2018-2019
COURSE DESCRIPTIONS AND PREREQUISITES

College of the Sciences

ANTH 107: Being Human: Past and Present (5). Exploration of being human throughout the world from the earliest human ancestors to today using archaeological, biological, cultural and linguistic anthropology methods and perspectives.

BIOL 101: Fundamentals of Biology (5). Introduction to scientific inquiry and basic principles of biology at molecular, cellular, organismal, community, and ecosystem levels as applied to humans, society, and the environment.

BIOL 201: Human Physiology (5). An introduction to the function of human cells, organs, and organ systems as it relates to health and well-being, current developments, and society.

ENST 201: Earth as an Ecosystem (5). Introduction to the concept of our planet as a finite environment with certain properties essential for life and will explore dynamic nature of the earth’s physical, chemical, geological, and biological processes and their interrelated “systems”.

ENST 202: Environment and Society (5). The physical and cultural dimensions of environmental problems with particular emphasis given to the interaction between ecosystems, basic resources, population dynamics, and culture.

MATH 101: Mathematics in the Modern World (5). Selected topics from the historical development and applications of mathematics together with their relationship to the development of our present society. **Prerequisite:** Student must score 500+ on the SAT (Pre-2016) Math, or 530 SAT Math Section, or 26.5 SAT Math Test, or 19+ on the ACT Math, or 50+ on the Compass Pre-Algebra, or 26+ on the Compass Algebra, or 31+ on the Compass College Algebra, or 31+ on the Compass Trigonometry, or 60+ on the Accuplacer Elementary Algebra exam, or 100+ on the Accuplacer Arithmetic Exam, or 3+ on the Smarter Balance Exam, or 46% on the ALEKS, or 148+ on MPT General, or 145+ on MPT Advanced, or 1yr high school calculus with B average, or have already passed a higher level math course.

MATH 102: Mathematical Decision Making (5). Selected topics from probability, statistics, and mathematical decision making with real-world application. **Prerequisite:** Student must score 500+ on the SAT (Pre-2016) Math, or 530 SAT Math Section, or 26.5 SAT Math Test, or 19+ on the ACT Math, or 50+ on the Compass Pre-Algebra, or 26+ on the Compass Algebra, or 31+ on the Compass College Algebra, or 31+ on the Compass Trigonometry, or 60+ on the Accuplacer Elementary Algebra exam, or 100+ on the Accuplacer Arithmetic Exam, or 3+ on the Smarter Balance Exam, or 46% on the ALEKS, or 148+ on MPT General, or 145+ on MPT Advanced, or 1yr high school calculus with B average or have already passed a higher level math course.

MATH 130: Finite Mathematics (5). The language of sets, counting procedures, introductory probability, decision-making and introductory descriptive statistics. Meets General Education “reasoning” requirement and prepares student for introductory statistics courses in various departments. **Prerequisite:** Student must score 500+ on the SAT (Pre-2016) Math, or 530 SAT Math Section, or 26.5 SAT Math Test, or 19+ on the ACT Math, or 50+ on the Compass Pre-Algebra, or 26+ on the Compass Algebra, or 31+ on the Compass College Algebra, or 31+ on the Compass Trigonometry, or 60+ on the Accuplacer Elementary Algebra exam, or 100+ on the Accuplacer Arithmetic Exam, or 3+ on the Smarter Balance Exam, or 46% on the ALEKS, or 148+ on MPT General, or 145+ on MPT Advanced, or 1yr high school calculus with B average or have already passed a higher level math course.

MATH 153: Pre-calculus Mathematics I (5). A foundation course which stresses those algebraic and elementary function concepts together with the manipulative skills essential to the study of calculus. **Prerequisite:** Student must score 66+ on the Compass Algebra, or 31+ on the Compass College Algebra, or 31+ on the Compass Trigonometry, or 148+ on the MPT General Math, or 150+ on MPT Advanced Math, or 85+ on the Accuplacer Elementary Algebra Exam, or 35+ on the Accuplacer College Math Exam, or 51% on the ALEKS, or 1 year high school calculus with B average.

