work.

250  Volunteerism and Social Work. 1 hr.
Examination of social issues, social activism, civic responsibility, values, historical perspectives, and strategies for social change with 40 hour community service component.

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
Selected topics not covered in regular course offerings. (PR: Majors only)

307  Child Welfare. 3 hrs.
Examination of child welfare issues, services, and interventions. (PR: SWK 203)

310  Human Behavior and Social Environment I. 3 hrs.
Integration of biological, psychological, social and cultural aspects of the individual’s growth and development from prenatal period through adolescence including the impact the social environment has on the individual. (PR: BSC 105, SOC 200, PSY 201, SWK 203, ENG 101, ENG 102 or permission of instructor. CR: SWK 320, 330, 340, or permission of instructor)

312  Human Behavior and the Social Environment II. 3 hrs.
Integration of biological, psychological, social and cultural aspects of the individual’s growth and development from early through later adulthood including impact of social environment on the individual. Organizational theory included. (PR: BSC 105, SOC 200, PSY 201, SWK 203, 310, 320, 330, 340, or permission from instructor; CR: SWK 322, 332, 370, or permission from instructor)

320  Social Work Practice I. 4 hrs.
Generalist Social Work Practice with populations and institutions of Appalachia. Professional development, information gathering, and assessment across various size systems (PR: SWK 203 or permission of instructor. CR: SWK 310, 330, 340 or permission of instructor) For Social Work majors only.

322  Social Work Practice II. 4 hrs.
Generalist Social Work Practice with populations and institutions of Appalachia. Planning, intervention evaluation and termination across various size systems. (PR: SWK 203, 310, 320, 330, 340 or permission of instructor. CR: SWK 312, 332, 370 or permission of instructor) For Social Work majors only.

330  Social Welfare Issues in Appalachia. 3 hrs.
The development of Social Welfare as a continuing institution. Rural poverty and other critical social issues in Appalachia. (PR: ECN 250, PSC 202, SWK 203, or permission of instructor. CR: SWK 310, 320, 340, or permission of instructor)

332  Social Welfare Policy and Legislation. 3 hrs.
Policy formulation, implementation and analysis. Examination and critical analysis of social welfare policies, legislation, and administration. (PR: ECN 250, PSC 202, SWK 203, SWK 330, SWK 340 or permission of instructor. CR: SWK 312, 322, 370 or permission of instructor)

340  Social Work Research. 3 hrs.
Introduction to Social Work Research with preparation for evaluation of generalist practice. (PR: SWK 203 MTH 121 or above excluding 400 and 401 or permission of instructor. CR: SWK 310, 320, 330)

370  Practicum I. 3 hrs. CR/NC
Supervised field experience in a social agency or organization for minimum of 100 clock hours. Regular conferences with instructor and weekly seminars. (PR: SWK 203, 310, 320, 340. CR: SWK 312, 322, 332)

473  Practicum II. 12 hrs. CR/NC
Supervised field experience in a social agency or organization for minimum of 400 clock hours. Regular conferences with instructor and weekly seminars. (PR: SWK 203, 310, 312, 320, 322, 330, 332, 340, 370)

475  Social Work Capstone Seminar. 6 hrs.
A capstone course integrating coursework and field work as preparation for beginning level of generalist Social Work practice. (PR: SWK 203, 310, 312, 320, 322, 330, 332, 340, 370, 473, writing requirements). This course is taken the last regular semester before graduation.

480-483 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs. Study of topics of interest not covered in regularly scheduled classes.

485-488 Independent Study. 1-4; 1-4; 1-4 hrs. Individual study of topics not offered in regularly scheduled courses. Advance permission required.

495H-496H Readings for Honors in Social Work. 2-4; 2-4 hrs. Open only to social work majors of outstanding ability. See Honors Courses.
SOCIOLOGY (SOC)

108 Marriage Relations. 3 hrs.
A functional course in the personal, social, and cultural factors involved in courtship and marriage.

200 Introductory Sociology. 3 hrs.
Introduction to the study of human society.

200H Introductory Sociology, Honors. 3 hrs.
Introduction to sociology for the superior student. (PR: ACT scores of 26+ or a GPA of 3.2)

280-283 Special Topics. 1-4; 1-4; 1-4; 1-4 hrs.
Selected topics not covered in regular course offerings. (PR: SOC 200)

297-298 Instructional Television Course. 1-4 hrs.
A course based upon an Instructional Television Series broadcast by public television. The student is responsible for viewing the series on the air and satisfying all course requirements announced by the department.

