

Courses

Animal and Veterinary Science

A&VS 150. Introduction to Animal Science. 2 Hours.

Survey of major disciplines in animal and veterinary sciences with emphasis on related terminology; study of the development of breeds of livestock and their identification.

A&VS 191. First-Year Seminar. 1-3 Hours.

Engages students in active learning strategies that enable effective transition to college life at WVU. Students will explore school, college and university programs, policies and services relevant to academic success. Provides active learning activities that enable effective transition to the academic environment. Students examine school, college and university programs, policies and services.

A&VS 251. Principles of Animal Science. 4 Hours.

A comparative study of the production of meat, milk, eggs and wool. Nutrition, physiology genetics, hygiene and physical environment, and economics are discussed as bases for sound managerial decisions. (1 hr. lab.).

A&VS 275. Companion Animal Science. 3 Hours.

Basic physiology, nutrition and genetics; economic and ethical consideration of pet ownership; benefits of companion animals in society; aspects of handling and training, behavior, and common health diseases and parasite problems of pet animals.

A&VS 293. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

A&VS 298. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

A&VS 393. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

A&VS 480. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480, the student must: (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480A. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480A, the student must: (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480B. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480B, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtained approval from the instructor assigned the course responsibility.

A&VS 480C. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480C, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480D. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480D, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480E. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480E, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtained approval from the instructor assigned the course responsibility.

A&VS 480F. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480F, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480G. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480G, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480H. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480H, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480I. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480I, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480J. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480J, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480K. Assigned Topics. 1-6 Hours.

To be eligible to register in A&VS 480K, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480L. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480L, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480M. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480M, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480N. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480N, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480O. Assigned Topics. 1-4 Hours.

To be eligible to register for A&VS 480O, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480P. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480P, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480Q. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480Q, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480R. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480R, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480S. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480S, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480T. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480T, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480U. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480U, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480V. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480V, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480W. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480W, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480X. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480X, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480Y. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480Y, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 480Z. Assigned Topics. 1-4 Hours.

To be eligible to register in A&VS 480Z, the student must (1) be in good standing, (2) obtain approval of the instructor supervising the topic, and (3) obtain approval from the instructor assigned the course responsibility.

A&VS 491. Professional Field Experience. 1-18 Hours.

PR: Consent. (May be repeated up to a maximum of 18 hours.) Prearranged experiential learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.

A&VS 499. Global Service Learning. 3 Hours.

PR: Consent. Theory and practice of global service-learning. The main objective will be to pair the experiential aspects of meaningful and sustained service in the host community with work from the student's anchor course by offering a methodological framework for cultural immersion and community service as well as adding to the content of the anchor course.

Accounting

ACCT 191. First-Year Seminar. 1-3 Hours.

Engages students in active learning strategies that enable effective transition to college life at WVU. Students will explore school, college and university programs, policies and services relevant to academic success. Provides active learning activities that enable effective transition to the academic environment. Students examine school, college and university programs, policies and services.

ACCT 201. Principles of Accounting. 3 Hours.

The concepts, principles, and procedures pertaining to the preparation, analysis, and interpretation of financial statements.

ACCT 202. Principles of Accounting. 3 Hours.

PR: ACCT 201 with grade of C or better. Utilization of accounting information for purposes of managerial control and decision making; cost concepts, profit and financial budgeting, analysis of financial statements.

ACCT 298. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

ACCT 393. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

Athletic Coaching Education

ACE 106. Athletic Coaching Education. 3 Hours.

Overview of athletic coaching profession including careers opportunities, critical current issues/trends, professional standards and the professional organizations.

ACE 168. Sport Officiating. 2 Hours.

Study of the art, science, industry standards, and best practices of the officiating profession across all levels of sport.

ACE 256. Principles and Problems of Coaching. 3 Hours.

Designed to teach students the principles and problems of interscholastic athletic coaching.

ACE 265. Diversity and Sport. 3 Hours.

Covers historical and current topics relevant to diversity in sport as it relates to current sport practices. Practical strategies for facilitating acceptance of diversity within individual/team sports are discussed.

ACE 298. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

ACE 393. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

ACE 490. Teaching Practicum. 1-3 Hours.

PR: Consent. Teaching practice as a tutor or assistant.

ACE 492. Directed Study. 1-3 Hours.

Directed study, reading, and/or research.

ACE 496. Senior Thesis. 1-3 Hours.

PR: Consent.

ACE 497. Research. 1-6 Hours.

Independent research projects.

ACE 498. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

Applied and Environmental Microbiology

AEM 293. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

AEM 298. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

AEM 341. General Microbiology. 4 Hours.

PR: CHEM 115. Introductory morphological, cultural, and physiological characteristics of microorganisms; application of microbiology to agriculture, home economics, and health.

AEM 393. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

AEM 497. Research. 1-6 Hours.

Independent research projects.

Agriculture, Forestry, and Consumer Science

AFCS 298. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

AFCS 393. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

AFCS 490. Teaching Practicum. 1-3 Hours.

PR: Consent. Teaching practice as a tutor or assistant.

AFCS 491. Professional Field Experience. 1-18 Hours.

PR: Consent. (May be repeated up to a maximum of 18 hours.) Prearranged experiential learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.

AFCS 492. Directed Study. 1-3 Hours.

Directed study, reading, and/or research.

AFCS 497. Research. 1-6 Hours.

Independent research projects.

Agriculture and Extension Education

AGEE 101. Global Food and Agricultural Industry. 3 Hours.

Examination of the history and current developments, structures, functions, and importance of the international food and agricultural industry; issues, concerns and interrelationships and their impacts on American agriculture and society.

AGEE 103. Basics of Agricultural Mechanization. 2 Hours.

Study and application of the foundation area associated with agricultural mechanization.

AGEE 110. Microcomputer Applications in Agricultural Education. 3 Hours.

PR: Consent. Microcomputer applications in the instructional process of agricultural education; use of applications software, agricultural software, and data bases; and methods of integrating microcomputers into secondary school agriculture and extension programs.

AGEE 187. Welding and Heat Treatment. 1 Hour.

Principles and practices of metal arc welding using mild steel. Safety and electrode selection for various metals is covered. Designed for agriculture applied science students.

AGEE 203. Agriculture Mechanics Practica. 3 Hours.

Theory and practice of designing and constructing structures, electrical circuits, masonry, equipment maintenance, and surveying.

AGEE 220. Group Organization and Leadership. 3 Hours.

Study of the impact of leaders and organized groups on societies. Role of groups in conveying cultural norms. Principles and techniques involved in forming and directing organizations in providing effective leadership.

AGEE 298. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

AGEE 303. Small Engines and Hydraulics. 3 Hours.

Theory and practice of disassembling, assembling and maintaining small gasoline engines and hydraulic devices.

AGEE 393. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

AGEE 497. Research. 1-6 Hours.

Independent research projects.

Agriculture

AGRL 111. Professions in Agriculture. 1 Hour.

An overview of subject matter related to agriculture in current society. Emphasis on agricultural organizations, environmental and food issues, careers, and programs within the college.

AGRL 112. Professions in Agriculture. 1 Hour.

Continuation of AGRL 111.

AGRL 191. First-Year Seminar. 1-3 Hours.

Engages students in active learning strategies that enable effective transition to college life at WVU. Students will explore school, college and university programs, policies and services relevant to academic success. Provides active learning activities that enable effective transition to the academic environment. Students examine school, college and university programs, policies and services.

AGRL 290. Teaching Practicum. 1-3 Hours.

PR: Consent. Teaching practice as a tutor or assistant.

AGRL 291. Professional Field Experience. 1-18 Hours.

PR: Consent. (may be repeated for a maximum of 18 credit hours.) Prearranged experiential learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.

AGRL 298. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

AGRL 393. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

AGRL 497. Research. 1-6 Hours.

Independent research projects.

Agronomy

AGRN 202. Principles of Soil Science. 3 Hours.

PR: CHEM 111 or equivalent and PR or CONC: AGRN 203. Introductory course. Soils as a natural resource emphasizing physical, chemical, and biological properties in relation to plant growth and production, land use and management, soil and water pollution, and environmental protection. (Regional campus concurrent.).

AGRN 203. Principles of Soil Science Laboratory. 1 Hour.

PR or CONC: AGRN 202 or consent. (Regional campus concurrent.).

AGRN 293. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

AGRN 298. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

AGRN 315. Turfgrass Management. 3 Hours.

PR: AGRN 202 and AGRN 203 and PLSC 206 or consent. Establishment, maintenance and adaptation of grasses for lawns, golf courses, parks, athletic and playing fields, and roadsides. Associating differential plant responses with soil, climatic and biotic factors. (3 hr. lec.).

AGRN 393. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

AGRN 492. Directed Study. 1-3 Hours.

Directed study, reading, and/or research.

AGRN 495. Independent Study. 1-6 Hours.

Faculty-supervised study of topics not available through regular course offerings.

AGRN 497. Research. 1-6 Hours.

Independent research projects.

Animal Nutrition

ANNU 260. Animal Nutrition. 3 Hours.

PR: Two courses in chemistry. Digestion and metabolism of food nutrients, nutrient requirements of farm animals, and nutritive values of feeds and rations.

ANNU 293. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

ANNU 298. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

ANNU 492. Directed Study. 1-3 Hours.

Directed study, reading, and/or research.

ANNU 497. Research. 1-6 Hours.

Independent research projects.

Animal Production

ANPR 293. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

ANPR 298. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

ANPR 308. Animal Production Experience. 1-4 Hours.

Experience in operating a dairy or livestock farm, including layers or broilers, calving, lambing, or farrowing of hogs. (Can be repeated up to a maximum of 4 credits. 3 hr. lab./ per hr. of credit.).

ANPR 338. Horse/Livestock/Poultry Evaluation. 3 Hours.

Appraisal of horses, cattle, sheep, poultry, and swine. Evaluation of scientific techniques used in selecting those species. Tours of representative flocks, herds and stables will be required. (Two 3 hr. labs.).

ANPR 339. Advanced Evaluation of Animal Products. 1-4 Hours.

PR: FDSC 334 or ANPR 336 or ANPR 338 or consent. Advanced selection, evaluation and grading of domestic livestock species and animal products. Tours of representative flocks, herds and processing plants will be required. (Can be repeated up to a maximum of 4 credits. 3 hr. lab./per hr. credit.).

ANPR 350. Milk Production. 3 Hours.

PR: ANNU 260. Feeding and management of dairy cattle. (2 hr. lec., 3 hr. lab.)(Regional campus course requires 30 hours of work on the campus farm.).

ANPR 393. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

ANPR 492. Directed Study. 1-3 Hours.

Directed study, reading, and/or research.

ANPR 495. Independent Study. 1-6 Hours.

Faculty supervised study of topics not available through regular course offerings.

ANPR 497. Research. 1-6 Hours.

Independent research projects.

Agriculture and Resource Economics

ARE 110. Agribusiness Accounting. 3 Hours.

Introduction to accounting for agricultural, rural, and small business managers. Emphasis on the accounting cycle, analysis and interpretation of financial statements, income taxes, and managerial accounting. (Students having prior college credit in accounting are not eligible for this course.).

ARE 150. Introductory Agricultural and Agribusiness Economics. 3 Hours.

Introduction to basic agricultural economics and agribusiness concepts, and the application of these concepts to agricultural and agribusinesses issues.

ARE 204. Agribusiness Management. 3 Hours.

Overview of the agribusiness decision-making process, and the functions of agribusiness management; analysis of financial statements and budgeting for evaluating profitability of alternative enterprises and practices.

ARE 220. Introductory Environmental and Resource Economics. 3 Hours.

Economic analysis of environmental pollution, natural resource conservation and management, outdoor recreation, public land use, wildlife resources, water use, property rights, and benefit-cost issues.

ARE 298. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

ARE 393. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

ARE 492. Directed Study. 1-3 Hours.

Directed study, reading, and/or research.

ARE 497. Research. 1-6 Hours.

Independent research projects.

Art History

ARHS 101. Landmarks of World Art. 3 Hours.

Introduction to the study of art history from prehistory to the present in which major landmarks of world art and architecture are considered as aesthetic objects, cultural documents and within their socio-historical contexts.

ARHS 298. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

ARHS 490. Teaching Practicum. 1-3 Hours.

PR: Consent. Teaching practice as a tutor or assistant.

ARHS 492. Directed Study. 1-3 Hours.

Directed study, reading, and/or research.

ARHS 496. Senior Thesis. 1-3 Hours.

PR: Consent.

Astronomy

ASTR 106. Descriptive Astronomy. 3 Hours.

The celestial sphere, star time, solar time, Kepler's laws, H-R diagram and modern developments. No sophisticated mathematics used; only simple geometrical arguments employed.

ASTR 298. Honors. 1-3 Hours.

PR: Students in Honors Program and consent by the honors director. Independent reading, study, or research.

ASTR 393. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

ASTR 490. Teaching Practicum. 1-3 Hours.

PR: Consent. Teaching practice as a tutor or assistant.

ASTR 492. Directed Study. 1-3 Hours.

Directed study, reading, and/or research.

ASTR 493. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

ASTR 495. Independent Study. 1-6 Hours.

Faculty supervised study of topics not available through regular course offerings.

ASTR 497. Research. 1-6 Hours.

Independent research projects.

Athletic Training

ATTR 121. Sport Injury Control and Management. 3 Hours.

Training, conditioning, protection, and other injury prevention measures. First aid, emergency service, and care related to physical education and athletics.

ATTR 122. Sports Injury Control and Management Lab. 1 Hour.

PR: Consent. Basic skills in athletic conditioning, application of taping and bracing, equipment fitting, record keeping, modality set-up, emergency procedures for athletic-related injuries and the proper management of open wounds. Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

Biology

BIOL 101. General Biology. 3 Hours.

PR or CONC: BIOL 103. Introductory course in biology: cellular, organismal, and population genetics, including reproduction, growth and development, and evolution.

BIOL 102. General Biology. 3 Hours.

PR or CONC: BIOL 104. Introductory biology: energetics and physiology of cells, organisms, and populations, including regulation and control of multicellular organisms.

BIOL 103. General Biology Laboratory. 1 Hour.

PR or CONC: BIOL 101. Experiments in biology: genetics and evolution; reproduction, growth, and development of cells, organisms, and populations.

BIOL 104. General Biology Laboratory. 1 Hour.

PR or CONC: BIOL 102. Experiments in biology: materials exchange, actions of enzymes, photosynthesis and respiration, and physiology of organisms.

BIOL 107. Biotechnology and Society. 3 Hours.

An overview of the use of biotechnology to solve agricultural, medical, and environmental problems. Bioethical concerns and societal impacts of the use of the technologies will be discussed.

BIOL 108. Drugs and the Body. 3 Hours.

An overview of how common prescription, street and over-the-counter drugs alter body functions. How the body absorbs and metabolizes various drugs, drug interactions, and the biology of addiction will also be presented.

BIOL 115. Principles of Biology. 3 Hours.

PR or CONC: BIOL 116. An introductory course presenting basic principles of modern biology. This course represents the first in a four-course, integrated sequence required of biology majors. Topics include ecology and evolution, organismal biology, and cellular/molecular biology.

BIOL 116. Principles of Biology Laboratory. 1 Hour.

PR or CONC: BIOL 115. BIOL 116 is the corequisite laboratory course associated with BIOL 115 lecture. This laboratory course emphasizes the proper understanding and use of the scientific method to design and perform biological experiments. Discipline-specific communication techniques, including scientific writing, are also emphasized.

BIOL 117. Introductory Physiology. 3 Hours.

PR: (BIOL 115 and BIOL 116) or (BIOL 101 and BIOL 102 and BIOL 103 and BIOL 104) and PR or CONC: BIOL 118. Continuation of BIOL 115. The diversity of reproductive, developmental, functional, and integrative mechanisms in plants and animals.

BIOL 118. Introductory Physiology Laboratory. 1 Hour.

PR: (BIOL 115 and BIOL 116) or (BIOL 101 and BIOL 102 and BIOL 103 and BIOL 104) and PR or CONC: BIOL 117. BIOL 118 is the corequisite laboratory course associated with BIOL 117 lecture. This laboratory is a continuation of BIOL 116 and utilizes themes from plant and animal physiology to enhance student skill when applying the scientific method. Emphasis is placed on experimental design and discipline-specific communication methods.

BIOL 216. Biochemistry for Pre-Pharmacy. 3 Hours.

BIOL 216. Biochemistry for Pre-Pharmacy. PR: BIOL 115 and BIOL 117 and BIOL 219 and 8 hours of general chemistry and CHEM 233 and CHEM 235 and PR or CONC: CHEM 234 and CHEM 236. Introduction to the chemistry of cellular constituents (amino acids, proteins, enzymes, coenzymes, carbohydrates, lipids, nucleotides, and nucleic acids) and their metabolism in humans. Topics also include enzyme kinetics and mechanisms, structure and functions of biomembranes, metabolic pathways, and mechanisms regulating metabolism and gene expression. This course is offered only to Pre-Pharmacy majors.