MATH 154: Pre-calculus Mathematics II (5). A continuation of MATH 153 with emphasis on trigonometric functions, vectors, systems of equations, the complex numbers, and an introduction to analytic geometry. **Prerequisite:** Student must have already passed MATH 153 with a grade of a C or higher, or 150+ on the MPT Advanced Math, or 46+ on the Compass College Algebra, or 31+ on the Compass Trigonometry, or 65+ on the Accuplacer College Math Exam, or 61% on the ALEKS.

MATH 172: Calculus I (5). Theory, techniques and applications of differentiation and integration of the elementary functions. **Prerequisite:** Student must have already passed MATH 154 with a grade of a C or higher, or 152+ on the MPT Advanced Math, or 46+ on the Compass Trigonometry, or 100+ on the Accuplacer College Math Exam, or 76% on the ALEKS.
MATH 173: Calculus II (5). Theory, techniques and applications of differentiation and integration of the elementary functions. **Prerequisite:** Student must have already passed MATH 172 with a grade of a C or higher, or 3+ on AP Calculus AB.

MATH 265: Linear Algebra I (4). **Description:** Vector spaces, linear systems, matrices, and determinants. **Prerequisite:** Student must have already passed MATH 173 with a grade of C or higher or scored a 3+ on AP Calculus BC.

MATH 272: Multivariable Calculus I (5). Differential and integral calculus of multivariable functions and related topics. **Prerequisite:** Student must have already passed MATH 173 with a grade of a C or higher or 3+ on AP Calculus BC.

MATH 273: Multivariable Calculus II (5). Differential and integral calculus of multivariable functions and related topics. **Prerequisite:** Student must have already passed MATH 272 with a grade of a C or higher.

PHYS 101: Introductory Astronomy I (5). An inquiry-based introduction to celestial motions, celestial objects, observational astronomy and the physics associated with each. Emphasis on stars and planets. **Prerequisite:** Eligible to enroll in MATH 101.

PHYS 103: Physics of Musical Sound (5). Basic principles of acoustics applied to the production of sound by musical instruments and the human voice. Related topics include musical scales, human hearing, sound synthesis, and recording technology.

PHYS 111: Introductory Physics I (5). An integrated experimental and analytical investigation of topics including kinematics and dynamics. This integrated lecture/laboratory course includes the analysis of physical systems using algebra and trigonometry along with inquiry-based activities and experimental investigation. **Prerequisite:** PHYS 110 OR eligible to enroll in MATH 172 OR successful completion of a comprehensive year-long high school pre-calculus course, or equivalent, the year prior to enrollment in PHYS 111. **Co-requisite:** PHYS 110 OR concurrent enrollment in a comprehensive year-long high school pre-calculus course, or equivalent.

PHYS 112: Introductory Physics II (5). An integrated experimental and analytical investigation of topics in rotational dynamics, wave mechanics, and conservation principles. This integrated lecture/laboratory course includes the analysis of physical systems using algebra and trigonometry along with inquiry based activities and experimental investigation. **Prerequisite:** PHYS 111

PHYS 181: General Physics I (5). An integrated experimental and analytical investigation of topics including kinematics and dynamics. This integrated lecture/laboratory course includes the analysis of physical systems using algebra, trigonometry, and calculus along with inquiry-based activities and experimental investigation. **Co or Prerequisite:** MATH 172.

PHYS 182: General Physics II (5). An integrated experimental and analytical investigation of topics in rotational dynamics, wave mechanics, and conservation principles. This integrated lecture/laboratory course includes the analysis of physical systems using algebra, trigonometry, and calculus along with inquiry based activities and experimental investigation. **Prerequisite:** PHYS 181 and Math 173. **Co-requisite:** MATH 173
POS 101: Introduction to Politics (5). This course explores the meanings of power, political actors, resources of power and how they are being used for what purposes, under what ideological, institutional and policy processes affecting our quality of life.

POS 210: American Politics (5). Origin and development of the United States government; structure, political behavior, organizations, and processes; rights and duties of citizens.

POS 270: International Relations (5). This course explores political issues and theories in international relations. This class will focus on issues of war and peace, international law and organization, foreign policy, diplomatic history, and international political economy.

PSY 101: General Psychology (5). The study of the basic principles, problems and methods that underlie the science of psychology, including diversity, human development, biological bases of behavior, learning, sensation and perception, cognition, personality, and psychopathology.