300 Social Organization. 3 hrs.
Analysis of sociological conceptual systems and theories. (PR: SOC 200)

310 Individual and Society. 3 hrs.
Study of sociological perspectives on social interaction and the relationship between the individual and society. (PR: SOC 200)

311 Deviance and Social Control. 3 hrs.
Study of the basic concepts and theories regarding deviant behavior and the mechanisms of social control. (PR: SOC 200)

313 Contemporary Social Issues and Problems. 3 hrs.
Analysis of current social issues and problems from a variety of sociological perspectives. Issues and problems will vary from semester to semester. (PR: SOC 200)

330 Sociology of Community Health. 3 hrs.
An investigation of those social institutions and environmental, social, and personal factors in the community to maintain health and provide support in illness as related to social theory. (PR: SOC 200)

342 American Society. 3 hrs.
Sociological analysis of the basic social and cultural features of contemporary American society. (PR: SOC 200)

344 Social Research I. 3 hrs.
Introduction to systematic social research methodology. (PR: SOC 200)

345 Social Statistics I. 3 hrs.
Introduction to statistical analysis of social data.

360 Sociological Perspectives. 3 hrs.
Introduction to the dominant theoretical perspectives in sociology examining the assumptions about human nature, society and sociology that constitute each theoretical tradition. (PR: SOC 200)

375 Social Stratification. 3 hrs.
Introduction to the analysis of structured social inequality with emphasis on the dimensions of social class, race and gender. (PR: SOC 200)

401 Population and Human Ecology. 3 hrs.
The course focuses on population and its relation to characteristics of environment. Specifically, it is designed to discuss the interaction of population processes and resources. (PR: SOC 200)

403 Social Research II. 3 hrs.
Intermediate social research methodology with emphasis on research design. (PR: SOC 344 and 345, or departmental permission)

408 The Family. 3 hrs.
Theoretical analysis of the family as a primary social institution. (PR: SOC 200)

413 Social Movements and Social Change. 3 hrs.
Analysis of large-scale social change, including intentional social movements and revolutions. (PR: SOC 200)

420 Criminology. 3 hrs.
An overview of sociological criminology, including an examination of explanations of criminal behavior, types of criminal activity, and an analysis of the criminal justice system. (PR: SOC 200 and 311 or permission)

421 Sociological Theory. 3 hrs.
Examination of the emergence and development of theoretical orientations in Sociology. (PR: SOC 200)

423 Social Class, Power and Conflict. 3 hrs.
Theoretical analysis of economic and political inequality and the role of social conflict in the process of large-scale social organization. (PR: SOC 200)
425  Race and Ethnicity. 3 hrs.
Diverse theoretical approaches to the meaning of race and ethnicity and the character of racial/ethnic relations, with substantive focus primarily on the U.S. (PR: SOC 200)

428  Medical Sociology. 3 hrs.
Analysis of the social organization of medicine and related health delivery services. (PR: SOC 200)

432  Sociology of Appalachia. 3 hrs.
Study of the economics, politics, and social relations of Appalachia, including contemporary debates over development in the region. (PR: SOC 200)

433  Industrial Sociology. 3 hrs.
Study of the organization and structure of the work place as a social system; the meaning and organization of work; managerial functions; management-labor relations; and human relations in industry. (PR: SOC 200)

435  Juvenile Delinquency. 3 hrs.
A sociological analysis of juvenile crime, including a review of the origins of juvenile delinquency, an evaluation of causal theories, and an overview of the juvenile justice system. (PR: SOC 200, SOC 311 or permission)

440  Introduction to the Sociology of Aging. 3 hrs.
An introduction to the social processes and consequences of growing older for both the individual and society. (PR: SOC 200)

442  Urban Sociology. 3 hrs.
The sociology of urban and metropolitan communities. (PR: SOC 200)

443  Evaluation Research. 3 hrs.
Analysis and application of theories and methods for assessing the outcomes of applied organizational services and programs to affect change in people and/or social conditions. (PR: SOC 200)

445  Social Statistics II. 3 hrs.
Intermediate level statistical analysis, including analysis of variance and covariance. 2 lec-2 lab. (PR: SOC 345 or departmental permission)

450  Sociology of Religion. 3 hrs.
Sociological analysis of religion as a social institution. (PR: SOC 200. Same as Religious Studies 450)