BIOL 219. The Living Cell. 3 Hours.

PR: (CHEM 115 or CHEM 117) and ((BIOL 117 and BIOL 118) or BIOL 240) and PR or CONC: BIOL 220. This is the third course in the core curriculum required for biology-related majors. It will expand on topics from BIOL 115/117, especially with regard to cell chemistry, bioenergetics, cell physiology and gene expression.

BIOL 220. The Living Cell Laboratory. 1 Hour.

PR: (CHEM 115 or CHEM 117) and ((BIOL 117 and BIOL 118) or BIOL 240) and PR or CONC: BIOL 219. BIOL 220 is the laboratory that accompanies BIOL 219 (The Living Cell).

BIOL 221. Ecology and Evolution. 3 Hours.

PR: BIOL 219. Basic concepts in evolution and ecology including Darwin's theory of natural selection, modern population genetics, speciation, population growth and regulation, demography, community ecology, ecosystem dynamics, and human ecology.

BIOL 230. Human Anatomy and Physiology 1. 4 Hours.

PR: PSC sections require BIOL 102 and BIOL 104 or nursing major or consent, WVUIT sections require BIOL 112. The study of human body structure and function. Lecture emphasizes the integumentary, skeletal, muscular, and nervous systems, and special senses. Laboratory includes a complete cat dissection.

BIOL 231. Human Anatomy and Physiology 2. 4 Hours.

PR: PSC sections require BIOL 230 and Nursing major or consent, WVUIT sections require BIOL 230. A continuation of BIOL 230. The following systems are thoroughly studied: endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive. Laboratory work involves physiological investigations and dissections.

Business Core

BCOR 199. Introduction to Business. 3 Hours.

This course introduces the student to the major business disciplines, basic business communications, and the University environment.

Business Technology

BTEC 101. Introduction to Management. 3 Hours.

An introduction to principles and basic considerations of management of all levels, including aspects of management performance in areas of decision-making, planning, organizing, control, and ethics.

BTEC 102. Introduction to Business. 3 Hours.

A course designed to introduce students to the internal organization of business by surveying finance, marketing, ethics, law, and information management. Business structures, changes, will be analyzed. Emphasis will also be placed on the effect of global competition and international marketing.

BTEC 103. Personnel Management. 3 Hours.

Theory and practice and principles involved in the direction, coordination, and payrolls of personnel.

BTEC 104. Marketing. 3 Hours.

Principles and practice of the activities through which small business establishments direct the flow of goods and services to consumers.

BTEC 106. Document Solutions. 3 Hours.

An introduction to document generation through word processing and desktop publishing programs and the significance it serves to business applications. This course provides the skills and knowledge necessary to use features of these programs and apply them to business.

BTEC 107. Business Communications. 3 Hours.

PR: 6 hrs. of English composition. A study of the vocabulary and techniques of business writing as applied to various forms of research and reporting. Correct English usage in modern business forms and letters.

BTEC 108. Business Organization and Management: Finance. 3 Hours.

A course introducing the student to an overview of business including the management of financing the various forms of business organization. Vocational guidance is given. Emphasis on proper terminology.

BTEC 109. Business Mathematics. 3 Hours.

A study of the fundamental processes, and of banking procedures, percentage, discount, interest, depreciation, investments, payrolls, and insurance.

BTEC 113. Spreadsheet Applications. 3 Hours.

Exploration of using spreadsheets as a problem-solving tool for business and industry. Design and create professional spreadsheets to collect, organize, and store data; basic formulas and built-in functions used to convert data into meaningful information such as budgets, data tables, and amortization schedules; formatting techniques, charts, and graphs, employed to enhance the visual presentation of data.

BTEC 114. Production, Quality, and Cost Control. 3 Hours.

Introduction to management decisions in a manufacturing environment. The course develops student understanding of the management task of designing and operating efficient productive systems, including planning and control, linear programming, budgets, goals, and objectives.

BTEC 115. General Insurance. 3 Hours.

Theory of risk and its application to insurance; principles underlying insurance- life, property, casualty, fire and surety. (Offered when sufficient demand is evident.)

BTEC 116. Real Estate. 3 Hours.

Principles and practices of real estate business; meets West Virginia Real Estate Commission requirements for licensing purposes. (Offered when sufficient demand is evident.)

BTEC 117. Human Resources Management. 3 Hours.

Consideration of problems faced by managers in managerial fields of industry, including wages, safety, medical and insurance programs, retirement programs, employee records, counseling, training, and other employment issues.

BTEC 118. Work Simplification, Time Study, Incentives. 3 Hours.

An introduction to processes of work simplification, time study principles and practices, incentives in relation to production, management and control.

BTEC 119. Managerial Decision-Making. 3 Hours.

An integrated study of forces which affect managerial decision-making, both internally and externally. An examination of organizational problems, development of alternate solutions, and implementation of an effective plan of action.

BTEC 120. Database Applications. 3 Hours.

Exploration of concepts and techniques utilized to build and maintain a database management system. Design and create relational databases to store, retrieve, organize, and analyze large amounts of data; queries, forms, and reports, generated to transform data into meaningful information for use in the world of business and industry.

BTEC 152. Principles of Management Information Systems. 3 Hours.

This course introduces students to the skills and knowledge required to effectively support stable and secure business environments using technology.

BTEC 200. Customer Service Relations. 3 Hours.

Students are introduced to customer service relation topics and methods for handling customer service issues in various industries. The elements of a systematic process for building the necessary customer service skills are explored.

BTEC 205. Introduction to Online Marketing. 3 Hours.

An overview of social media strategies is presented to develop a social media market plan. Effective techniques to identify target markets on the social web and select the appropriate social media platforms to optimize marketing goals are investigated.

BTEC 210. Practicum in Business Technology: Spreadsheets and Database. 3 Hours.

A course designed for those interested in staying abreast of technological advances in the use of state-of-the-art equipment; encompasses practical application and use of computers for business as well as home use; highly recommended for those desiring hands-on experience.

BTEC 211. Introduction to Event Logistics. 3 Hours.

An introduction to the foundations of event planning and the significance it serves to business applications. Aspects of event planning and coordination, including site development, control and troubleshooting strategies, marketing and promotional tactics, and food operations. Students coordinate an event that takes place on campus.

BTEC 212. Business Law. 3 Hours.

A study of the fundamentals of law as applied to contracts, agency, negotiable instruments, sales, partnerships, corporations, insurance, and property.

BTEC 218. Medical Billing and Coding. 3 Hours.

An introduction to medical coding and billing. The course will cover a variety of medical specialties and issues involved with procedural coding. Insurance carriers, billing requirements and specific forms will be introduced and completed.

BTEC 220. Labor Relations. 3 Hours.

The development, structure, and functions of laborer and employer in their impact on society; essentials of contract negotiations and arbitration wage policies and problems, basic labor legislation.

BTEC 221. Advanced Real Estate. 3 Hours.

PR: BTEC 116. Continuation of BTEC 116. Financing techniques of real estate loans will be discussed, as well as the sources of real estate law, both cases and statutes, and includes basic real estate appraising. Meets West Virginia Real Estate Commission requirements for licensing purposes. (Offered when sufficient demand is evident.).

BTEC 222. Salesmanship. 3 Hours.

A study of techniques appropriate to personal selling, both retail and contact, as well as the psychological and human factors involved in sales. Students will conduct and present sales presentations.

BTEC 223. Advertising. 3 Hours.

Overview of advertising and sales promotion, development of sales strategies, promotional planning, media selection, and layout.

BTEC 225. Directed Experience. 3 Hours.

PR: Business technology major with sophomore standing. Students are placed in appropriate work sites in the community and surrounding area to participate in an on-the-job training experience.

BTEC 253. Intermediate Accounting. 3 Hours.

PR: ACCT 202. An advanced study of accounting theory and practice as applied to business firms, asset valuation, liabilities, and income determination.

BTEC 254. Intermediate Accounting. 3 Hours.

PR: BTEC 253. A continuation of BTEC 253.

BTEC 256. Managerial Accounting. 3 Hours.

PR: ACCT 202. The theory and practice of managerial accounting for small businesses.

BTEC 257. Income Tax Accounting. 3 Hours.

PR: ACCT 202 or consent. Preparation of income tax returns: gross income, capital gains, and losses, deductions, tax credits, and other tax regulations mainly pertaining to individuals.

BTEC 258. Income Tax Accounting. 3 Hours.

PR: BTEC 257 or consent. A continuation of BTEC 257. Preparation of income tax returns and study of tax regulations pertaining to partnerships, estate, trusts, and corporations. Also considered will be social Security taxes and federal gift tax.

BTEC 260. Computerized Accounting. 3 Hours.

PR: ACCT 201. This course covers pc-based accounting systems.

BTEC 293. Special Topics. 1-6 Hours.

Investigation of topics not covered in regularly scheduled courses.

BTEC 295. Entrepreneurship. 3 Hours.

An introduction to the entrepreneurial mindset and its significance to the economy and local communities. Students will develop resources to create and evaluate entrepreneurial opportunities.

BTEC 320. Personal Finance. 3 Hours.

Provides the tools and knowledge for personal short- and long-term financial success; includes the topics of financial planning, money management, income and asset protection, investments, and retirement planning.

BTEC 340. Human Resource Management. 3 Hours.

A study of policies, practices, and systems that influence employees' behavior, attitudes, and performance.

BTEC 350. Advanced Computer Applications in Business. 4 Hours.

PR: CIS 114 and CIS 116 or consent. A study of advanced information concepts for managing business in a competitive environment. The internet, spreadsheet, and database applications will be utilized to research, analyze, and make decisions regarding operations.

BTEC 357. Essentials of Income Taxation. 3 Hours.

PR: ACCT 202 or consent. A study of federal income tax for individuals with a focus on exemptions, credits, deductions, gross income, capital gains and losses.

BTEC 360. Leadership and Human Behavior. 3 Hours.

A study of leadership in relation to employee motivation, decision- making, and team dynamics. Additional topics include ethics and responsibility, diversity, organizational control, and managing change in the workplace.

BTEC 365. Leaders Through History. 3 Hours.

Introduction of ideas and skills to prepare students for leadership positions in the community. whether this is in the workforce (small business, corporations), non-profit organizations, or any civic involvement in their community.

BTEC 370. Intermediate Accounting. 3 Hours.

PR: ACCT 201 and ACCT 202. A study of accounting theory including a review of the accounting cycle. Topics include income recognition, asset valuation, liabilities, current tax regulations, corporate ownership equity, and analysis of accounting data.

BTEC 380. Business Ethics. 3 Hours.

A study of ethical, cultural, and societal issues facing business and managers with regard to a global business environment.

BTEC 393. Special Topics. 1-6 Hours.

Investigation of topics not covered in regularly scheduled courses.

BTEC 405. Inbound Marketing. 3 Hours.

This course will cover the fundamentals of using inbound marketing. Students will apply the engagement strategies for a business throughout the semester via multiple business social media platforms.

BTEC 485. Senior Seminar. 4 Hours.

PR: BTEC 350 and BTEC 370. A capstone course in which the students will integrate the concepts and principles of the B.A.S. management emphasis through the process of case analysis and other methods.

BTEC 493. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

Business Administration

BUSA 201. Survey of Economics. 3 Hours.

Introduction to the analysis of the economic system. Pricing system, monetary system, determination of all national income and employment.

BUSA 310. Survey of Business Law. 3 Hours.

PR: Sophomore standing. Overview of business law discipline. Topics include laws and the court system, employment and labor law, business forms and capitalization, business competition law and business ethics.

BUSA 320. Survey of Management. 3 Hours.

PR: Sophomore standing. Overview of management discipline as a process involving planning, organizing, controlling and directing. An integrated view of management including organizational behavior is emphasized.

BUSA 330. Survey of Marketing. 3 Hours.

PR: Sophomore standing. Overview of the marketing discipline. Topics include the management of the product, communication, price and distribution variables as well as an introduction to buyer behavior and marketing research.

BUSA 340. Survey of Finance. 3 Hours.

PR: Sophomore standing. Overview of the finance discipline. Topics include financial statement analysis, risk, capital budgeting, investments, and security markets.

Child Development and Family Studies

CDFS 110. Families Across the Life Span. 3 Hours.

Explores the physical, psychological, and cognitive developmental changes of individuals who are functioning in family systems that change across the life-span.

CDFS 112. Introduction to Marriage and Family. 3 Hours.

Explores various dimensions of self-development and personal preference relevant to dating, mate selection, marriage, having children, parenting, divorce, and remarriage.

CDFS 172. Health, Safety, & Nutrition in Early Childhood. 3 Hours.

Examines physical, nutritional, and safety needs that influence the growth and development of young children including non-medical-professional emergency training for the sick and injured leading to adult, child, and infant basic life support, CPR/AED and first aid certification.

CDFS 210. Introduction to Parenting. 3 Hours.

Introduction of terminology, descriptions, and explanations of the parental role and parent-child interactions. Emphasis on social and personal definitions of the parental role and on the problems and changes in parent-child relationships.

CDFS 211. Infant Development. 4 Hours.

PR: CDFS 110. Developmental characteristics and environmental effects on the child during the prenatal period and the first two years with implications for guidance and care, includes practical experience working with infants and toddlers.

CDFS 212. Early Childhood Development. 3 Hours.

PR: CDFS 110. Physical, social, emotional, and cognitive development of children from conception to seven years with implications for guidance and care in practical settings.

Chemistry

CHEM 111. Survey of Chemistry 1. 4 Hours.

PR: WVU sections require MATH 122 or MATH 124S or MATH 126S with a minimum grade of C- or ALEKS Score of ML 20 or Math ACT Score of 22 or Math SAT Score of 540 or Math SAT (March 2016) Score of 570 or PR or CONC: MATH 126A or MATH 126B or MATH 126C or MATH 129 or MATH 150 or MATH 153 or MATH 155, WVUIT and PSC sections require MATH 122 or MATH 124S or MATH 126S with a minimum grade of C- or ALEKS Score of ML 10 or Math ACT Score of 19 or Math SAT Score of 460 or Math SAT (March 2016) Score of 500 or PR or CONC: MATH 126A or MATH 126B or MATH 126C or MATH 129 or MATH 150 or MATH 153 or MATH 155 and PR or CONC: CHEM 111L. Designed primarily for students taking only one year of college chemistry. Atomic structure; chemical bonding; acids, bases, and salts; periodicity; properties of gases, liquids, and solids; stoichiometry; oxidation-reduction. (3 hr. lecture) (Students may not receive credit for CHEM 115 or CHEM 117 and for CHEM 111.).

CHEM 111L. Survey of Chemistry 1 - Laboratory. 0 Hours.

PR or CONC: CHEM 111. Survey of Chemistry 1 - CHEM 111 Laboratory.

CHEM 112. Survey of Chemistry 2. 4 Hours.

PR: CHEM 111 and PR or CONC: CHEM 112L. Continuation of CHEM 111. Nuclear chemistry; air and water pollution; useful natural materials; consumer chemistry; introduction to organic and biochemistry. (3 hr. lec.) (Students may not receive credit for CHEM 116 or CHEM 118 and for CHEM 112.) (CHEM 111 and CHEM 112 cannot be used as pre-requisite courses for organic chemistry).

CHEM 112L. Survey of Chemistry 2 - Laboratory. 0 Hours.

PR or CONC: CHEM 112. Survey of Chemistry 2 - CHEM 112 Laboratory.

CHEM 115. Fundamentals of Chemistry. 3 Hours.

PR: Satisfactory ACT/SAT or placement exam performance, or WVU sections require CHEM 110B with a minimum grade of C- or MATH 129 or higher with a minimum grade of C-, PSC sections require MATH 124 or MATH 126 or PR or CONC: MATH 128 or higher with a minimum grade of C-, WVUIT sections require PR or CONC: MATH 126 or MATH 129, and PR or CONC: CHEM 115L. For students who need more than one year of college chemistry and quantitative relationships on which subsequent chemistry courses are built. (3 hr. lec.) (Students may not receive credit for CHEM 117 and CHEM 115.) Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

CHEM 115L. Fundamentals of Chemistry 1 - Laboratory. 1 Hour.

PR or CONC: CHEM 115. Fundamentals of Chemistry 1 - CHEM 115 Laboratory.

CHEM 116. Fundamentals of Chemistry. 3 Hours.