SOC 101: Social Problems (5). An introduction to the study of contemporary issues such as poverty, military policies, families, crime, aging, racial, ethnic conflict, and the environment.

SOC 107: Principles of Sociology (5). An introduction to the basic concepts and theories of sociology with an emphasis on the group aspects of human behavior.
College of the Arts and Humanities

ART 103: Art Appreciation (4). Art Appreciation is an introduction to artistic styles, periods of art, and artistic techniques and processes. It introduces students to the visual components of art, and considers the cultural, economic, and societal significance of art.

COM 345: Business and Professional Speaking (4). Oral communication in career and professional settings with focus on public presentations, briefings, and persuasion.

ENG 101: Composition I, Critical Reading and Responding (5). Develops skills necessary for academic writing, including summarizing, reading sources critically and responding to them, synthesizing multiple perspectives, and using academic writing conventions. Prerequisite: 26+ on the SAT Writing and Language Test and 27+ on the SAT Reading Test, or Evidence-Based Reading and Writing 560+, or 19+ on the ACT English, or 88+ on the Compass Reading and 8+ on the Compass E-write, or 86+ on the Accuplacer Reading Comprehension and 5+ on the Accuplacer Writeplacer, or 3+ on the Smarter Balance Exam.

ENG 102: Composition II, Reasoning and Research (5). Develops skills in research-based academic argument through assignments involving evaluation, analysis, and synthesis of multiple sources. Prerequisite: Student must have already passed ENG 101 with a grade of a C- or higher, or score 3+ on AP English Language and Comprehension Test, or 4+ on the HL IB Exam.

ENG 105: The Literary Imagination, An introduction to Literature (5). Human experience as it is imagined, interpreted, and made significant in the poetry, prose, fiction, and drama. Prerequisite: Student must have already passed ENG 101 with a grade of a C- or higher, or 3+ on AP English Language and Comprehension Test, or 4+ on the HL IB Exam.

FILM 250: Introduction to Film (5). Learning and applying motion picture vocabulary and aesthetic concepts through screenings, discussions, and writing. Emphasis on the social context, cultural influences, and aesthetic qualities of film. Formerly FVS 250, students may not receive credit for both. Prerequisite: ENG 101 and ENG 102 with a grade of C- or higher.

HUM 101: Exploring Cultures in the Ancient World (5). An interdisciplinary exploration from literature, history, philosophy, and the arts of selected major ancient civilizations in Asia, Africa, Europe and the Americas from their beginnings through the 15th century. Prerequisite: Student must have already passed ENG 101 with a grade of a C- or higher, or score 3+ on AP English Language and Comprehension Test, or 4+ on the HL IB English Exam.

HUM 102: Exploring Cultures from 16th through 19th centuries (5). An interdisciplinary exploration of selected literature, history, philosophy, and the arts in Asia, Africa, Europe and the Americas from the sixteenth through the nineteenth centuries. Prerequisite: Student must have already passed ENG 101 with a grade of a C- or higher, or score 3+ on AP English Language and Comprehension Test, or 4+ on the HL IB English Exam.
HUM 103: Exploring Cultures in Modern and Contemporary Societies (5). An interdisciplinary exploration of literature, history, philosophy, and the arts of selected world civilizations of the twentieth and twenty-first centuries. **Prerequisite:** Student must have already passed ENG 101 with a grade of a C-or higher, or score 3+ on AP English Language and Comprehension Test, or 4+ on the HL IB English Exam.

MUS 101: History of Jazz (5). History of artistic, cultural, and technological developments in jazz, focusing on important players and performances. Introduction to fundamental musical concepts and methods; emphasis on active listening, social justice, current issues.

MUS 102: Introduction to Music (5). Landmark composers, styles, and works of Western music history from the Middle Ages to the present. Fundamental musical concepts (melody, harmony, rhythm, form, etc.) are emphasized to develop student understanding and listening skills.


FR 152: First-year French (5). Conversational approach with intensive oral-aural drill. Firm foundation in the basic structural principles of the language. Courses must be taken in sequence. **Prerequisite:** Student must have already passed FR 151 with a grade of a C-or higher.