452  Sociology of Death and Dying. 3 hrs.
Study of death and dying as a societal and cultural phenomenon. Explores how institutions within our society deal with death. (PR: SOC 200)

455  Sociology of Sex and Gender. 3 hrs.
Analysis of social differentiation and inequality by gender, with a focus on the contemporary U.S. (PR: SOC 200)

460  Holocaust and Genocide. 3 hrs.
An examination of the Holocaust and other genocides from an interdisciplinary social science perspective. (PR: SOC 200)

464  Complex Organizations. 3 hrs.
Analysis of complex organizations with special attention given to bureaucratic organization. (PR: SOC 200)

470-471  Field Experience in Applied Sociology. 3; 3 hrs.
Supervised field work in public or private agencies affording students an opportunity to apply sociological knowledge and skills in addressing practical problems. (PR: SOC 200)

475  Senior Seminar. 3 hrs.
A capstone course drawing together the major areas of sociology to form an integrated picture of the field. Capstone experience. (PR: Graduating senior in sociology)

480-483  Special Topics. 1-4; 1-4; 1-4 hrs.
Study of topics of interest not covered in regularly scheduled courses. (PR: Permission)

485-488  Independent Study. 1-4; 1-4; 1-4 hrs.
Individual study of topics not offered in regularly scheduled courses. Advance permission required. (PR: Permission)

495H-496H  Readings for Honors in Sociology. 2-4; 2-4 hrs. I, II.
Open only to sociology majors of outstanding ability. See Honors Courses.