PR: CHEM 115 and CHEM 115L and PR or CONC: CHEM 116L with a minimum grade of C- in all. Continuation of CHEM 115 & CHEM 115L. (3 hr. lec., 3 hr. lab.) (Students may not receive credit for CHEM 118 and for CHEM 112 or CHEM 116.) Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

CHEM 116L. Fundamentals of Chemistry 2 - Laboratory. 1 Hour.

PR or CONC: CHEM 116. Fundamentals of Chemistry 2 - CHEM 116 Laboratory.

CHEM 233. Organic Chemistry. 3 Hours.

PR: (CHEM 116 or CHEM 118) and PR or CONC: CHEM 235 with a minimum grade of C- in all. Basic principles of organic chemistry. Modern structural concepts, the effect of structure on physical and chemical properties, reactions and their mechanisms and application to syntheses. (3 hr. lec.) (Students may not receive credit for CHEM 233, CHEM 234, and for CHEM 231.).

CHEM 234. Organic Chemistry. 3 Hours.

PR: CHEM 233 and CHEM 235 and PR or CONC: CHEM 236 with a minimum grade of C- in all. Continuation of CHEM 233 and its study of basic principles of organic chemistry. Modern structural concepts, the effect of structure on physical and chemical properties, reactions and their mechanisms and application to syntheses. (3 hr. lec.).

CHEM 235. Organic Chemistry Laboratory. 1 Hour.

PR or CONC: CHEM 233 with a minimum grade of C-. Fundamental organic reactions and the preparation of organic compounds. (3 hr. lab.).

CHEM 236. Organic Chemistry Laboratory. 1 Hour.

PR: CHEM 233 and CHEM 235 and PR or CONC: CHEM 234 with a minimum grade of C- in all. Continuation of CHEM 235 and its study of fundamental organic reactions and the preparation of organic compounds. (3 hr. lab.).

Community Health Promotion

CDFS 172. Health, Safety, & Nutrition in Early Childhood. 3 Hours.

Examines physical, nutritional, and safety needs that influence the growth and development of young children including non-medical-professional emergency training for the sick and injured leading to adult, child, and infant basic life support, CPR/AED and first aid certification.

Computer Information Systems

CIS 100. Introduction to Computer Information Systems. 3 Hours.

Introductory survey of the needs for and roles of computer information systems in business organizations. Emphasis is hardware functions, systems development, DOS, Windows, and computer operations.

CIS 102. Introduction to Business Application Programming. 3 Hours.

A language independent course on computer program design and development using modern methods of analysis, design and development of program logic.

CIS 103. Computer System Development. 3 Hours.

PR: CIS 100. A study of established and evolving methodologies for the development of business oriented computer information systems. Students utilize a structures approach to defining, creating and implementing new systems.

CIS 106. PC Hardware Concepts. 3 Hours.

This course provides hand-on experience and skill development necessary to install, service, and support microcomputers. This course also covers A+ core competencies.

CIS 107. Operating Systems Concepts. 3 Hours.

PR: CIS 100. Introduction to the operating system of a modern general purpose digital computer. The student studies the organization of an operating system and its control language.

CIS 108. Data Communications. 1 Hour.

PR: CIS 100. Introduction to data communication fundamentals including communication media, protocols and network connectivity.

CIS 109. Networking Essentials. 3 Hours.

Provides introduction to computer network components, network architecture and data communication fundamentals. Covers essential competencies contained in Network + certification.

CIS 110. Data Management Concepts. 3 Hours.

PR: CIS 100. Provides hands-on introduction to modern database management software. The student designs file structures, performs queries, develops reports and develops database programs using a database language.

CIS 112. Intro to Networking and Security. 3 Hours.

The course is an introduction to concepts terms and basic skills required in the network and security courses offered in the CIS degree. The course emphasizes fundamentals of networking such as trouble shooting and best practices in personal and small business and security implementation.

CIS 113. Microsoft Application 1: WORD. 3 Hours.

PR: CIS 100. This course provides a survey of computer applications in business with emphasis on word processing.

CIS 114. Microsoft Application 2: EXCEL. 3 Hours.

PR: CIS 100 or CIS 106. The student continues the study of microcomputer applications acquiring further skills in the use of spread sheets such as Excel.

CIS 115. Microsoft Application 3: POWER POINT. 3 Hours.

PR: CIS 100 or CIS 106. The student continues the study of microcomputer applications acquiring further skills in presentation software such as PowerPoint.

CIS 116. Microsoft Application 4: Access. 3 Hours.

PR: CIS 100 or CIS 106. The student continues the study of microcomputer applications acquiring further skills in the use of database software such as Access.

CIS 117. Microsoft Application 5: OUTLOOK. 3 Hours.

PR: CIS 113 and CIS 114 and CIS 116. Provides hands-on experience and skills development necessary to perform basic and advanced functions of Microsoft Outlook and integrate with Microsoft applications.

CIS 118. Web Page Design. 3 Hours.

Provides hands-on experience and skills development necessary to perform basic and advanced functions in designing and developing web pages and an introduction to a variety of web software tools.

CIS 119. Web Page Development. 3 Hours.

Develops skills necessary to design and create complex web pages.

CIS 207. Operating Systems Concepts 2. 3 Hours.

PR: CIS 107. Operating system structures, process and thread handling, memory access, and storage structure will be covered including how files are organized and accessed by an operating system.

CIS 220. Microsoft Application 6. 3 Hours.

Provides hands-on experience and skills development necessary to perform project management using software such as MS Project.

CIS 221. Microsoft Network Administration 1. 3 Hours.

Provides skills necessary to install, configure, customize, network, integrate and troubleshoot Windows Workstation Operating System.

CIS 222. Microsoft Network Administration 2. 3 Hours.

PR: CIS 221. Provides skills necessary to perform day-to-day administration of Windows Server Operating System.

CIS 223. Microsoft Network Administration 3. 3 Hours.

PR: CIS 222. Provides skills necessary to install, configure, customize, network integrate, and trouble shoot Windows Server Operating System.

CIS 224. Microsoft Network Administration 4. 3 Hours.

PR: CIS 223. Provides skills necessary to install, configure, customize, network, integrate, and trouble shoot Windows Server Directory Services.

CIS 225. Internet Essentials 1. 3 Hours.

CIS 225. Internet Essentials 1. 3Hr. PR: CIS 106 and CIS 109. Provides skills necessary to install, configure, customize, and network and intergrate Internet technologies. Covers competencies contained in the Inet + certification.

CIS 226. Photoshop Essentials. 3 Hours.

Provides skills necessary to manipulate raster and vector images using image management software such as Photoshop and illustrator.

CIS 227. Supporting Internet Explorer. 3 Hours.

Provides skills necessary to plan, implement, and support Microsoft Internet Explorer using the administration kit on Windows Server Operating Systems.

CIS 228. E-Commerce. 3 Hours.

PR: CIS 118. Provides an understanding of the fundamentals of e-commerce. This includes designing and developing e-commerce applications.

CIS 229. Digital Video Essentials. 3 Hours.

Provides skills necessary to design, capture, edit, and author DVDs and digital video movies using digital video editing software such as Adobe Premier.

CIS 230. Programming Language 1: C. 3 Hours.

PR: CIS 100 and CS 110 and CS 111. An introduction to programming using C language syntax, functions, arrays, pointers, structures and files. Numerous exercises involving the use of C will be assigned.

CIS 232. Visual Basic Programming 1. 3 Hours.

Develop intermediate-level skills to design, develop, write, and debug programs using Visual Basic.

CIS 233. Visual Basic Programming 2. 3 Hours.

Develop advanced -level skills to design, develop, write, and debug programs using Visual Basic.

CIS 234. Computer Graphics-Illustrator. 3 Hours.

Provides skills necessary to create illustrations and graphics using Adobe Illustrator. Course covers drawing, typography, paths effects, layers, masks, blends, patterns, and color.

CIS 236. Introduction to Cyber Security. 3 Hours.

this course gives students an introduction to computer and network security procedures. A hands-on approach is used to cover securing network services, devices, traffic, and responding to network breaches.

CIS 237. Linux Operating Systems. 3 Hours.

This course introduces the student to Linux operating system. Topics include installation, configuration, and management of Linux in a network setting. Material covered will allow students to take the CompTIA Linux+ certification exam.

CIS 238. Graphic Digital Design. 3 Hours.

This course covers the Adobe Suite applications of Photoshop, Illustrator and In-Design. The student acquires a working knowledge of the applications thorough a project-based approach and creates a portfolio project.

CIS 240. System Development Project. 3 Hours.

PR: CIS 100 and CIS 103. An independent study requiring the student to complete all phases of a computer oriented project from system design to implementation on a computer.

CIS 241. Networking Fundamentals. 4 Hours.

Topics include OSI model, network topologies, IP addressing, networking components, and basic network designs. (Lab fee required.) (Course is part of Cisco Academy.).

CIS 242. Routing Theory and Router Technologies. 4 Hours.

Topics include beginning router configurations, routing and routing protocols, and LAN switching. (Lab fee required.) (Course is part of Cisco Academy.).

CIS 243. Advanced Routing and Switching. 4 Hours.

Topics include advanced router configuration, LAN switching, network management, and advanced network design. (Lab fee required.) (Course is part of Cisco Academy.).

CIS 244. Project Based Learning. 4 Hours.

Advanced network design projects and advanced network management projects. (Lab fee required.) (Course is part of Cisco Academy.).

CIS 245. Applied Programming. 3 Hours.

This course will provide students a comprehensive understanding and application of programming methods through practical projects.

CIS 248. System Analysis and Design. 3 Hours.

Students learn how to translate business requirements into information systems that support a company's short and long-term objectives. CIS students apply analytical and problem-solving skills to business needs and are introduced to traditional structured analysis, object-oriented concepts, and agile methods.

CIS 250. Directed Computer Experience 1. 3 Hours.

PR: CIS 100 and CIS 103. Students are placed into practical working situations where they are involved in problem resolution, programming, system design or other areas as deemed appropriate.

CIS 251. Directed Computer Experience 2. 2 Hours.

PR: CIS 250. A continuation of CIS 250 with emphasis on the independent solution of problems by the student.

CIS 252. Database Design 1. 3 Hours.

The course provides instruction beyond a general understanding of database structure and data types for the CIS student. The student will create database objects based on requirements and business rules. It emphasizes the connection of business processes and database for business reporting and analytics.

CIS 255. Computer Graphic Production. 3 Hours.

A course on the mechanics of the Corel Draw program and its application in desktop publishing.

CIS 293. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

CIS 318. Project Management. 3 Hours.

The course is designed to provide the CIS student with knowledge and skills to manage an Information Technology project. The student will not only use tools for assessing the progress of a project, he or she will apply key elements of project management such as: Gantt charts, rough order of magnitude (ROM), Program Evaluation and Review Technique (PERT) as well.

CIS 327. Cloud Computing. 3 Hours.

PR: CIS 112 or consent. CIS students will analyze software as a service (SaaS), platform as a service (PaaS), and infrastructure as a service (IaaS) within the constructs of cost, security, and business needs. Virtualization, cloud security, and managing cloud services are covered as an integral part of the final determination as to whether the service is a benefit to a business enterprise.

CIS 338. Computer and Network Forensics. 3 Hours.

PR: CIS 236 with a minimum grade of C-. The course provides the CIS student with skills the tools, techniques, and methods to perform computer forensics and investigation. An overview of performing forensics in the Windows, Linux, and Macintosh operating systems is covered. The student will be exposed to emerging technologies and future directions in the field in the creation of legally defensible documentation and chain of custody.

CIS 367. Applied Programming 2. 3 Hours.

PR: CIS 245 with a minimum grade of C-. The course applies object oriented design (OOD) to the study of data structures and algorithms such as lists, stacks, queues, trees, recursion and sorting in an object oriented programming language. The CIS student will apply programming logic and advanced object oriented programming techniques to create a programmatic business solution.

CIS 393. Special Topics. 1-6 Hours.**CIS 417. Database Design 2. 3 Hours.**

PR: CIS 252 with a minimum grade of C-. This course provides the CIS student the skills required to continue study in the CIS major as it applies to data mining and business intelligence and advanced programming. The course identifies and describes the key concepts, tips, techniques, and best practices needed to take full advantage of stored procedures using SQL Server's native Transact-SQL and .NET compatible programming languages.

CIS 438. Network Defense. 3 Hours.

PR: CIS 236 with a minimum grade of C-. This course provides the CIS student with skills in network defense and penetration testing. The student learns to apply creativity in the interpretation and analysis of results to determine the optimal next steps in defending a network.

CIS 440. Cyber Ethics. 3 Hours.

PR: CIS 236 or BTEC 380 with a grade of C- or better. The course introduces key ideas in moral theory and professionalism to explore the current topics in computer ethics. CIS students apply critical thinking skills in the convergence of technical solutions with moral and social implications affecting business needs and personal information in communications and social networks.

CIS 442. Data Mining and Business Intelligence. 3 Hours.

PR: CIS 252 with a minimum grade of C- and (STAT 111 or STAT 211) with a minimum grade of C-. This course presents methods of data mining and analytics to uncover hidden patterns and correlations. The CIS student will apply these methods to improve business decision-making. Data mining processes, methods, and techniques; the role and management of data; and integration with Big Data approaches will be covered.

CIS 488. BAS CIS Capstone. 3 Hours.

PR: CIS 489 with a minimum grade of C- and nine (9) hours in upper level electives in the CIS major. The BAS CIS student will demonstrate the ability to integrate skills and knowledge acquired in Computer Information System courses. The individual project and its presentation demonstrate critical thinking and reasoning in the computer information system technologies.

CIS 489. System Analysis & Design 2. 3 Hours.

PR: CIS 248 and CIS 252 with a minimum grade of C- in each. The CIS student will apply software, system and database knowledge from previous course work to create and update detailed technical documentation required in an information technology project. These may include Concept of Operations, Requirement, Database Design Documentation as well as System or Programming design documentation based on the IEEE standard used in both the private and public sector.

Criminal Justice

CJ 101. Introduction to Criminal Justice. 3 Hours.

This course examines the history, structure, functions and issues related to criminal law, law enforcement, criminal adjudication, and corrections. The course also examines criminological theories and research, and the juvenile justice system. (Equivalent to SOCA 234).

CJ 111. Police Operations. 3 Hours.

The student will be introduced to the day-to-day duties of a police officer. Emphasis will be placed on community and human relations, patrol and traffic functions, order maintenance, report writing, investigations, communications, interviewing, search, and seizure, and arrest. Police stress and survival skills will also be discussed.

CJ 201. Traffic Law Enforcement. 3 Hours.

PR: CJ 101. The role of the police officer in traffic control and enforcement is examined in detail. Among the topics studied will be West Virginia traffic law, accident investigation and reconstruction, traffic education, and the interrelations of local, state, and federal agencies responsible for traffic functions.

CJ 202. Principles of Criminal Law. 3 Hours.

This course focuses on the history, scope, purpose, and definition of the criminal law. Topics include crimes against person, crimes against property, other offenses, interpretation of statutes, legal definitions of specific criminal offenses, rights of the accused, pre-trial procedures, the criminal trial, sentencing, and the appeal process.

CJ 203. West Virginia Criminal Procedure. 3 Hours.

This course introduces the student to state rules and laws of procedure that are used to prosecute criminal defendants. Topics include rules and laws for prosecution in municipal, magistrate, and circuit courts.

CJ 204. Police Defense Tactics. 3 Hours.

The student will be exposed to the methods of physical protection, including the techniques of baton use, disarmament, and defense techniques.

CJ 206. Introduction to Corrections. 3 Hours.

A survey of the current correctional process in America which includes the origin and legal procedures of the present system and the effects of the system on the individuals as well as on our society. Special emphasis is given to current theories of rehabilitation in the institution and in probation and parole. Emphasis is also given to the administration of the adult and juvenile institutions and the alternatives and future of the present system.

CJ 209. Firearms. 3 Hours.

PR: CJ 101. This course addresses safety precautions, legal provisions, moral aspects, principles of decision shooting, and restrictions in the use of firearms. Nomenclature and the firing process of the sidearm and shotgun will be demonstrated.

CJ 210. Advanced Firearms. 3 Hours.

PR: CJ 209. A transitional training from revolver to semi-automatic handgun, advanced tactical shotgun and law enforcement rifle, including low- light level training. Course addresses safety precautions, legal provisions, moral aspects, principles of decision shooting, and restrictions in the use of firearms. Nomenclature and the firing processes will be demonstrated.

CJ 212. Abnormal Behavior & Crisis Intervention. 3 Hours.

PR: CJ 101. A study of the recognition and handling of abnormal persons with emphasis on those mental conditions most encountered by the criminal justice practitioner. Methods of crisis intervention, basic conflict management, and referral and diversion will also be discussed.

CJ 215. Criminal Justice System. 3 Hours.