FR 153: First-year French (5). Conversational approach with intensive oral-aural drill. Firm foundation in the basic structural principles of the language. Courses must be taken in sequence. **Prerequisite:** Student must have already passed FR 152 with a grade of a C-or higher.

GERM 151: First-year German (5). Conversational approach with intensive oral-aural drill. Firm foundation in the basic structural principles of the language. Courses must be taken in sequence.

GERM 152: First-year German (5). Conversational approach with intensive oral-aural drill. Firm foundation in the basic structural principles of the language. Courses must be taken in sequence. **Prerequisite:** Student must have already passed GERM 151 with a grade of C-or higher.

GERM 153: First-year German (5). Conversational approach with intensive oral-aural drill. Firm foundation in the basic structural principles of the language. Courses must be taken in sequence. **Prerequisite:** Student must have already passed GERM 152 with a grade of C-or higher.


JAPN 152: First-year Japanese (5). Conversational approach with intensive oral-aural drill. Foundation in basic structural principles of the language. Courses must be taken in sequence. **Prerequisite:** Student must have already passed JAPN 151 with a grade of a C-or higher.

JAPN 153: First-year Japanese (5). Conversational approach with intensive oral-aural drill. Foundation in basic structural principles of the language. Courses must be taken in sequence. **Prerequisite:** Student must have already passed JAPN 152 with a grade of a C-or higher.
SPAN 151: First-year Spanish (5). Develop elementary skills in listening, speaking, reading and writing. Courses must be taken in sequence.

SPAN 152: First-year Spanish (5). Develop elementary skills in listening, speaking, reading, and writing. Courses must be taken in sequence. Prerequisite: Student must have already passed SPAN 151 with a grade of a C- or higher, or by placement exam

SPAN 153: First-year Spanish (5). Develop elementary skills in listening, speaking, reading and writing. Courses must be taken in sequence. Prerequisite: Student must have already passed SPAN 152 with a grade of a C- or higher, or by placement exam.

TH 107: Introduction to Theatre (4). Overview of the basic elements of the theatre arts and dramatic structure, and the environment for production of plays.
College of Education and Professional Studies

**EFC 250: Introduction to Education (4).** Introduction to teaching as career, foundations and overview of American public education, effective teachers, responsibilities of schools in democratic society, essential professional competences, preparation, and certification. Culturally anchored, and offers a framework of equity pedagogy.

**ETSC 101: Modern Technology and Energy (5).** A study of how basic scientific principles are applied daily in industrial societies through a survey of transportation, energy and power, construction, and consumer product technologies.


**ETSC 160: Computer-aided Design and Drafting (4).** Hands-on training in the operation of AutoCAD’s design and drafting software system with emphasis on features, limitations, and dimensioning strategy.

**ETSC 265: Three-dimensional Modeling (4).** Design of parts, assemblies, and working drawings using 3-D solid modeling software, basic theory of threaded fasteners and gears, welding representation, geometric dimensioning, and tolerancing. **Prerequisite:** Student must have already passed ETSC 160 with a grade of a D- or higher.

**ETSC 277: Introduction to Robotics (4).** An applied introduction to robotics with focus on programming pre-configured robotic systems using LabVIEW. **Prerequisite:** Student must seek permission from instructor before registering for ETSC 277.

**HED 101: Essentials for Healthy Living (4).** Essentials for Healthy Living is a survey course designed to give the student the practical and theoretical knowledge necessary to apply principles of overall wellness in the pursuit of a healthier lifestyle.

**IT 101: Computer Applications (3).** Basic skills in Windows, word processing, spreadsheets, databases, and presentations.

**MSL 314: Military History of the United States (5).** A comprehensive and systematic survey and analysis of the American military experience from colonial times through the Vietnam War.

**PEID 110: Beginning Badminton (1).** Beginning badminton is designed to introduce the student to the knowledge and basic skills of badminton and to develop those skills to a level that enables the student to participate in the sport at a beginning level.

**PEID 115: Beginning Golf (1).** Beginning golf is designed to introduce the student to proper golf etiquette, learn the terminology and rules and to implement correct swing technique.