497-498  Instructional Television Course. 1-4 hrs.
A course based upon an Instructional Television Series broadcast by public television. The student is responsible for viewing the series on the air and satisfying all course requirements announced by the department.
**SPANISH (SPN)**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
<th>Hours</th>
<th>Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-102</td>
<td>Introductory Spanish. 3; 3 hrs. I, II, S.</td>
<td>3</td>
<td></td>
<td>Pronunciation, vocabulary and basic language structures. For students with no foreign language experience. (PR for SPN 102: SPN 101)</td>
</tr>
<tr>
<td>112</td>
<td>Elementary Spanish. 3 hrs. I, II.</td>
<td></td>
<td></td>
<td>Emphasis on oral communication and comprehensibility, some reading and writing. Students completing the course with a grade of C or better are awarded three additional hours of credit toward graduation. (PR: two years or more of high school Spanish)</td>
</tr>
<tr>
<td>203</td>
<td>Intermediate Spanish. 3 hrs. I, II, S.</td>
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<td></td>
<td>Emphasis on oral and written communication. Conversation and composition. Intermediate language structures. (PR for SPN 203: SPN 102 or SPN 112 or three or four units of high school Spanish or departmental examination)</td>
</tr>
<tr>
<td>204</td>
<td>Intermediate Spanish. 3 hrs. I, II, S.</td>
<td></td>
<td></td>
<td>Development of practical conversational skills, reading for comprehension, and directed compositions. (PR for SPN 204: SPN 203 or three or four units of high school Spanish or departmental examination)</td>
</tr>
<tr>
<td>280-283</td>
<td>Special Topics. 1-4; 14; 14; 14 hrs.</td>
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<td></td>
<td>(PR: SPN 204)</td>
</tr>
<tr>
<td>310-311</td>
<td>Advanced Conversation. 3; 3 hrs. I, II.</td>
<td>3</td>
<td></td>
<td>Conversation and discourses in Spanish on selected topics. Courses conducted in Spanish. (PR for either SPN 310 or SPN 311: SPN 204)</td>
</tr>
<tr>
<td>312</td>
<td>Foreign Language Teaching Techniques. 3 hrs. II.</td>
<td></td>
<td></td>
<td>Introduction to the communicative approach to language teaching. Presentation and practice in the creation of lesson plans using in-class technologies and computer assisted language learning materials. For Spanish education majors only. (PR: SPN 204)</td>
</tr>
<tr>
<td>315-316</td>
<td>Advanced Grammar and Composition. 3; 3 hrs. I, II.</td>
<td>3</td>
<td></td>
<td>A detailed analysis of Spanish syntax and shades of meaning, with the writing of original compositions in Spanish to perfect the student’s own style. Courses conducted mainly in Spanish. (PR: SPN 204)</td>
</tr>
<tr>
<td>323-324</td>
<td>Advanced Grammar and Oral Communication.</td>
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<td></td>
<td>Analysis of grammatical structures. Introduction to phonetics and applied linguistics, and oral practice in various discourse types such as conversation, narration, discussion/debate, presentation. Courses conducted mainly in Spanish. (PR: SPN 204)</td>
</tr>
<tr>
<td>335</td>
<td>Latin America: Culture and Civilization. 3 hrs. I.</td>
<td>3</td>
<td></td>
<td>A study of the civilization of the Latin-American countries and their contributions to world culture. Lectures, discussions, and reports. Course conducted in Spanish. (PR: SPN 204)</td>
</tr>
<tr>
<td>336</td>
<td>Spain: Culture and Civilization. 3 hrs. II.</td>
<td>3</td>
<td></td>
<td>A study of the civilization of Spain and its contributions to world culture. Lectures, discussions, and reports. Course taught in Spanish. (PR: SPN 204)</td>
</tr>
<tr>
<td>411</td>
<td>Pre Modern Latin American Literatures.</td>
<td></td>
<td></td>
<td>A study of representative Latin American literary works from the Pre-Colonial and Colonial periods and the 19th Century. Course conducted in Spanish. Capstone. (PR: SPN 315/316 or SPN 323/324)</td>
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<tr>
<td>412</td>
<td>Contemporary Latin American Literatures.</td>
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<td></td>
<td>A study of a selection of Latin American authors and works representative of the major literary movements in Latin America, from Modernism to present. Course conducted in Spanish. Capstone. (PR: SPN 315/316 or SPN 323/324)</td>
</tr>
<tr>
<td>413</td>
<td>Literary Genres and Non-Canonical Issues in Latin America.</td>
<td></td>
<td></td>
<td>Study of poetry, fiction, drama, essays, etc., in Latin America. At the discretion of the instructor literary genres will be crossed with approaches such as gender, race, religion, ethnicity, etc. Course conducted in Spanish. Capstone. (PR: SPN 315/316 or SPN 323/324)</td>
</tr>
<tr>
<td>414</td>
<td>Medieval, Renaissance and Golden Century Spanish Literature.</td>
<td></td>
<td></td>
<td>Study of the representative Spanish authors and literary works and the major intellectual movements in peninsular literature from Medieval times to Spain’s Golden Century. Course conducted in Spanish. Capstone. (PR: SPN 315/316 or SPN 323/324)</td>
</tr>
<tr>
<td>415</td>
<td>Spanish Literature: 18th and 19th Centuries.</td>
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<td></td>
<td>Study of the representative Spanish authors and literary works and the major intellectual movements in peninsular literature during the 18th and 19th centuries. Course conducted in Spanish. Capstone. (PR: SPN 315/316 or SPN 323/324)</td>
</tr>
<tr>
<td>416</td>
<td>Contemporary Spanish Literature.</td>
<td></td>
<td></td>
<td>Study of the representative Spanish authors and literary works and the major intellectual movements in peninsular literature from the Generation of 1898 to the present. Course conducted in Spanish. Capstone. (PR: SPN 315/316 or SPN 323/324)</td>
</tr>
</tbody>
</table>
Hispanic Film and Literature. Courses on selected films by Spanish and Spanish-American directors and on films based on literature. Reviews by contemporary film critics. Film and literary theory. Courses conducted in Spanish or English. (PR: SPN 204)

Special Topics. 1-4; 1-4; 1-4 hrs. I, II. Independent research for qualified students. (PR: SPN 204 and permission of instructor)

Independent Study. 1-4; 1-4; 1-4 hrs. (PR: SPN 204 and permission of instructor)

Readings for Honors in Spanish. 4; 4 hrs. I, II. Open only to outstanding majors. See Honors Courses.

THEATRE (THE)

Introduction to Theatre. 3 hrs.
Fundamentals of theatre arts. (PR: majors only)

Theatre Appreciation. 3 hrs. I, II, S.
Development of an appreciation and an understanding of theatre as a fine art. For non-theatre majors.

Introduction to Technical Theatre. 3 hrs.
Introduction to scene design, lighting, set construction, and other aspects of technical production. 150 and 151 should be taken concurrently. 152 should be taken the following semester.

Introduction to Technical Theatre Laboratory. 1; 1 hr.
Practical experience in building, painting, dressing, lighting scenery, and costume construction. Work in conjunction with Marshall University Theatre productions.

Stage Movement. 3 hrs.
Exercises for flexibility and control; stage terms and techniques; pantomime; improvisation; manners and dances from major theatrical periods; and acting scenes with usual movement.

Stage Voice and Dialects. 3 hrs.
Vocal techniques for the actor.