PR: CJ 101. Introduces students to the agencies that form state criminal justice systems. Topics include law enforcement agencies, criminal courts, municipal courts, juvenile justice institutions, and corrections facilities.

CJ 220. Juvenile Justice Process. 3 Hours.

PR: CJ 101. Definitions of delinquent behavior; contributing social problems; adolescence as a subculture; the adjudication process for juveniles; sem-philosophy and practice; treatment procedures.

CJ 225. Criminal Procedure and Constitutional Law. 3 Hours.

PR: CJ 101. Constitutional and procedural issues relating to search and seizure, arrest, confinement; the admissibility and exclusion of evidence; types and degrees of evidence; discussion of court decisions interpreting the guarantees found in the Bill of Rights.

CJ 230. Probation and Parole Operations. 3 Hours.

PR: CJ 101. Daily activities in probation and parole. Emphasis on supervision and surveillance techniques, community risk assessment and classification, revocation and pre-sentence report investigations, and effective use of community resources.

CJ 233. Juvenile Justice. 3 Hours.

PR: CJ 101 or SOCA 234. The history, philosophy, and processes of the juvenile justice system are studied. The juvenile court's jurisdiction over juvenile delinquency, status offenses, and abuse and neglect is examined. Topics include juvenile rights, types of juvenile correctional institutions and community based correctional alternatives for juveniles.

CJ 236. Criminal Investigation. 3 Hours.

PR: CJ 101. This course will survey the fundamental techniques of criminal investigation. Students will be exposed to the history of criminal investigation and criminalistics, interviewing and interrogation, physical evidence, crime scene procedures, crime analysis, investigation techniques, report writing and case preparation, and courtroom testimony.

CJ 240. Correctional Counseling. 3 Hours.

A survey of contemporary counseling interventions for juvenile and adult offenders with an emphasis on cognitive and behavior modifications strategies. Other counseling models will also be examined.

CJ 245. Adjudication Process. 3 Hours.

PR: CJ 101. Role and structure of prosecution, public defense, and the courts; basic elements of the substantive criminal law; procedural law and its relation to constitutional guarantees.

CJ 255. Analysis of Correctional Operations. 3 Hours.

PR: CJ 206. Problems of management of the correctional process; programming, security, information systems, reports, case management, evaluation process; custody and discipline as they relate to rehabilitative efforts, community adjustment facilities; problems of probation and parole.

CJ 280. Victimology. 3 Hours.

A focused examination of the victims of crime. Concentration on the psychological and emotional harm experienced by victims and victim services and programs. Analysis of domestic violence, victim compensation, rights, and treatment throughout the criminal justice process.

CJ 285. Criminal Justice Technical Writing. 3 Hours.

PR: ENGL 101 and CJ 101. This course will focus on grammar and writing skills and transition into technical writing. Students will engage in such tasks as drafting resumes, learning APA style, writing criminal justice reports, and engaging in legal research/analysis/writing.

CJ 293. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

CJ 295. Field Practicum. 3 Hours.

PR: Sophomore status and a 2.0 GPA or higher. A supervised professional study conducted in a criminal justice field.

CJ 301. White Collar and Economic Crime. 3 Hours.

PR: CJ 101. Overview of white collar and economic crime in America including an examination of the extent of economic crime, law enforcement effectiveness, theories of causation, and methods of prevention. Also discussing the effect of the Internet on white collar and economic crime.

CJ 302. Terrorism. 3 Hours.

An examination of terrorism both domestic and foreign including its causes and trends. Also examining selected current cases, explanatory theories, methods of prevention or containment, and the effectiveness of law enforcement efforts.

CJ 310. Law Enforcement Administration. 3 Hours.

This course introduces the history of law enforcement in the United States, the roles of law enforcement officers, the purpose of policing, police conduct, police administration, and community relations.

CJ 315. Criminal Evidence. 3 Hours.

PR: CJ 225 or consent. Study of the rules of evidence and admissibility. Students will develop the ability to apply those rules in the collection and presentation of evidence in a court of law. Forensic requirements, statutory law, and other related issues will be emphasized.

CJ 316. Community Based Corrections. 3 Hours.

The history, philosophy, types and current trends in community based corrections is studied. Specifically, probation, parole, diversion programs, and intermediate sanctions including house arrest, community service, restitution, halfway houses, and temporary release are examined.

CJ 320. Courts and Judicial Systems. 3 Hours.

This course focuses on the structure and philosophy of the court system with special emphasis on court procedures, constitutional guarantees, the trial process, the role of judges, prosecutors, defense attorneys and juries.

CJ 324. Drugs, Crime and Society. 3 Hours.

PR: SOCA 101 and (CJ 101 or SOCA 234). Examines the fundamentals of mood-altering chemicals and their effects on the individual, the criminal justice system, and society. Addresses the current US policy regarding substance abuse, investigation, prevention, treatment, criminality, and education.

CJ 325. The Role of Women in Criminal Justice. 3 Hours.

Examination of how the roles of women in criminal justice have changed over time. Focus will be placed on women as practitioners, victims, and offenders.

CJ 380. Victimology. 3 Hours.

PR: ENGL 101. A focused examination on the victims of crime. Concentration on the psychological and emotional harm experienced by victims, victim services and programs. Analysis of victim compensation, victim rights, domestic violence, and victims' treatment throughout the criminal justice process. An overview of history and theory.

CJ 393. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

CJ 401. Research Methods in Criminal Justice. 3 Hours.

PR: STAT 111 or STAT 211. A general introduction to the process of research emphasizing research design, techniques of data collection including electronic methods, analysis and interpretation of research results as applied to the study of criminal justice.

CJ 410. Criminal Investigations. 3 Hours.

This course focuses on that aspect of the American legal and judicial system associated with the investigative processes as conducted by law enforcement and forensic science. Included will be an examination of the role of crime scene investigation, witness interviewing, and the investigators relationship with the prosecution.

CJ 415. Forensic Techniques. 3 Hours.

This class will explore the scientific disciplines utilized to detect trace evidence at a crime scene. Explain (and demonstrate) the methods used for collection of various types of evidence. The student will learn the importance of the chain of custody from crime scene to the court room.

CJ 455. Ethics/Criminal Justice System. 3 Hours.

PR: CJ 101 and CJ 410 or consent. Focus on the ethical issues faced by individuals as citizens and criminal justice professionals. The course will assist students in clarifying their values and in establishing a framework for ethical decision making. Students will examine ethical issues, which relates to a wide variety of concerns, and a variety of professional ethical codes.

CJ 461. Current Issues/Criminal Justice. 3 Hours.

PR: CJ 101 and CJ 410 or consent. Focus on the current issues facing criminal justice including those related to prevention of crime, law enforcement, corrections, institutional reform, and public opinion. Examination of recent research, emerging trends and policy.

CJ 480. Hate Crimes: Systems Approach. 3 Hours.

PR: Admission to any BAS or RBA program. Examines the response to hate crimes from the various sub-components of the criminal justice system, i.e., law enforcement, courts, and corrections. Organizational policies, statutes, court decisions, and the social response to hate crimes will be evaluated.

CJ 485. Senior Seminar-Capstone. 3 Hours.

PR: Senior standing and criminal justice major. A senior capstone course. Course allows student to consider the integration of theoretical and methodological issues. Focus will also be given to career or graduate placement.

CJ 491. Professional Field Experience. 1-18 Hours.

PR: Consent. (May be repeated up to a maximum of 18 hours.) Prearranged experiential learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.

CJ 493. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

Classics

CLAS 232. Greek and Roman Myths. 3 Hours.

Communication Studies

COMM 104. Public Communication. 3 Hours.

Introduction to principles of communication in the one-to-many context. Emphasis is given to the creation and refutation of arguments.

COMM 306. Organizational Communication. 3 Hours.

Instruction on the role that culture plays in organizations with adaption of one's communication to be successful; understand appropriate and effective communication in the superior-subordinate relationship; evaluate organizational problems with strong communication strategies and the impact of organizational structure on communication.

COMM 308. Nonverbal Communication. 3 Hours.

An examination of the effects of human nonverbal behavior on human communication. Emphasis on specific nonverbal behaviors including touch, time, environmental contexts, physical appearance cues, and social communication cues. This course is not open to freshmen.

Communication Sciences and Disorders

CSAD 270. Effective Public Speaking. 3 Hours.

Designed for improvement of the student's speech based upon theory and demonstrated performance of voice and diction skills and public-speaking skills for effective communication in a variety of speaking situations.

Counseling

COUN 230. Life Choices. 3 Hours.

Students will examine lifestyle choices typically dictated by unconscious customs rather than research. Covers areas of attitude, relationships, physical lifestyle, health and spirituality. The class consists of lectures and required student participation.

Computer Engineering

CPE 271. Introduction to Digital Logic Design. 3 Hours.

PR: MATH 156 or consent. Introduction to the design of digital systems. Topics include number systems, coding, Boolean and switching algebra, minimization of logic, analysis and design of combinational and sequential logic circuits.

Computer Science

CS 101. Intro to Computer Applications. 4 Hours.

Introduction to spreadsheets and databases for problem-solving in disciplines such as math, science, engineering, business, social sciences, behavioral sciences, and environment: using computer applications to create technical reports and presentations.

CS 110. Introduction to Computer Science. 4 Hours.

PR: (MATH 126 and MATH 128) or MATH 129 or MSAT score of 600 math ACT score of 26. Programming and design; simple data types, variables, and expressions; program modularization through procedures, functions, and classes; repetition, selection through control structures; structured data types including arrays and records; application. (3 hr. lec., 1 hr. lab.).

CS 350. Computer System Concepts. 3 Hours.

PR: CS 111 with a minimum grade of C-. System software organization; operating system concepts including processes, threads, memory management, and the user interface; elementary network concepts. (Equivalent to CS 355).

CS 455. Computer Architecture. 3 Hours.

PR: CPE 271. Computer structure; emphasis on implications for software design; evolution of computers; elementary digital logic; CPU structures; memory and I/O structures; pipelining and memory management; introduction to parallel and high-level architectures. (3 hr. lec.).

CS 465. Cybersecurity Principles and Practice. 3 Hours.

PR: WVU and PSC sections require CS 350 with a minimum grade of C- and WVUIT sections require CS 321. Covers the principles and practice of cybersecurity. Addresses encryption; malicious code, spyware, and spam; authentication and access control; database security; operating system security; network security; and social engineering. Provides comprehensive overview of the cybersecurity threats, technologies for information assurance, and engineering approaches to build and maintain secure cyber space.

Economics

ECON 201. Principles of Microeconomics. 3 Hours.

PR: Sophomore standing. Introductory microeconomics analysis. Competitive behavior of firms, price determination, efficiency in production and equity in distribution. Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

ECON 202. Principles of Macroeconomics. 3 Hours.

PR: ECON 201 or ARE 150. Introductory macroeconomics analysis, prerequisites are not enforced at WVUIT and Potomac State campuses. Aggregate demand and supply, saving, investment, the level of employment and national income determination, monetary and fiscal policy.

ECON 225. Elementary Business and Economics Statistics. 3 Hours.

PR: MATH 122 or MATH 123 or MATH 126 or MATH 129 or MATH 153 with a minimum grade of C- or MATH 150 or MATH 154 or MATH 155 or MATH 156 with a minimum grade of D-. Basic concepts of statistical models, distributions, probability, random variables, tests of hypotheses, confidence intervals, regression and correlation with emphasis on business and economics examples. (Equivalent to STAT 211.) (Not open to students who have completed STAT 215.).

ECON 494. Seminar. 1-3 Hours.

PR: Consent. Presentation and discussion of topics of mutual concern to students and faculty.

Educational Psychology

EDP 101. Learning Strategies for Academic Success. 3 Hours.

The purpose of the course is to help students develop active learning strategies that are research-based and appropriate for the college curriculum that will enable them to achieve academic success.

EDP 283. Human Development and Learning. 3 Hours.

Emphasis on development, standardized measurement, and classroom management.

EDP 285. Human Development and Learning. 3 Hours.

Emphasizes Emphasizes competencies in applying principles of learning and measurement in classroom instruction.

Education

EDUC 100. Education Colloquium. 1 Hour.

Components of and requirements for the teacher preparation program, including specializations, professional organizations, requirements for admission to the major, avenues to program completion, and requirements for work with children or youth.

EDUC 200. Professional Inquiry in Education. 3 Hours.

PR: ENGL 101 and ENGL 102. The course provides an examination of issues that cut across the field of teaching and the institution of public education. This course also focuses on developing higher-level skills in written communication.

EDUC 293. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

Electrical Engineering

EE 221. Introduction to Electrical Engineering. 3 Hours.

PR: WVU and PSC sections require PHYS 111 and MATH 156, WVUIT sections require MATH 156. Electrical engineering units, circuit elements, circuit laws, measurement principles, mesh and node equations, network theorems, operational amplifier circuits, energy storage elements, sinusoids and phasors, sinusoidal steady state analysis, average and RMS values, complex power. Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

EE 222. Introduction to Electrical Engineering Laboratory. 1 Hour.

CoReq: EE 221. Design and experimental exercises basic electrical circuits. Use of the digital computer to solve circuit problems. (3 hr. lab.).

EE 223. Electrical Circuits. 3 Hours.

PR: WVU and PSC sections require EE 221 and EE 222 and PHYS 112 and MATH 251 all with a grade of C- or better, WVUIT sections require EE 221 and EE 222 and MATH 251 all with a grade of C- or better. Time response of RC and RL circuits, unit step response, second order circuits, poly-phase systems, mutual inductance, complex frequency, network frequency response, two-port networks and transformers. Fourier methods and Laplace Transforms.

EE 224. Electrical Circuits Laboratory. 1 Hour.

CoReq: EE 223. Design and experimental exercises in circuits. Transient circuits, steady state AC circuits, frequency response of networks. Use of digital computer to solve circuit problems. (3 hr. lab.).

EE 252. Digital Electronics Laboratory. 1 Hour.

CoReq: EE 251. Design, fabrication, and measurement of digital electronic circuits. Modeling and use of discrete devices, logic gates, display devices in switching circuits and timer circuits, Interfacing with integrated logic gates. (3 hr. lab.).

English

ENGL 1C1. Introduction to Composition and Rhetoric. 3 Hours.

Studies the logical, rhetorical, and linguistic structures of expository prose; develops strategies for analyzing purposes, audiences, and conventions; emphasizes processes for drafting, revising, and editing. Required of all bachelor's degree candidates unless equivalent transfer credit or portfolio credit applies. Qualified students may complete ENGL 103 in place of ENGL 101 and 102. Co-requisites will differ at WVUIT and PSC.

ENGL 1C2. Composition, Rhetoric, and Research. 3 Hours.

PR: ENGL 101 or equiv. Builds on the writing abilities earned in English 101 (or the equivalent). Focuses on the research process, argumentation, and critical inquiry; emphasizes structures, language, documentation, and formats appropriate for specific audiences and purposes. Required of all bachelor's degree candidates unless equivalent transfer credit or portfolio credit applies.

ENGL 100. English 100 Writing Studio. 2 Hours.

PR: Consent. Additional support of basic reading and writing skills for students taking ENGL 101. Enables students to have the reading, writing, critical thinking and language skills necessary to function effectively and succeed in pursuit of their degrees and in the global economy.

ENGL 101. Introduction to Composition and Rhetoric. 3 Hours.

Studies the logical, rhetorical, and linguistic structures of expository prose; develops strategies for analyzing purposes, audiences, and conventions; emphasizes processes for drafting, revising, and editing. Required of all bachelor's degree candidates unless equivalent transfer credit or portfolio credit applies. Qualified students may complete ENGL 103 in place of ENGL 101 and 102. Co-requisites will differ at WVUIT and PSC.

ENGL 102. Composition, Rhetoric, and Research. 3 Hours.

PR: ENGL 101 or equiv. Builds on the writing abilities earned in English 101 (or the equivalent). Focuses on the research process, argumentation, and critical inquiry; emphasizes structures, language, documentation, and formats appropriate for specific audiences and purposes. Required of all bachelor's degree candidates unless equivalent transfer credit or portfolio credit applies.

ENGL 111. Introduction to Creative Writing. 3 Hours.

Instruction in reading and writing fiction, nonfiction and poetry in order to enhance creative writing skills.

ENGL 156. Literature of Native America. 3 Hours.

A historical survey of Native American prose, poetry, song, and story from the beginning to the present.

ENGL 171. Literature of Science and Nature. 3 Hours.

Analyzes the representation of science and nature in literature and film across historical periods and genres.

ENGL 185. Technical Writing and Reporting. 3 Hours.

This course is designed to develop skill in presenting and reporting scientific and technical information in a simple, clear, and factual manner. Designed for students in career programs.