Acting III: Scene Study. 3 hrs.
Development of skill through exercises and analytical study of scenes. (PR: THE 220 and 221 or permission of instructor)

Creative Dramatics. 3 hrs.
Methods and techniques of creation of informal drama for all ages.

Auditioning Techniques. 3 hrs.
Techniques of auditioning for theatre, film, and television. (PR: THE 222)

Introduction to Costuming. 3 hrs.
The history, design, and construction of theatrical costumes.

Stage Makeup. 3 hrs.
The application of script analysis to determine appropriate straight, corrective, aged, and/or character makeup designs. Practical knowledge of anatomical structure, drawing, pancake, latex prosthetics and facial hair are utilized. (PR: THE 150)

Theatrical Drafting and Rendering. 3 hrs.
The application of drafting and rendering conventions utilized in the planning and execution of theatrical productions. Mechanical drawing, computer assisted drawing, freehand sketching and color application techniques will be employed. (PR: THE 150, 151)

Stage Decor. 3 hrs.
A historical view of period style, furniture, accessories and motifs as they relate to interior decoration and architecture. Student renderings of documented research will constitute portfolio for subsequent design and applications.

Theatre Practicum. 1 hr.
Acting, directing, or technical work in Marshall University Theatre productions. Register only with permission of instructor. Open to all students. May be repeated for a total of four hours.

Acting Styles. 3 hrs.
Interpretation of roles from classical, romantic, neoclassical, and modern plays. (PR: THE 222)

Advanced Stage Dialects and Accents. 3 hrs. I.
Study and practice of dialects and accents that are commonly used in theatre, film, and television. (PR: THE 221)

Readers Theatre. 3 hrs.
Oral interpretation of dramatic text with emphasis on public performance. (PR: THE 220, 221)

Stage Lighting I. 3 hrs.
Play analysis, production concepts, elementary electricity, lighting instrumentation, color theory, intensity control, mechanical and AutoCAD drawing, cueing, and design documentation are utilized for lighting prosenium designs. Student light plots required. (PR: THE 150, 151 and 152)
355 Costume Design. 3 hrs.
Practical and psychological aspects of design. Study of design theory, script analysis, rendering techniques, fabric choices. Development of designs from initial concept to final renderings. (PR: THE 250)

356 Costume Construction. 3 hrs.
A hands-on approach to the techniques of theatrical costuming. Period method by machine and hand, industrial machine, and some pattern making. Work on classroom projects and university productions. (PR: THE 250)

360 Scene Design I. 3 hrs.
Practical application of aesthetic and technical principles of scene design for the proscenium stage. Script analysis, production concepts, architectural research, mechanical and autoCAD drawings, white models, painter's elevations are utilized. (PR: THE 150, 151 and 152)

361 Theatrical Scene Painting. 3 hrs.
Exploration of various techniques utilized by scenic artist including the generation of painter's evaluations, interpretive design renderings, estimating scenic demands, media selection, and execution of designs in full scale. (PR: THE 261 or permission of instructor)

362 Stage Management. 3 hrs.
The responsibilities of stage management are explored to prepare students entering the profession. Principles and practices of stage management are applied through scheduling, budgeting, running, cueing, and safety. (PR: THE 150 and 350 or permission of instructor)

370 Theatre Practicum. 1 hr.
Acting, directing, or technical work in Marshall University Theatre productions. Register only with permission of instructor. (PR: Open only to Theatre Majors.) May be repeated for a total of four hours.

410 Playwriting. 3 hrs.
Study of dramatic structure, characterization, dialogue, themes, sounds, and spectacle, including the writing of one-act plays. (PR: THE 101 or permission of instructor)

420 Acting for Musical Theatre. 3 hrs.
Analysis of musical scripts, study of spoken and musical scenes, staging musical numbers, and preparation of audition material. (PR: THE 222)

437 Directing I. 3 hrs.
Introduction to theories, principles, techniques, and history of directing. (PR: THE 150, 151, 152 and 152)

438 Directing II. 3 hrs.
In-depth study of directorial approaches. Analysis of contemporary movements and leaders in the field. Students must stage productions as part of class requirement. (PR: THE 437)

440 Theatre History to 1660. 3 hrs.
Survey of man's activities in the theatre from primitive times to 1660. (PR: THE 101 or permission of instructor)

441 Theatre History Since 1660. 3 hrs.
Survey of man's activities in the theatre from 1660 to present. (PR: THE 101 or permission of instructor)

450 Stage Lighting II. 3 hrs.
Advanced study in lighting design principles utilized for non-proscenium stages and/ or impressionistic productions will be emphasized. Combined visual, manual and computer generated documentation will comprise portfolio for final critique. (PR: THE 350)

460 Scene Design II. 3 hrs.
Advanced work in the process and styles of design for the stage. Abstraction, non-traditional materials and computer design utilization for various theatre forms will provide portfolio documentation for final critique. (PR: THE 261, 360)

480 Special Topics in Theatre. 1-4 hrs.
Program of study not normally covered in other courses. Topics vary from semester to semester.