ENGL 200. Foundations of Literary Study. 3 Hours.

Study and practice of the analytical, research, and writing skills fundamental to literary studies.

ENGL 213. Creative Writing: Poetry. 3 Hours.

An open enrollment introduction to the writing of poetry; practice in the basics of image, metaphor, line, form, sound and voice.

ENGL 214. Creative Writing: Non-Fiction. 3 Hours.

Introductory course in the writing of non-fiction.

ENGL 226. Non-Western World Literature. 3 Hours.

Selected readings in non-Western world literature, ancient and modern.

ENGL 230. Film Studies. 3 Hours.

Topics in the study of film, or film and literature, in a historical, theoretical and/or cultural context.

ENGL 233. The Short Story. 3 Hours.

The short story's structure, history, and contemporary forms.

ENGL 236. The Bible as Literature. 3 Hours.

Analysis of the themes, topics and literary genres of the Old and New Testaments. Issues to be discussed include the unity of the text, the status of authorship, translation, and the depiction of God.

ENGL 241. American Literature 1. 3 Hours.

A historical introduction and survey from its beginnings to the mid-nineteenth century.

ENGL 242. American Literature 2. 3 Hours.

A historical introduction and survey from the mid-nineteenth century to the present.

ENGL 252. Appalachian Fiction. 3 Hours.

Reading of short stories, novels, and other narratives by Appalachian authors.

ENGL 254. African American Literature. 3 Hours.

Studies in the literature of African American authors, 1845 to the present.

ENGL 255. Multiethnic Literature. 3 Hours.

This course examines literature by Americans of diverse ethnicities including, but not limited to, Asian Americans, Latinos, Native Americans, African Americans, and European Americans of various class/religious/regional backgrounds.

ENGL 257. Science Fiction and Fantasy. 3 Hours.

A study of the history and nature of science fiction from H. G. Wells to the present, with special attention to features of prose narration.

ENGL 258. Popular American Culture. 3 Hours.

A survey of modern popular American culture from 1940 to the present, with special emphasis on popular literature, music, television, movies, radio in its golden age, and comic books.

ENGL 261. British Literature 1. 3 Hours.

A historical introduction and survey from the Middle Ages through the eighteenth century.

ENGL 262. British Literature 2. 3 Hours.

A historical introduction and survey from the late eighteenth century to the present.

ENGL 263. Shakespeare 1. 3 Hours.

Several of Shakespeare's most important plays.

ENGL 272. Modern Literature. 3 Hours.

British and American poetry, drama, and fiction from 1900 to 1960.

ENGL 285. Images of Women in Literature. 3 Hours.

Representative literary works studied against a backdrop of social and historical documents to examine the effect of images of women in literature on the self-image of women today.

ENGL 286. World Fairy Tales. 3 Hours.

This course explores fairy tales as world literature. Students will examine the history of the fairy tale and explore how stories are told across the world. Stories from America, Europe, Asia, Africa, and from other under-represented groups will appear.

ENGL 304. Business and Professional Writing. 3 Hours.

PR: (ENGL 101 and ENGL 102) or ENGL 103. Students will analyze different writing contexts, meet the needs of different audiences, and organize and present material in letters, memos, and reports. Includes some research, Internet components, and a review of style, grammar and usage.

ENGL 305. Technical Writing. 3 Hours.

PR: (ENGL 101 and ENGL 102) or ENGL 103. Writing in scientific and technical fields. Introduces students to typical genres, workplace practices, document design, and conventions of writing for experts and non-experts.

ENGL 318. Topics in Creative Writing. 3 Hours.

PR: ENGL 212 or ENGL 213 or ENGL 214 with a minimum grade of B-. (May be repeated for a maximum of 9 hours.) Advanced work in creative writing; course content changes with genre: fiction, poetry, non-fiction.

ENGL 331. Topics in Genre. 3 Hours.

This variable-topic course will trace formal and thematic conventions in poetry, drama, prose, fiction, and/or nonfiction.

ENGL 343. American Poetry. 3 Hours.

Major American poets of the nineteenth and twentieth centuries.

ENGL 383. Introduction to Cultural Studies. 3 Hours.

Students will explore the ways in which we are all simultaneously users of and used by culture, and the ways in which cultural practices influence how we think, feel, and act in everyday life.

Engineering

ENGR 101. Engineering Problem Solving 1. 2 Hours.

PR or CONC: MATH 154 or MATH 155. Engineering problem solving methodologies and analysis. Use of computers in problem solving, technical report writing, team based project work and presentations.

ENGR 102. Engineering Problem-Solving 2. 3 Hours.

PR: ENGR 101 and (MATH 154 or MATH 155) with a C- in each. Continued development of engineering problem-solving, teamwork, and communication skills with emphases on using the computer as a tool and algorithm development with a high-level language such as MATLAB.

ENGR 129. Engineering Mathematics. 1 Hour.

PR: Consent. Review of key pre-calculus and early calculus concepts and topics for engineering students.

ENGR 191. First-Year Seminar. 1-3 Hours.

Engages students in active learning strategies that enable effective transition to college life at WVU. Students will explore school, college and university programs, policies and services relevant to academic success. Provides active learning activities that enable effective transition to the academic environment. Students examine school, college and university programs, policies and services.

ENGR 199. Orientation to Engineering. 1 Hour.

Orientation to degree programs and requirements, departmental resources, curriculum options, students' responsibilities, and opportunities. Development of academic success strategies and University experiences to equip students to make life decisions.

Environmental Protection

ENVP 155. Elements of Environmental Protection. 3 Hours.

An introduction to land and water resources and their management and protection. An evaluation of the relationships between human activities and natural environments and the interaction between natural resource utilization and development.

Equine Studies

EQST 101. Introduction to Equine Science. 3 Hours.

Provides a basic understanding of equine science and management. Topics include the history and future of the equine industry, breeds, selection, health and nutrition, along with basic management practices.

EQST 105. Equine Safety and Behavior. 3 Hours.

Discusses and demonstrates safety measures required when working with and around horses. Students will learn the importance of understanding equine behavior for safety, management, and training purposes.

EQST 115. Riding Basics. 1 Hour.

Provides riding instruction aimed at improving the rider's body position, balance, control, seat, strength, confidence and concentration. Riders will learn the skills and techniques needed to handle and control a horse effectively from the saddle.

EQST 120. Introduction to Horsemanship and Training. 4 Hours.

PR: EQST 105. Focuses on the understanding and application of natural horsemanship and a variety of horsemanship and training techniques, including gaining control and respect, handling, ground work, and starting colts. (3 hr. lec, 3 hr lab.).

EQST 160. Basic Equine Hoof Care and Management. 1 Hour.

Introduces physiology of the hoof, trimming, shoeing, corrective shoeing and shoes, breed requirements, identifying and treatment of lameness.

EQST 185. Equine Health and Emergency Management. 3 Hours.

Provides students with the skills necessary to effectively manage the health of horses, including best practices in emergency care, observation, and prevention.

EQST 199. Orientation to Equine Studies. 1 Hour.

Orientation to degree programs and requirements, departmental resources, curriculum options, student responsibilities and employment opportunities in the equine industry.

EQST 230. Advanced Horsemanship and Training. 4 Hours.

PR: EQST 105 and EQST 120. Improves overall communication between the horse and rider. Students will learn techniques used in training horses to be willing and responsive to the rider's subtle cues. (3 hr. lec., 3 hr. lab.).

EQST 240. Equine Facilities and Stable Management. 4 Hours.

Teaches practical skills and considerations that will be needed to own or operate an equine facility, including functional requirements, design and layout, safety and operation of farm equipment, and waste management. (3 hr. lec., 3 hr.).

EQST 290. Teaching Practicum. 1-3 Hours.

PR: Consent. Teaching practice as a tutor or assistant.

EQST 291. Professional Field Experience. 1-18 Hours.

PR: Consent. (May be repeated for a maximum of 18 credit hours.) Prearranged experiential learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.

EQST 293. Special Topics. 1-6 Hours.

PR: Consent, Investigation of topics not covered in regularly scheduled courses.

Forest Management

FMAN 212. Forest Ecology. 3 Hours.

PR: FOR 205. Forest and environment factors; site and type characteristics.

FMAN 222. Forest Mensuration. 4 Hours.

PR: MATH 155 and STAT 211. Estimating volume and growth of trees and forest stands with emphasis on the mathematical and statistical techniques involved. Laboratories include practical field experience.

FMAN 311. Silvicultural Systems. 4 Hours.

PR: FOR 205 and ((FMAN 212 and FMAN 222) or WMAN 313). The theory and practice of controlling forest stand establishment, composition, structure, and growth. Systems include: reproduction methods, release operations, and intermediate treatments. Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

Forestry

FOR 101. Careers in Natural Resources Management 1. 1 Hour.

(Required only for students who rank as freshman in the Division of Forestry.) An introduction to professional activities in forest resources management, recreation and parks management, wildlife and fisheries management, and wood science and utilization. Survey of major issues in natural resources management and conservation.

FOR 140. West Virginia's Natural Resources. 3 Hours.

Survey of policies and practices in development and use of soil, water, forest, wildlife, mineral, and human resources in West Virginia.

FOR 191. First-Year Seminar. 1-3 Hours.

Engages students in active learning strategies that enable effective transition to college life at WVU. Students will explore school, college and university programs, policies and services relevant to academic success. Provides active learning activities that enable effective transition to the academic environment. Students examine school, college and university programs, policies and services.

FOR 203. Careers in Natural Resources Management 2. 1 Hour.

Planning a career in forestry and natural resources professions. Developing a career strategy, resume building, and conducting a successful job search.

FOR 205. Dendrology. 3 Hours.

Classification and silvical characteristics of North American forest trees.

FOR 240. Introduction to Computing in Natural Resources. 3 Hours.

Introduction to computer applications in natural resource management. Emphasis on MS Excel statistical analysis tools, MS Access, Visual Basic Programming, hand held PCs and application examples.

Geography

GEOG 102. World Regions. 3 Hours.

Comparison and relationships of world regions. Geographical perspectives of contemporary global problems. Developing regions contrasted with modernized regions and the consequences of their interactions.

GEOG 106. Physical Geography Laboratory. 1 Hour.

PR or CONC: GEOG 107. Introduction to global environmental systems operating on the earth's surface, emphasizing weather and climate, soils, natural vegetation, and geomorphology, and examination of human interaction with these natural processes.

GEOG 107. Physical Geography. 3 Hours.

Introduction to global environmental systems operating on the earth's surface, emphasizing weather and climate, soils, natural vegetation, and geomorphology, and examination of human interaction with these natural processes.

GEOG 108. Human Geography. 3 Hours.

This course introduces students to geographic dimensions of important topics in today's world. Students will learn about multiple approaches within human geography, including: cultural, economic, political, and urban geography. Students will use these approaches to understand and think critically about current issues in the world around them, from local to global scales.

GEOG 205. Natural Resources. 3 Hours.

Introduces the concept of natural resources and surveys such topics as land, soil, rangeland, forests, water, atmosphere, minerals, and energy. Emphasis is on the United States within the context of the global environment.

Geology

GEOL 101. Planet Earth. 3 Hours.

Composition and structure of the Earth and the physical processes that change Earth's surface. GEOL 102 not required with GEOL 101. (Accompanied by registration in GEOL 102, class meets requirements for 4 hr. credit in a laboratory science in geology.) (Students cannot receive credit for GEOL 101 and GEOL 110 or GEOG 110.)

GEOL 102. Planet Earth Laboratory. 1 Hour.

PR or CONC: GEOL 101. Laboratory study of the Earth using rocks, minerals and maps. (2 hr. lab.) (Students cannot receive credit for GEOL 102 and GEOL 111 or GEOG 111.)

GEOL 103. Earth Through Time. 3 Hours.

PR: GEOL 101 or GEOL 110 or GEOG 110. Evolution of the Earth and its inhabitants. (Accompanied by registration in GEOL 104, class meets requirements for 4 hr. credit in a laboratory science in geology.)

GEOL 104. Earth Through Time Laboratory. 1 Hour.

PR or CONC: GEOL 103. Laboratory study of sedimentary rocks, fossils, and geologic maps and their use in interpreting Earth history. (2 hr. lab.)

GEOL 105. A Study of Dinosaurs. 3 Hours.

A beginning course in the study of dinosaurs. Classification, biology and behavior will be studied.

GEOL 111. Environmental Geoscience Laboratory. 1 Hour.

PR or CONC: GEOL 110. (Also listed as GEOG 111.) (Students may not receive credit for GEOG 111 and GEOL 102 or GEOG 111.)

Health Informatics and Information Management

HIIM 110. Introduction to U.S. Healthcare Delivery System. 3 Hours.

Overview of Federal, State, and local agencies and their role in the healthcare system. Emphasis on cost, access, quality and types of organizations and services provided.

HIIM 112. Fundamentals of Health Information Management. 3 Hours.

Introduction to the health information management profession and the health record. An overview of the health record, data format, structure, and documentation requirements including accreditation, licensure, regulatory standards and ethical standards of practice.

HIIM 231. Health Information Management Applications. 2 Hours.

PR: CS 101 with a minimum grade of C-. A study of Electronic Health Records (EHR) and clinical, financial, and administrative applications. Includes a survey of implementation techniques for collecting, storing, retrieving and managing healthcare data.

HIIM 233. Health Informatics and Information Management Disease Fundamentals and Management. 3 Hours.

PR or CONC: PATH 200 or PALM 200. A study of the nature and cause of disease and management, including qualifications and pharmaceutical interventions relevant to HIIM tasks.

HIIM 235. Coding and Classification of Diseases. 3 Hours.

PR: WVU sections require PR or CONC: ((NBAN 205 or PALM 205) and (NBAN 206 or PALM 206)) with a minimum grade of C- in both, PSC sections require PR or CONC: BIOL 230 with a minimum grade of C-. Basic coding using the latest edition of the International Classification of Diseases. Applications of classifications, taxonomies, nomenclatures, terminologies, and vocabularies to include evaluation and auditing for disease coding.

HIIM 237. Introduction to Professional Practice. 1 Hour.

Exploration of Health Informatics and Health Information Management careers, certifications and requirements, resources, curriculum options, student responsibilities, and opportunities for volunteer service. Observation of practitioners in a variety of facility settings.

HIIM 240. Classification of Healthcare Procedures. 3 Hours.

PR: HIIM 235. Basic coding of healthcare procedures using government approved classification systems and nomenclatures. Applications of classifications, taxonomies, nomenclatures, terminologies, and vocabularies to include evaluation and auditing for procedure coding.

HIIM 242. Healthcare Reimbursement and Revenue Cycle Management. 2 Hours.

A study of systems used for professional and institutional reimbursement in various healthcare settings. Application of revenue cycle principles.

HIIM 244. Principles of Health Informatics and Information Management Quality Management. 2 Hours.

A survey of quality measures, techniques, and theories including utilization review, risk management, patient outcomes, and medical staff credentialing.

HIIM 246. Fundamentals of Clinical Documentation Improvement. 3 Hours.

A study of clinical documentation improvement practices and the management of the clinical documentation process.

HIIM 247. Registries in Healthcare. 2 Hours.

A study of healthcare registry management and the operational components of registries. Registry types and registry policy are included.

HIIM 248. Health Informatics and Information Management Professional Practice 1. 1 Hour.

PR: HIIM 237. Clinical practice experience with a focus on coding and classifications systems, revenue and quality management, clinical documentation improvement and the application and use of technologies associated with these domains.

History

HIST 101. Western Civilization: Antiquity to 1600. 3 Hours.

(HIST 101 does not have to precede HIST 102.) A survey of the major developments in Western civilization beginning with the ancient Mediterranean world and concluding with Reformation Europe.

HIST 102. Western Civilization: 1600 to Present. 3 Hours.

(HIST 102 may precede HIST 101.) A survey of major developments in Western civilization from 1600 to the present with attention to Europe's emerging industrial society and changing role in world affairs.

HIST 152. Growth of the American Nation to 1865. 3 Hours.

(HIST 152 does not have to precede HIST 153.) Examines the basic political, economic, and social forces in formation and development of the United States before 1865. Emphasis on national development from independence through the Civil War.

HIST 153. Making of Modern America: 1865 to the Present. 3 Hours.

(HIST 153 may precede HIST 152.) Continues the examination of basic political, economic, and social forces in the development of the United States since the Civil War.

HIST 179. World History to 1500. 3 Hours.

Comparative history of Africa, Asia, and Europe from earliest times until 1500. Political, economic, social, and religious developments with emphasis on patterns of authority, the individual, nature, and society.

HIST 180. World History Since 1500. 3 Hours.

Comparative history of Africa, Asia, and Europe 1500 to the present. Political, economic, and social developments with emphasis on patterns of authority, the individual, nature, society, and the impact of the West.

HIST 200. Practicing History. 3 Hours.

Students will acquire the skills to be an effective historian, including critically reading and analyzing primary and secondary sources, learning the basics of historiography, and creating an independent research topic. Students will write an original research paper and present their findings to the class.

HIST 209. Twentieth Century Europe. 3 Hours.

Traces the major political, economic, and social developments of Europe from World War I to the present.

HIST 250. West Virginia. 3 Hours.

Historical foundations and development of West Virginia, with particular emphasis upon the growth of the government, the economy, and the traditions of the state.

HIST 293. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

HIST 453. Civil War and Reconstruction. 3 Hours.

Causes as well as constitutional and diplomatic aspects of the Civil War; the role of American black in slavery, in war, and in freedom; and the economic and political aspects of Congressional Reconstruction.

Human Nutrition and Foods

HN&F 171. Introduction to Human Nutrition. 3 Hours.

Nutrient structure, metabolism, integrated function and their importance to human well-being during all stages of the life cycle. Current concerns and those of special interest to college students in meeting nutrient needs.

Honors

HONR 199. Orientation to Honors. 1 Hour.

Orientation to degree programs and requirements, departmental resources, curriculum options, student responsibilities and opportunities.

HONR 450. Honors EXCEL Project Development. 1 Hour.

This course will enable and enhance experiential learning for students in the Honors EXCEL program. Students will develop skills in leadership, project management, communication and collaborative scholarship.

HONR 451. Honors EXCEL: Summative Experience. 1 Hour.

This course is designed to enable and enhance experiential learning for students in the Honors EXCEL program. Students will develop written and oral communication skills. Students will present their work to stakeholders on- and/or off-campus.

Horticulture

HORT 184. Trees and Shrubs. 2 Hours.

Identification, description, adaptability, culture, and evolution of selected woody plant materials with emphasis on their use as landscape materials.

HORT 187. Introduction to Greenhouse/Nursery Management. 4 Hours.

PR: Two semesters of inorganic chemistry and HORT 200 or consent. Greenhouse and nursery as a controlled plant environment. How to regulate factors influencing plant growth and development within specialized environments of greenhouses and Pot' n Poot nurseries.

HORT 220. General Horticulture. 3 Hours.

PR: BIOL 101 and BIOL 103 or consent. Principles underlying present-day horticulture practice with special emphasis on how basic discoveries in plant science have been applied in horticulture.

HORT 251. Floral Design. 3 Hours.

Basic course in flower arrangement to cover occasions for the home and retail flower shop.

HORT 260. Woody Plant Materials. 3 Hours.

PR: BIOL 101 and BIOL 103 or equiv. Common ornamental woody plants, their identification, cultural needs, and evaluation of use; some outdoor study and a one-day nursery trip. (2 - 3 hr. lab.).

HORT 262. Herbaceous Plant Materials. 3 Hours.

Identification, description, adaptability, and evaluation of selected herbaceous annuals and perennials with emphasis on their use as design elements.

HORT 293. Special Topics. 6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

HORT 493. Special Topics. 6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

Hospitality/Tourism

HTOR 110. Food Production 1. 6 Hours.

Develops basic skills needed in the kitchen. Students learn proper techniques, terminology, and equipment for activities ranging from carving to menu planning. Prepare small quantity menus in a commercial-kitchen setting and review current food quality standards.

HTOR 111. Food Production 2. 6 Hours.

Builds on techniques learned in HTOR 110, with an emphasis on restaurant and dining room operations. Exercises will include exploration in classic cuisines, dinner promotion methods, personnel training, and budget development. Students will develop the culinary skills needed to prepare professional cafeteria style meals as well as catered events.

HTOR 120. Sanitation. 2 Hours.

Stresses the principles of safe food preparation and handling. Topics include safe food purchasing; storage and preparation; causes of food borne illness; insect and rodent control; and government rules and regulations pertaining to food service sanitation.

HTOR 130. Inventory, Labor, and Cost Control. 3 Hours.

Principles of modern food and beverage management as applied to the food service industry. Emphasis on systems of food and labor cost controls, budgets for food service operations, pricing and planning, and menu analysis. Relationships between management and employees and current trends in the food service industry will also be explored.

HTOR 140. Restaurant Management. 6 Hours.

PR: HTOR 110 and HTOR 111. Provides a realistic understanding of how to operate a restaurant. Experience will be provided in cooking food to order, service, managerial skills, training and supervising employees, purchasing food products, and managerial decision making.

HTOR 141. Kitchen Layout. 3 Hours.

Basic facts, principles, and learning experiences involved in planning a commercial kitchen. Appropriate kitchen equipment selection and sequence of work and material flow are analyzed for specific menus.

HTOR 150. Fine Dining. 3 Hours.

PR: HTOR 140. Students learn skills necessary to work in a five-star resort, hotel, or restaurant. Skills include serving foods sent from the kitchen to be prepared tableside, and include carving, flaming, filleting, and mixing of meats, fish and salads.

HTOR 160. Topics in International Cuisine. 1 Hour.

The fundamental principles of this course are based on international cooking and trends in the vast variety of foods around the world to bring new ideas and variety in the cooking. Grading will be pass/fail.

HTOR 162. Topics in Fine Dining. 1 Hour.

The fundamental principles of this course are based on practices associated with fine dining. Topics/activities will include the preparation and presentation of gourmet foods, table preparation, and serving procedures. Course will be graded Pass/Fail.

HTOR 293. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

HTOR 295. Internship. 6 Hours.

PR: Sophomore Status. Supervised professional study conducted in a hospitality or tourism field setting.

Humanities

HUM 101. Introduction to Western Civilization 1. 3 Hours.

Presents the high points of Greco-Roman and Medieval European civilizations: their art, architecture, philosophy, religion, literature and music.

HUM 102. Introduction to Western Civilization 2. 3 Hours.

Presents the art, architecture, philosophy, religion, literature and music of the following periods in Western civilization: the Renaissance, the Age of Classicism and the revolutionary nineteenth and twentieth centuries.

Journalism

JRL 101. Media and Society. 3 Hours.

Examines the relationship between media, culture and society, with emphasis on the history, structure, and organization of the mass media.

JRL 191. First-Year Seminar. 1-3 Hours.

Engages students in active learning strategies that enable effective transition to college life at WVU. Students will explore school, college and university programs, policies and services relevant to academic success. Provides active learning activities that enable effective transition to the academic environment. Students examine school, college and university programs, policies and services.

JRL 215. Media Writing. 3 Hours.

PR: Minimum cumulative GPA of C. Introduction to the fundamental reporting and storytelling skills that are the foundation of all media writing: print, radio, television, public relations, advertising and social media.

JRL 220. Introduction to Photojournalism. 3 Hours.

Basic techniques of journalistic photography, digital imaging and editing. Students must have access to a film or digital camera.

JRL 225. Media Tools & Applications. 3 Hours.

Intended for College of Media majors and Interactive Media Design minors, this lecture/lab course covers fundamental principles and practices of multimedia content gathering and editing in preparation for upper-level courses with the College of Media.

JRL 318. Beat Reporting. 3 Hours.

PR: JRL 215. Essentials of developing and covering a news beat. Students generate stories, cultivate sources, and discover their community.

JRL 426. Investigative Reporting. 3 Hours.

PR: JRL 318 or JRL 386 or TVJ 386. Reporting on the agencies, structures, and programs that make society work, including circuit court and police.

JRL 495. Independent Study. 1-3 Hours.

Faculty supervised study of topics not available through regular course offerings.

Landscape Architecture

LARC 105. Introduction to Landscape Architecture, Environmental Design and Planning. 3 Hours.

A general overview of the field of landscape architecture, environmental design and planning. The course reviews the practices of design and planning professionals and their connections to society. An emphasis is placed on past development traditions and current sustainable development methods, strategies, and impacts of planning and design through the review of past and current projects.

LARC 212. History of Landscape Architecture. 3 Hours.

A broad survey of the history of the designed human environment with emphasis on the development of landscape architecture. (Does not fulfill Cluster A for landscape architecture students.).

Leadership Studies

LDR 201. Principles of Leadership. 3 Hours.

This course serves as an introduction to leadership theory and practice. The course will examine various aspects of the literature on leadership; provide practice for developing leadership skills; and offer personal experiences for self-reflection.

Mechanical and Aerospace Engineering

MAE 241. Statics. 3 Hours.

PR: WVU sections require PHYS 111 and (MATH 154 or MATH 155) all with a grade of C- or better, WVUIT sections require MATH 155 as a prerequisite. Engineering applications of force equilibrium. Vector operations, couples and moments, resultants, centers of gravity and pressure, static friction, free-body diagrams, trusses and frames.

MAE 242. Dynamics. 3 Hours.

PR: WVU sections require MATH 156 with a grade of C- or better and MAE 241, WVUIT sections require MATH 156 and MAE 241 as prerequisites. Newtonian dynamics of particles and rigid bodies. Engineering applications of equations of motion, work and energy, conservative forces, acceleration in several coordinate systems, relative motion, instantaneous centers, and plane motion.

MAE 243. Mechanics of Materials. 3 Hours.

PR: WVU sections require MATH 156 with a grade of C- or better and MAE 241, WVUIT sections require MATH 156 and MAE 241 as prerequisites. Stress deformation, and failure of solid bodies under the action of forces. Internal force resultants, stress, strain, Mohr's circle, and mechanical properties of materials, generalized Hooke's law. Axial bending and buckling loads, and combinations.

MAE 320. Thermodynamics. 3 Hours.

PR: WVU sections require PHYS 111 and MATH 156, WVUIT sections require MATH 156 as a prerequisite. Principles of thermodynamics; properties of ideal gases and vapors; first and second laws of thermodynamics; basic gas and vapor cycles; basic refrigeration.

Mathematics**MATH 121. Intro Concepts Of Mathematics. 3 Hours.**

(Designed for non-science majors who do not need the techniques of mathematics for other course work in their programs.) Topics in modern mathematics.

MATH 122. Quantitative Skills and Reasoning. 2 Hours.

An introductory study of quantitative and reasoning skills needed for success in science, technology, engineering, and mathematics.

MATH 124. Algebra with Applications. 3 Hours.

PR: Satisfy the minimum ACT/SAT math score, or satisfactory performance on departmental placement examination, (prerequisites may vary on regional campuses). Study of algebra with an emphasis on applications for science, business, technology, and social science. Topics include graphing and solving problems using linear, quadratic, square-root, logarithmic, and exponential functions, solving equations, performing operations on matrices.

MATH 124S. Algebra with Applications with Support. 3 Hours.

PR: Satisfactory performance on departmental placement test, or satisfy the minimum ACT/SAT Math score, or a grade of C- or better in MATH 122. Study of algebra with an emphasis on applications for science, business, technology, and social science. Topics include graphing and solving problems using linear, quadratic, square-root, logarithmic, and exponential functions, solving equations, performing operations on matrices. Support topics will also include intermediate algebra remediation, how to study mathematics, decrease math/test anxiety, and manage your time.

MATH 125. Applied College Mathematics. 3 Hours.

PR: MATH 91 or satisfy the minimum ACT/SAT Math score. Material covered will include applications involving ratios and proportions, percents, measurement, and geometric relationships to support algebraic modeling of linear, quadratic, exponential and logarithmic functions. Modeling of real world scenarios will be supported through the use of spreadsheets.

MATH 126. College Algebra. 3 Hours.

PR: Satisfy the minimum ACT/SAT math score, or satisfactory performance on departmental placement examination, (prerequisites may vary on regional campuses). Introduces the foundations of analysis designed to precede the calculus sequence with emphasis on functions and graphs. Topics include properties of absolute value, polynomial, rational, exponential, logarithmic functions, and techniques for solving equations and inequalities.

MATH 126B. College Algebra 4-Day. 3 Hours.

PR: Satisfy the minimum ACT/SAT math score, or satisfactory performance on departmental placement examination, or MATH 122 with a minimum grade of C-. (This course is not open to students who have credit for MATH 129 or its equivalent.) Review of the real number system and algebraic expressions, equations, inequalities, graphing, functions, and polynomials. Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

MATH 126C. College Algebra 3-Day. 3 Hours.

PR: Two units of algebra, one unit of geometry, and satisfactory performance on departmental placement examination or successful completion of the pre-college algebra workshop or its equivalent. (This course is not open to students who have credit for MATH 129 or its equivalent.) Review of the real number system and algebraic expressions, equations, inequalities, graphing, functions, and polynomials. Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

MATH 126S. . 3 Hours.

PR: Satisfy the minimum ACT/SAT math score, or satisfactory performance on departmental placement examination, or a minimum grade of C- in MATH 122. Introduces the foundations of analysis designed to precede the calculus sequence with emphasis on functions and graphs. Topics include properties of absolute value, polynomial, rational, exponential, logarithmic functions, and techniques for solving equations and inequalities. Support topics will also include intermediate algebra remediation, how to study mathematics, decrease math/test anxiety, and manage your time.

MATH 128. Plane Trigonometry. 3 Hours.

PR: MATH 124 or MATH 126 with a minimum grade of C- in each. (This course is not open to students who have credit for MATH 129 or equivalent.) Trigonometric functions, identities, vectors, complex numbers, and trigonometric equations. Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

MATH 129. Pre-Calculus Mathematics. 4 Hours.

PR: Satisfy the minimum ACT/SAT math score, or satisfactory performance on departmental placement test. A treatment of algebra, analytic geometry, and trigonometry. Not open to students who have credit for the equivalent of either MATH 126 or 128. Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

MATH 150. Applied Calculus. 3 Hours.

PR: Satisfy the minimum ACT/SAT math score, or satisfactory performance on departmental placement examination, or C- in MATH 124 or MATH 126 or MATH 129. For students in other disciplines needing calculus for applications. Limits of sequences and functions, continuity derivatives, and integrals of polynomials, rational functions, and exponential and logarithmic functions, partial derivatives, maxima and minima. Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

MATH 155. Calculus 1. 4 Hours.

PR: Satisfy the minimum ACT/SAT math score, or satisfactory performance on departmental placement examination, or C- in MATH 129. For sections TOX offered at WVU Beckley, may instead satisfy minimum grade of C- in MATH 126 and MATH 128. Introduction to limits, continuity, derivatives, antiderivatives, definite integrals, and applications of the derivative. Not open to students who have earned credit in MATH 153 and/or MATH 154.

MATH 156. Calculus 2. 4 Hours.

PR: A minimum grade of C- in MATH 154 or MATH 155. Techniques of integration, application of the definite integral, polar coordinates, indeterminate forms, and infinite series.

MATH 251. Multivariable Calculus. 4 Hours.

PR: MATH 156 with a minimum grade of C-. Introduction to solid analytic geometry, vector algebra, and calculus of several variables.

MATH 261. Elementary Differential Equations. 4 Hours.

PR: MATH 251, WVUIT sections require MATH 251 or MATH 315 with a minimum grade of B. Ordinary differential equations, Laplace transforms, partial differential equations, Fourier series, and applications.

Microbiology

MICB 200. Medical Microbiology. 3 Hours.

PR: (CHEM 111 and CHEM 112) or (CHEM 115 and CHEM 116). Provides basic background in medical microbiology. Emphasis is on basic structure of all microorganism groups including bacteria, fungi, viruses, protozoa and helminths; epidemiology, immunology, and infectious disease.

Music

MUSC 111. Introduction to Music. 3 Hours.

(Not open to music majors). Introductory course designed to develop an appreciation and understanding of the significance of music as a fine art, and to help the student develop intelligent listening habits.

MUSC 113. American Popular Music. 3 Hours.

Introduction of history and development of American popular music.

MUSC 115. Introduction to History of Jazz. 3 Hours.

An Introduction to jazz, its characteristics, important performers, and their music, including an historical survey with attention to the changing style of the music.

MUSC 120. History of Musical Theatre. 3 Hours.

This course explores American musical theatre, one of this country's primary contributions to world culture, covering its origins, components, and its major creative figures.

Nursing

NSG 100. Introduction to Nursing. 2 Hours.

Introduction to the role of the nurse in modern health care: critical thinking, nursing interventions, professionalism, caring and communication in nursing practice with emphasis on safety, quality, health, culture, ethics, leadership, and health policy.

NSG 211. Health Assessment & Communication. 6 Hours.

PR: NSG 100 with a minimum grade of C-. Examination of concepts, principles, and models that guide nursing practice related to physical, psychosocial, spiritual, developmental, cultural, intellectual assessment and communication across the lifespan in the classroom, simulation, and various clinical settings.

NSG 212. Foundations of Nursing Practice. 6 Hours.