485-488 Independent Study. 1-4; 1-4; 1-4; 1-4 hrs.
Courses taught by tutorials; directed independent readings or research; problem reports, and other activities designed to fill the needs of individual students. (PR: Permission of chairman)

490 Theatre Internship. 1-4 hrs.
Supervised off-campus contractual work-study arrangement with external agencies or theatrical institutions. (PR: Permission of chairman)

491-494 Theatre Workshop. 1-4; 1-4; 1-4; 1-4 hrs.
Practical, participatory courses for advanced students and professionals. Experience in new techniques, theories, and principles. (PR: Permission of instructor)
495H-496H Honors in Theatre. 1-3; 1-3 hrs.
Readings for honors in theatre. (PR: Permission of chair)

499 Senior Capstone Project. 3 hrs.
The capstone project serves to demonstrate the student’s proficiency in the major field of study. It is the culmination of coursework in the concentration (performance, directing, design, playwriting, stage management, etc.) (PR: permission of instructor)

UNIVERSITY HONORS (HON)
Honors Seminar Substitution for a Department Major Requirement or a College General Education Requirement. Substitution of an Honors seminar for a department major requirement or a college general education requirement should be requested before the course begins, or no later than the completion of the course. No such request will be honored during the second semester of the senior year. See the Executive Director, CAE (Old Main 230), for instructions and necessary forms.

101 Introduction to Honors. 1 hr. I.
Students meet their peers, learn about the Honors Program, and through small group discussion talk about college life and plan their academic future. Enriched section of New Student Seminar. (PR: ACT 26 and 3.3 GPA)

150 Critical Issues. 4 hrs. II.
Study and critical analysis of thought-provoking reading material. Examination of logical reasoning versus fallacious reasoning. Designed to prepare the student for critical thinking in subsequent honors courses. (PR: 3.3 GPA)

195-197 Interdisciplinary Honors. 4; 4; 4 hrs.
(195, Science and the Arts; 196, The American Experience; 197, Ideas in Social Sciences). These courses are subject to periodic changes in content. (PR: 3.3 GPA)

294 Interdisciplinary Honors. 4 hrs.
Ideas in Social Science. This course is subject to periodic changes in content. (PR: 3.3 GPA)

295 Interdisciplinary Honors. 4 hrs.
Ideas in Natural Science. This course is subject to periodic changes in content. (PR: 3.3 GPA)

296 Interdisciplinary Honors. 4 hrs.
Ideas in the Humanities. This course is subject to periodic changes in content. (PR: 3.3 GPA)

395-396 Interdisciplinary Honors. 4; 4 hrs.
Open to distinguished sophomores and upperclassmen of the undergraduate colleges and schools. Course content varies each semester. (PR: 3.3 GPA)

480-483 Special Topics. 1-4 hrs.
A study of special topics not listed under current course offerings. (PR: 3.3 GPA)

495H-496H Departmental Readings for Honors.
See individual departmental listings.

WOMEN’S STUDIES (WS)
101 Introduction to Women’s Studies.

YEAGER SCHOLARS (YGS)
161 Seminar in Communications and Computers. 5 hrs.
Development of skills in oral communication; knowledge of the nature and impact of the mass media; ability to use the computer as a tool of communication and research.

162 Seminar in Humanities, Texts, and Values. 5 hrs.
Explores values in the life of the individual and society; examines ideas and modes of inquiry common to the humanities by exploring the works of selected Western thinkers.

271 Seminar in Theories of Natural and Social Sciences and Statistics. 5 hrs. ISC credit.
Introduction to the nature of scientific thought, methods, and theories in the natural and social sciences; explores concepts in statistics relevant to the development of hypotheses and theories.

272 Seminar in Arts and History. 5 hrs. WAC credit.
Introduction to the nature of the arts and their role in societies; understanding the nature and value of history.