PR: NSG 211 with a minimum grade of C-. Theories, concepts, principles, and processes that lay the foundation for critical thinking, nursing interventions, communication, professional role and caring in the practice of nursing. Application of the nursing process in classroom, simulation, and clinical experiences.

NSG 250. Clinical Nursing Pharmacology. 3 Hours.

PR: NSG 211 with a minimum grade of C-. Principles of pharmacology emphasizing scholarly inquiry and evidence-based reasoning to insure accurate knowledge of and administration of medications to individuals and families across the lifespan. Pharmacological management is analyzed in conjunction with pathophysiology.

NSG 293. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

NSG 310. Maternal Infant Nursing & Women's Health Care. 4 Hours.

PR: NSG 212 and PR or CONC: NSG 311 and NSG 376 with a minimum grade of C-. Human response to normal and abnormal changes in health status across the female lifespan and adaptations of the childbearing family. Provision of the holistic nursing care to women and childbearing families in the clinical area.

NSG 311. Alterations in Adult Health 1. 6 Hours.

PR: NSG 212 and PR or CONC: NSG 376 with a minimum grade of C- in each. Pathophysiology and holistic nursing care of adults experiencing acute and chronic problems. Use of the nursing process to plan and provide interventions appropriate to health care needs in the clinical setting.

NSG 312. Alterations in Adult Health 2. 6 Hours.

PR: NSG 311 and NSG 376 with a minimum grade of C- in each. Builds on NSG 311 using critical thinking and nursing process in a team based learning format, paired with clinical application, to explore holistic nursing care of adults with acute and chronic health problems.

NSG 320. Child and Adolescent Health. 4 Hours.

PR: NSG 311 and NSG 376 with a minimum grade of C- in each. Didactic and clinical experiences focused on human response to alterations in health, developmental needs, and family-centered care specific to pediatric population with emphasis on the professional nursing role, evidence-based reasoning, therapeutic communications, and caring.

NSG 350. Evidence Based Practice and Research. 3 Hours.

PR: NSG 211 and NSG 212 and (STAT 201 or STAT 211) with a minimum grade of C- in each. Theory, concepts, and methods of the research process intended to provide a basic understanding that is necessary for the translation of current evidence into nursing practice.

NSG 360. Ethics and Health Policy. 3 Hours.

PR: NSG 212 and ENGL 102 with a minimum grade of C- in each. Ethical decision-making in health care situations across the lifespan, including palliative and end of life care. Health care policy, legal and regulatory issues are discussed.

NSG 400. Spirituality and Health. 3 Hours.

In this course, students will examine the mind/body/spirit connection that occurs in the process of healing and wellness. Theories and practices of relationships between mind/body/spirit will be examined as they impact health/wellness of patients.

NSG 411. Nursing in Complex Community Systems. 7 Hours.

PR: NSG 276 and NSG 310 and NSG 312 and NSG 320 and NSG 360 with a minimum grade of C- in each. Comprehensive theoretical introduction to community health nursing paired with clinical experience focused on promoting health and preventing disease in multiple populations. Culminates in a capstone project that addresses an identified community health need.

NSG 412. Leadership in Complex Systems. 7 Hours.

PR: (NSG 312 and NSG 360 and NSG 450) with a grade of C or better. Development of leadership and management skills necessary for professional nursing practice and interventions supporting multiple patients in acute-care complex systems. Classroom experiences paired with 225 hours of precepted leadership experience.

NSG 435. Cardiology for Nursing. 2 Hours.

PR: Junior or Senior standing in BSN Program. Introduction to the interpretation and treatment of cardiac arrhythmias.

NSG 450. Alterations in Mental Health. 4 Hours.

PR: NSG 310 and NSG 312 and NSG 320 and NSG 360 with a minimum grade of C- in each. Theory and Practice of professional nursing in response to complex alterations in psychosocial function and their impact on individuals, families, and communities. Classroom and clinical experiences.

NSG 460. Care of the Critically Ill Patient. 4 Hours.

PR: NSG 312 and NSG 411 and NSG 450 with a minimum grade of C- in each. Focuses on the professional nursing role in supporting individuals and families experiencing complex physiological alterations in health. Paired with clinical experiences supporting individuals and families in critical care settings.

NSG 478. The Role of the Nurse in the Patient Experience. 2 Hours.

PR: NSG 212 with a minimum grade of C-. Didactic experience focused on exploring the nurse's role in the patient's and family's healthcare experience.

NSG 480. Core Concepts in Gerontological Nursing. 2 Hours.

PR: NSG 211 and NSG 212 with a minimum grade of C- in each and Junior or Senior standing. Examination of patient specific concepts, nursing assessments, interventions, and models of care that guide nursing practice related to holistic care of the older adult.

NSG 481. Cardiac Nursing. 2 Hours.

PR: NSG juniors and seniors. Introduction to the interpretation and treatment of cardiac arrhythmias.

NSG 482. Palliative Care Nursing. 2 Hours.

Focus is on the care of patients with chronic non-curable conditions across the life span. The course analyzes the definition of palliative care and defines the role of hospice as a part of palliative care. Cultural sensitivity and communication with palliative care patients and their families is emphasized.

NSG 483. Holistic and Integrative Nursing. 2 Hours.

PR: NSG 212 with a minimum grade of C-. Theory and principles of holistic nursing and an introduction to alternative/complementary health therapies. Experiential learning and application of content to clinical setting will be explored.

NSG 484. Care of the Diabetic Patient. 2 Hours.

PR: Consent. In-depth analysis of nursing care of the patient with diabetes.

NSG 485. Children With Complex Health Needs. 2 Hours.

PR: NSG 320 with a minimum grade of C-. The nursing care of children with complex acute and chronic health problems with a focus on decision-making using a case study problem based learning approach.

NSG 486. NCLEX Review. 1 Hour.

PR: Senior status. Focuses on achievement of professional success by preparing for RN licensure. Preparation for NCLEX will be the focus of this by enhancing NCLEX testing skills.

NSG 487. Movies and Mental Health. 2 Hours.

Representations of psychopathological states in films within the context of contemporary social issues such as stigma and discrimination. Examination of personal biases towards psychiatric illnesses and how biases interfere with advocacy roles of practicing nurses.

Office Systems Technology

OSTC 107. Medical Terminology 1. 3 Hours.

Introduction to medical terminology as it applies to the various body systems and practical application in medical office procedures.

OSTC 108. Medical Terminology 2. 3 Hours.

PR: OSTC 107. Continuation of OSTC 107 with an emphasis in medical office procedures.

OSTC 113. Basic Formatting. 3 Hours.

PR: Minimum typing speed: 30 wpm. Designed for students who have had previous training in keyboarding. Emphasis on letter formatting styles, manuscript formatting, tables, envelopes, and business forms.

OSTC 115. Formatting and Editing. 3 Hours.

PR: Minimum typing speed: 30 wpm. Designed for students who have had previous training in keyboarding. Emphasis on document formatting and editing to include proper use of grammar, punctuation, spelling, capitalization and number usage.

OSTC 119. Office Training. 3 Hours.

PR: OSTC 113 or consent of instructor. Open to Office Technology Majors only A course combining theory with the actual practice embodied in the courses above. Hands on experience is stressed on various machines in the department-- dictating and transcribing equipment; facsimile machine; and photocopy machines. Office grooming, office etiquette, different types of office work, and other topics pertinent to an office are studied and discussed.

OSTC 221. Word Processing. 3 Hours.

PR: OSTC 113 or consent of the instructor. This course provides study in the theories and practical applications of word processing for employment or home use.

OSTC 222. Office Automation. 3 Hours.

PR: CS 101 or CIS 100 and OSTC 113 or consent of the instructor. This course provides an evolutionary perspective on today's changing office. Topics include information flow and management, communications, replication, and records management.

OSTC 223. Directed Office Experience. 3 Hours.

This course is open to students in the BTEC and OSTC programs during the final semester of study or with advisor permission. Students are placed in appropriate work sites in the community and surrounding area to participate in an on-the-job training experience. (A minimum of 56 hours is required.)

OSTC 240. Fundamentals of Desktop Publishing. 3 Hours.

Current hardware and software used in desktop publishing (Microsoft's Publisher). Students will complete projects developed to train the user in basic hardware and software applications.

OSTC 250. Business Grammar Applications. 3 Hours.

Punctuation, spelling, plurals, capitalization, numbers, word usage, proofreading. Proper use of office reference manual.

OSTC 252. Interpersonal Relations. 3 Hours.

Meeting management, problem solving, delegation, conflict resolution motivation, job application process, and professional ethics.

Physical Education/Training

PET 124. Human Body: Structure and Function. 2 Hours.

Overview of the structure and function of the organ systems in the human body. Topics covered include the skeletal, muscular, nervous, digestive, respiratory, and cardiovascular systems.

PET 125. Principles of Human Movement. 2 Hours.

PR: PET 124. This course is designed to introduce prospective physical educators to the principles of human movement. Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

PET 167. Introduction to Physical Education. 3 Hours.

Overview of physical education teaching profession including career opportunities, critical current issues/ trends, professional standards, and the professional organizations.

PET 175. Motor Development. 2 Hours.

To examine changes in human movement behavior across the lifespan, the processes that underline these changes, and the factors that contribute to those changes.

PET 244. Motor Learning and Performance. 2 Hours.

Introduction to principles related to teaching, learning, and performance of motor skills. Emphasizes the application of knowledge to teaching and learning strategies for motor-skill acquisition.

PET 276. Special Physical Education. 2 Hours.

Examines motor developmental characteristics of various handicapped groups and emphasizes physical education role in remediating possible developmental deficiencies.

Physical Education

PE 101. Badminton. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in badminton.

PE 103. Beginning Basketball. 1 Hour.

(May be repeated for a maximum of 2 credit hours). This course is designed to provide historical background, rules and regulations, and fundamental skills. These will be accomplished through instruction, drills, games and class team play.

PE 107. Basketball Conditioning/Weight Training. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to basic conditioning and weight training techniques for basketball.

PE 108. Football Conditioning/Weight Training. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to basic conditioning and weight training techniques for football.

PE 109. Baseball Conditioning/Weight Training. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to basic conditioning and weight training techniques for baseball.

PE 110. Military Physical Conditioning. 1 Hour.

(May be repeated for a maximum of 2 credit hours).

PE 115. Volleyball Conditioning/Weight Training. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to basic conditioning and weight training techniques for volleyball.

PE 121. Zumba. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Fuses various fast and slow Latin rhythms and movements with resistance training to create dynamic fitness routine, balance, and introduces breathing techniques to increase energy and focus.

PE 122. Billiards. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in billiards.

PE 124. Fitness Walking. 1 Hour.

(May be repeated for a maximum of 2 credit hours). This course provides a supervised walking program in a safe, enjoyable environment. Classes meet ACSM guidelines for safe, effective classes. Includes warm-up, cardiovascular segment, cool-down, and stretch.

PE 125. Aerobics. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in aerobics.

PE 130. Flag Football. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in flag football.

PE 145. Karate. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in karate.

PE 146. Self-Defense. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in self-defense.

PE 149. Tae Kwon Do. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in tae kwon do.

PE 152. Beginning Kickboxing. 1 Hour.

(May be repeated for a maximum of 2 credit hours). An introduction to the popular martial art and competitive sport of kickboxing. Emphasis is given to building flexibility and strength, the foundations of powerful kicking and punching techniques.

PE 153. Yoga for Fitness. 1 Hour.

(May be repeated for a maximum of 2 credit hours). This course introduces the student to basic yoga techniques that can be practiced as a way of developing a wide variety of sports.

PE 157. Slow Pitch Softball. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in slow pitch softball.

PE 159. Soccer. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in soccer.

PE 160. Beginning Tennis. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in tennis.

PE 164. Weight Training. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in weight training.

PE 165. Conditioning. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in conditioning.

PE 170. Volleyball. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in volleyball.

PE 182. Bowling. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduction to beginning knowledge and skills in bowling.

PE 187. Golf. 1 Hour.

(May be repeated for a maximum of 2 credit hours). The course is designed to introduce students to the rules, skills, and strategies involved in golf.

PE 201. Pilates. 1 Hour.

(May be repeated for a maximum of 2 credit hours). Introduces students to basic techniques, postures, and controlled breathing designed to build core strength, improve flexibility, and increase physical fitness in a non-competitive atmosphere.

PE 202. Intermediate Yoga. 1 Hour.

(May be repeated for a maximum of 2 credit hours). PR: PE 153 or previous yoga experience. Emphasizes poses which build a combination of strength, flexibility, balance, and introduces breathing techniques to increase energy and focus. Moderately paced for students with previous yoga practice.

PE 223. Net and Wall Games. 1 Hour.

This teaching games for understanding (TGfU) course is designed to introduce the students to the rules, skills, and strategies involved in playing net and wall games.

Philosophy

PHIL 100. Problems of Philosophy. 3 Hours.

An elementary examination of such philosophical problems as the mind-body problem, the existence of God, freedom and determinism, and the nature of persons and their knowledge.

PHIL 140. Historical Introduction to Philosophy. 3 Hours.

An introductory survey of the major philosophers and philosophical movements from ancient times to the present.

PHIL 170. Introduction to Critical Reasoning. 3 Hours.

An elementary study of critical thinking and reasoning. For students who want to improve their skills in recognizing fallacious patterns of reasoning, constructing acceptable arguments, and criticizing faulty lines of reasoning.

PHIL 331. Health Care Ethics. 3 Hours.

PR: 3 hours philosophy or pre-med or health sciences student. Topics: Clinician- patient relationship, life-sustaining treatment, physician assisted death, physician-nurse conflicts, confidentiality, research, reproductive technology, abortion, maternal/fetal conflicts, genetics, rationing, and access.

Physics

PHYS 101. Introductory Physics. 4 Hours.

PR or CONC: MATH 128 or MATH 129 or MATH 150 or MATH 153 or MATH 154 or MATH 155 or MATH 156 or consent or satisfactory performance on MATH departmental placement exam. The fundamental philosophy and principles of physics are applied to studies of mechanics, sound, heat, and thermodynamics through demonstrations, problems, and experiments. Pre-requisites and/or co-requisites may differ on regional campuses.

PHYS 102. Introductory Physics. 4 Hours.

PR: PHYS 101. The fundamental philosophy and principles of physics are applied to studies of electricity, magnetism, optics, light, and atomic and nuclear physics through demonstrations, problems, and experiments. Pre-requisite(s) and/or co-requisite(s) may differ on regional campuses.

PHYS 105. Conceptual Physics. 4 Hours.

Basic principles of physics and their relationship to our modern technological society. Major topics include properties of matter, electricity, optics, motion, heat and temperature, and energy. Nonmathematical approach emphasized.

PHYS 111. General Physics. 4 Hours.

PR: MATH 155 with a grade of C or better or (MATH 153 with a grade of C or better and PR or CONC: MATH 154). Survey of classical mechanics, thermodynamics and waves.

PHYS 112. General Physics. 4 Hours.

PR: PHYS 111. Survey of electricity, magnetism, and optics.

Plant Science

PLSC 206. Principles of Plant Science. 4 Hours.

Anatomy, morphology, and physiology of higher plants. Study of growth and development of economically important plants, their culture, and products.

Political Science

POLS 102. Introduction to American Government. 3 Hours.

General survey of American national government and politics.

POLS 103. Global Political Issues. 3 Hours.

Analysis of issues in post-cold war international politics, ranging from traditional major power diplomacy and intervention to the newer problems of economic interdependence and development, human rights, population pressures on limited resources, and the environment.

POLS 210. Law and the Legal System. 3 Hours.

Introductory course on the role of law in the political system. Includes a survey of subfields in United States law and an examination of participants, processes, and policy making in the United States legal system.

POLS 220. State and Local Government. 3 Hours.

The legal basis, structure, politics and operation of state and local governments, in the content of the American federal system.

POLS 250. Introduction to Comparative Politics. 3 Hours.

An introduction to the political and governmental systems of industrialized and developing countries. Focuses on approaches to comparative political study, political cultures and participation, and government structures, processes, and policy performance.

POLS 260. Introduction to International Relations. 3 Hours.

Theories and concepts in international politics and their application to contemporary world politics.

POLS 311. Political Parties & Elections. 3 Hours.

Parties and elections in America; emphasis on nomination and general election processes, campaigns, the mass media, campaign finance, voting, the electoral college, and parties in government.

POLS 313. American Constitutional Law. 3 Hours.

The role of the Constitution in the American political system. Topics include the political concept of constitutionalism; the role of the Supreme Court in the political process; division of powers among the three branches of government; and the constitutional relation between the national government and the states.

POLS 353. Western Democratic Governments. 3 Hours.

Cross-national and/or comparative based analysis of selected western democracies, such as Canada, Great Britain, France, Italy, and the European Union.

Psychology

PSYC 101. Introduction to Psychology. 3 Hours.

Survey of general psychology.

PSYC 201. Psychology as a Profession. 1 Hour.

PR: PSYC 101. Orientation to opportunities for experience, employment, and graduate and professional training in psychology.

PSYC 202. Research Methods in Psychology. 3 Hours.

PR: PSYC 101 and (STAT 201 or STAT 211). Research methods in experimental, developmental, clinical, and community-social psychology in the laboratory and the natural environment.

PSYC 203. Research Methods & Analysis 1. 3 Hours.

PR: PSYC 101 and (MATH 124 or higher, or a satisfactory ACT/SAT math score, or satisfactory math placement exam performance). Research methods and data analysis utilizing descriptive and correlational designs in developmental, experimental, clinical, and social psychology in the laboratory and the natural environment.

PSYC 204. Research Methods & Analysis 2. 3 Hours.

PR: PSYC 203 with a minimum grade of C-. Research methods and data analysis utilizing experimental and quasi-experimental designs in developmental, experimental, clinical, and social psychology in the laboratory and the natural environment.

PSYC 231. Leadership and Human Relations. 3 Hours.

PR: PSYC 101. Concentrates on principles of psychology that can be applied to improving relations with others as well as being a more effective leader. Pragmatic orientation includes using the principles to solve problems in relationships, in small organizations, and in large systems.

PSYC 232. Sex Roles and Behavior. 3 Hours.

PR: PSYC 101. Relates sex-typed behavior to physiological, social, and cultural processes. Current social concerns such as rape and abortion legislation, child care, and expanded career options for both sexes are examined from a psychological perspective.

PSYC 241. Introduction to Human Development. 3 Hours.

PR: PSYC 101. Survey of human psychological development across the life span with emphasis on change in biological, cognitive, and social-emotional processes. Special attention given to theoretical, conceptual, methodological, and practical issues.

PSYC 251. Introduction to Social Psychology. 3 Hours.

PR: PSYC 101. Examination of social interaction and behavior from a psychological perspective. Topics include: attraction, social perception and cognition, attitudes and attitude change, social influence and group process, prosocial behavior and aggression, cultural influence, and prejudice.

PSYC 281. Introduction to Abnormal Psychology. 3 Hours.

PR: PSYC 101. Introduction to major categories of behavior disorders; etiology, prevention and treatment.

PSYC 343. Child and Adolescent Development. 3 Hours.

PR: PSYC 241 and junior or senior standing. Theory and research on major psychological processes in childhood and adolescence; maturation, personality, socialization, sensory, and cognitive development.

PSYC 345. Adulthood and Aging. 3 Hours.

PR: PSYC 241 and junior or senior standing. Psychological issues in the study of adulthood, with an emphasis on the characteristics of older adults. Topics include the psychosocial and biological context of aging, cognitive and personality changes from early to late adulthood, psychopathology in later life, dementia, issues in caregiving, and death and dying.

PSYC 382. Exceptional Children. 3 Hours.

PR: PSYC 241 and junior or senior standing. Exceptional mental retardation or advancement; organic disabilities having behavioral consequences, such as cerebral palsy or deafness; and behavior disorders.

PSYC 490. Teaching Practicum. 1-3 Hours.

PR: Consent. Teaching practice as a tutor or assistant.

PSYC 491. Professional Field Experience. 1-18 Hours.

PR: Consent. (May be repeated up to a maximum of 18 hours.) Prearranged experimental learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.

Reading

RDNG 403. Literature for Children. 3 Hours.

A survey of children's literature, with attention to historical development as well as current trends. Emphasizes selection, critical evaluation, and utilization of literary materials for developmental, recreational, and curriculum needs. Appropriate media included.

Religious Studies

RELG 102. Introduction to World Religions. 3 Hours.

This course explores five of the most widely practiced world religions; Judaism, Christianity, Islam, Hinduism, and Buddhism. Students are introduced to the history and basic tenets of each faith.

RELG 303. Studies in Christian Scripture. 3 Hours.

This course explores the origin and development of the Christian Bible. The historical, cultural, and religious settings of the texts, as well as their theological intent, will be examined.

Sustainable Agriculture Entrepreneurship

SAGE 141. Introduction to Horticulture and Agronomy. 3 Hours.

Hands-on introduction of concepts for crops and soils; evaluation of entrepreneurial benefit for farm income; small farm enterprise; basics of crop needs; and crop scheduling.

SAGE 215. Agricultural Marketing. 3 Hours.

PR: ARE 150. Broad view of marketing; food, timber, product markets and consumption; marketing functions and institutions; practical knowledge and application capabilities for the marketing of agricultural products; exploration of current marketing methods for agricultural products and services; development of efficient, effective marketing schemes and exploration of value-added products.

SAGE 231. Innovation Exploration Seminar. 1 Hour.

Exploration of current issues in the production agriculture arena; agricultural innovations, environmental farming considerations, farming techniques and food production issues producing a preliminary farm enterprise plan and business documents.

SAGE 240. Applied Horticulture and Agronomy. 3 Hours.

PR: SAGE 141. Building on the information learned in SAGE 141, evaluation of the entrepreneurial benefits to the farmer based on; soil management, the harvesting of crops, post-harvest handling methods, point of sale condition, processing and valued added aspects of horticultural and agronomic crops.

SAGE 260. Applied Animal Husbandry. 3 Hours.

PR: A&VS 251. A hands-on study of the production of animals and animal products. Development of animal farming best management plans based on nutrition, physiology, genetics, hygiene, physical environment, economics and daily work requirements.

SAGE 270. Woodlot Management. 3 Hours.

An introduction to the concepts of forest management, with a focus on small woodlots; many facets of the management of forest acreage; and lab-based training on basic forestry and forest management related field methods and data analysis.

SAGE 280. Principles of Ag Entrepreneurship. 3 Hours.

Exploration of the creative processes used by entrepreneurs and of the skills needed to successfully operate an entrepreneurial venture in the agricultural and forestry arenas.

SAGE 312. Integrated Pest Management. 3 Hours.

In depth exploration of crop/animal pest and disease management, sanitation in disease prevention, identification of symptoms, current treatments of disease, insect identification methods, insect scouting, insect control methods, weed identification and beneficial organisms for sustainable production.

SAGE 318. Agricultural Project Management. 3 Hours.

This course provides an understanding of the processes, tools, and practical knowledge needed to successfully manage agricultural projects. Students apply concepts to manage a typical project found in industry.

SAGE 386. Junior Farm Work Experience 1. 3 Hours.

This course will guide the development of the business planning for agriculture or forestry enterprises. With the in class problem-solving exercises, the enterprises will be evaluated for their human resources, strategic objectives and financial considerations. By the end of the course the business description section of personal business plan will be completed.

SAGE 387. Junior Farm Work Experience 2. 3 Hours.

PR: SAGE 386. This course will guide the development of the business planning for agriculture or forestry enterprises. With the in-class problem-solving exercises, enterprise vision statements, mission statements and goals will be developed. The enterprise operations section of their personal farm business plan will be developed.

SAGE 446. Advanced Agriculture & Forestry Entrepreneurship. 3 Hours.

PR: BUSA 310 or SAGE 280. This course will build on concepts covered in SAGE 280 or BUSA 310 to discuss business formation and how the development of the entrepreneurial mindset can lead to the successful formation and operation of agriculture and forestry enterprises.

SAGE 451. Value-added Agriculture/Forestry Enterprises. 3 Hours.

PR: SAGE 446. The study of agriculture and forestry enterprises where you capture value or create value by marketing a unique product, filling a market niche, simplifying the supply chain, providing a service, or lowering costs.

SAGE 486. Senior Farm Work Experience 1. 3 Hours.

PR: SAGE 387. This course will guide the development of creative and entrepreneurial business planning for agriculture or forestry enterprises. With the in-class creativity and brain-storming activities the students will develop their enterprise strategic plan. By the end of the course the financial section of personal business plan will be completed.

SAGE 487. Senior Farm Work Experience 2. 3 Hours.

PR: SAGE 486. This course will guide the development of creative and entrepreneurial business planning for agriculture or forestry enterprises. With in-class creativity and brain-storming activities the students will develop their specialized test market(s) to match their specific enterprise. By the end of the course the student's personal farm business plan will be completed.

Sport and Exercise Psychology

SEP 271. Sport in American Society. 3 Hours.

Sociocultural investigation of sport in American society.

SEP 272. Psychological Perspectives of Sport. 3 Hours.

An examination of personality and behavioral factors as they affect participation in sport. Topics such as stress and sport, body image, aggression and the sport participant, and the licensure of sport psychologists highlight the course.

SEP 373. African Americans in Sports. 3 Hours.

Sociocultural and historical overview of the contributions of African Americans in sport in America.

SEP 385. Social Psychology of Sport. 3 Hours.

PR: SEP 271 and SEP 272 or consent. An introduction to the study of how and why performance is affected by interactions with others in sport.

Sport Management

SM 167. Introduction to Sport Management. 3 Hours.

Overview of the sport management profession including career opportunities, critical current issues, trends, professional standards and the professional organizations.

Sociology and Anthropology

SOCA 101. Introduction to Sociology. 3 Hours.

Basic course intended to develop a perspective about the nature of social processes and the structure of society.

SOCA 105. Introduction to Anthropology. 3 Hours.

Essentials of human evolution and prehistory with a concentration on the varieties of languages and cultures found among peoples of the world.

SOCA 199. Orientation to Sociology and Anthropology. 1 Hour.

Orientation to degree programs and requirements, departmental resources, curriculum options, student responsibilities and opportunities.

SOCA 207. Social Problems in Contemporary America. 3 Hours.

Sociological analysis of the causes, effects and approaches to preventing and reducing social problems in American society.

SOCA 221. Families and Society. 3 Hours.

Historical comparative approach to changing structure and functions of the family institution. Effect of economic, demographic, and cultural changes on relationships, gender roles, marriage, childcare; variations by socioeconomic status, race, ethnicity, gender, sexual orientation.

SOCA 223. Death and Dying. 3 Hours.

Sociological and anthropological perspectives on death and dying. Examines sociopsychological and structural factors supporting the beliefs and practices associated with the institution of death, both historically and in contemporary society.

SOCA 232. Criminology. 3 Hours.

PR: SOCA 101. Exploration of various theories of criminal behavior; emphasis on a critical study of the criminal justice system and efforts to reform the penal system.

SOCA 235. Race and Ethnic Relations. 3 Hours.

Racial and ethnic groups are examined in terms of their history, transformation over time, and the contemporary conditions and issues they face. Emphasis is on prejudice as well as systemic racism.

SOCA 252. Biological Anthropology. 3 Hours.

Fossil evidence for human evolution, racial variation, and relationship between biology and behavior.

SOCA 254. Cultural Anthropology. 3 Hours.

Introduction to the history, methods, and current directions of cultural anthropology. Focus on living cultures across the world, encompassing the whole range of human activities. Consideration of identity, economy, politics, kinship, meaning, language, and inequality.

SOCA 302. Deviant Behavior. 3 Hours.

PR: SOCA 232 and (SOCA 234 or CJ 101) or consent. Examination of the processes by which deviance is defined in society, and the methods of social control attempted. Provides a critical understanding of society from the perspective of those defined as outsiders-criminals, addicts, etc.

SOCA 312. Death and Dying. 3 Hours.

This course explains the issues and problems associated with death in American society. Topics such as changing attitudes, grief, funeral practices, life after death, the dying patient, and widowhood are presented from a variety of perspectives.

SOCA 323. Sociology of Rural Life. 3 Hours.

PR: SOCA 101 or consent. Social aspects of rural living. Characteristics of rural population, social structure, and institutional arrangements: family, community, education, religion, recreation, health, welfare, and local government.

SOCA 495. Independent Study. 1-6 Hours.

Faculty supervised study of topics not available through regular course offerings.

Social Work

SOWK 105. Social Welfare Institutions. 3 Hours.

Examines the historical development of social welfare in the United States and the values that shape social welfare institutions. (3 hr. lec.).

SOWK 147. Human Diversity. 3 Hours.

(Must be completed before applying to the major.) Covers a range of diverse populations especially those historically subjected to oppression and social and economic injustice. Addresses the causes and effects of institutionalized forms of oppression.

SOWK 151. Introduction to Social Work. 3 Hours.

PR: Consent. (Must be completed before applying to the major.) Overview of the social welfare field and social work profession. Emphasizes social work values and ethics.

Spanish

SPAN 101. Elementary Spanish 1. 3 Hours.

PR: Score of S1 on placement test or no prior study of the language or departmental consent. Introduction to the sound and writing systems of the language with emphasis on listening, speaking, reading and writing within an authentic cultural context. (Course presumes no prior knowledge of the language.).

SPAN 102. Elementary Spanish 2. 3 Hours.

PR: SPAN 101 or score of S2 on placement exam. Continuation of SPAN 101. Introduction to the sound and writing systems of the language with emphasis on listening, speaking, reading, and writing within an authentic cultural context.

SPAN 203. Intermediate Spanish 1. 3 Hours.

PR: SPAN 102 or score of S3 on placement exam. Continuation of SPAN 102.

SPAN 204. Intermediate Spanish 2. 3 Hours.

PR: SPAN 203 or score of S4 on placement exam. Foundation for advanced study of Spanish. Emphasis on oral and written communication.

SPAN 293. Special Topics. 1-6 Hours.

PR: Consent. Investigation of topics not covered in regularly scheduled courses.

SPAN 495. Independent Study. 1-6 Hours.

Faculty supervised study of topics not available through regular course offerings.

Statistics

STAT 111. Understanding Statistics. 3 Hours.

Introduction to basic concepts and ideas of statistics. Methodologies and case studies to prepare students to understand the use of statistics in the mass media and professional publications in their major field of study. Not open to students who have earned credit for STAT 211 or STAT 215.

STAT 211. Elementary Statistical Inference. 3 Hours.

PR: WVU and PSC sections require MATH 122 with a minimum grade of C- or MATH 124 or higher, or advanced placement, Tech sections require MATH 124 or higher, or advanced placement. (Not open to students who have completed STAT 215.) Basic concepts of descriptive and inferential statistics: descriptive measures, random variables, sampling distributions, estimation, tests of hypotheses, chi-square tests, regression and correlation. (Equivalent to ECON 225.).

STAT 215. Introduction to Probability and Statistics. 3 Hours.

PR: MATH 156. Probability, random variables, discrete and continuous probability distributions, joint probability distributions, and expected value. The central limit theorem. Point and interval estimation and tests of hypotheses. Chi-square tests, linear regression, and correlation.

Theatre

THET 102. Acting. 3 Hours.

(Open to all students.) Basic theories and concepts in stage acting for the beginning student. Emphasis on the physical, intellectual, emotional, and personality languages of acting.

THET 200. Production Practicum. 1 Hour.

PR: THET 104 or THET 106 or consent. (May be repeated for a maximum of 4 hours.) Assigned theatre projects as an introduction to the elements of theatrical production.

Library Instruction

ULIB 101. Introduction to Library Research. 2 Hours.

Focuses on the concepts and logic of information access including using the libraries' online catalog, various databases and the Internet to find quality information. Incorporates hands-on practice with electronic resources for research and synthesis of information.

Undergraduate Studies

UGST 270. Introduction To Health Careers. 1 Hour.

A study of careers in the health professions. Readings, lectures, and discussions by professionals in many health fields will include the educational requirements for and functions of their respective health professions. (Pass/fail grading only.).

Women and Gender Studies

WGST 170. Introduction to Women's and Gender Studies. 3 Hours.

The major contexts in which gender identities have been and are defined and of the relationships between these definitions and the roles and history of women and men in society and culture.

WGST 340. Gender and Violence. 3 Hours.

Gender violence has implications for all members of society. This course will examine violence in the lives of women across the lifespan. Etiology, theories, effects, and prevention modalities will be evaluated.

Wildlife and Fisheries Management

WMAN 100. The Tradition of Hunting. 3 Hours.

Introduction to the cultural and spiritual role of hunting; use of hunting as a wildlife management tool; and its economic value in wildlife conservation programs. Includes discussions on gun control, anti-hunting, and animal rights.

WMAN 150. Principles of Conservation Ecology. 3 Hours.

Overview of the science of conservation ecology with emphasis on the concepts of biological diversity, extension, habitat loss and fragmentation, establishment of protected areas, endangered species, and establishment and preservation of new populations.

WMAN 450. Advanced Wildlife and Fisheries Management. 4 Hours.

PR: WMAN 300. Principles and practices of wildlife and fisheries habitat and species management.

WV University Experience

WVUE 191. First Year Seminar. 1-3 Hours.

Exploration of academic experiences through meaningful contexts. The course will envelope a range of academic components needed to achieve student success and successfully transition to West Virginia University.