**PEID 123: Beginning Tennis (1).** Beginning tennis is designed to introduce the student to the basic skills and knowledge of tennis and to develop that skill to a level that enables them to participate in the activity at a beginning level.
PEID 137: Hiking and Orienteering (1). This class provides the tools necessary to participate safely in outdoor hiking pursuits including: the “10 essentials,” clothing and equipment selection, basic survival skills, general first aid, basic map and compass reading, and basic packing techniques. This course also includes several short hikes as well as field experience in orienteering.

PEID 150: Archery (1). The course teaches the fundamentals of safe archery practice and basic of the archery equipment.

PEF 110: Conditioning Exercises (1). Conditioning is designed to introduce the student to the basic principles and training methods for body conditioning so the student can establish an exercise program, which enhances overall well-being. Includes: Warm-ups designed to elevate body temperature and prepare the body for more vigorous exercise, aerobic conditioning routines, strength conditioning routines, muscle toning routines, flexibility routines and components of a conditioning diary.

PEF 113: Weight Training (1). Weight training is designed to enhance the student’s knowledge and practices regarding the basic techniques of weight training using weight machines and some free weights. Includes: Myths of weight training, safety techniques, weight room etiquette, dress code, basic weight training exercises of major muscle groups, scientific basis of weight training, muscle hypertrophy and develop a personal program to meet individual needs and goals.

PEF 115: Jogging (1). Jogging is designed to provide the student with a basic grounding in the skills and knowledge required to participate in a safe and varied recreational jogging program. Including, for example: The role of warm-up prior to more vigorous activity.

PEF 122: Dance Fusion (1). Combines elements of traditional high and low-impact aerobics with Zumba, jazz, power yoga, and sport movements into basic combinations.

PEF 123: Aerobic Walking (1). Assessment of present level of cardio respiratory fitness and prescription of an individualized aerobic walking exercise program for increasing and maintaining fitness.

PEF 129: Abdominal Strength Conditioning (1). Course emphasizes strengthening and conditioning the abdominals and core muscles for appearance and for performance. Use of equipment for fun and effectiveness.

PEF 131: Frisbee (1). Encourages positive social interaction, develops eye-hand coordination skills, is recreational, and may be an avenue to encourage students to become more active in a gentle way.

PEF 150. Beginning Yoga (1). Participation in strengthening and then holding a variety of yoga postures. Will include demonstrations, benefits contraindication, and precautions of each posture.

DNCE 141: Jazz Dance 1 (1). Emphasis on American Jazz Dance.

DNCE 150: Mat Pilates (1). A beginning and intermediate-level class, mat Pilates is designed to increase core strength, coordination and flexibility.

PETS 110: Basketball (1). Basketball is designed to improve basketball skills and knowledge and to provide an awareness of basketball as a lifetime sport offering fun and fitness.
PETS 113: Soccer (1). Soccer is designed to introduce to the student the skills and knowledge necessary to participate successfully and enjoyably in the activity of soccer and to appreciate, by working within, the principles of team organization.

PETS 114: Softball, Slow Pitch (1). Softball is designed to introduce to the student the skills and knowledge necessary to participate successfully and enjoyably in the team activity of softball and to appreciate, by working within the principles of team organization. By the end of this course the student will be expected to demonstrate an understanding of and basic competence in the understanding rules of the games.

PETS 120: Table Tennis (1). Table tennis will teach skills used during pair and partner play that will increase the players ability to play faster with more accuracy.

PETS 122: Touch Rugby (1). Touch rugby is a non-contact introduction course that will provide students with the basic essentials to achieving success as a team player.

PEAQ 110: Springboard Diving (1). Springboard diving provides an introduction to beginning diving including proper technique and safety factors using both the one and three meter diving boards.

PEAQ 111: Beginning Swimming (1). Beginning swimming is designed to develop basic swimming skills to improved physical fitness through swimming and to introduce swimming as a lifetime activity offering fun and fitness. Prerequisite: Student must be a non-swimmer.

PEAQ 112: Swimming (1). Swimming is designed to refine basic swimming skills and to improve physical fitness through swimming. Prerequisite: Student must be able to swim 50 yards. If student has no swimming skills, student should enroll in the beginning course.

PEAQ 113: Advanced Swimming (1). Refinement of standard strokes and dives. Prerequisite: Student must have the ability to swim 200 yards continuously, employing at least three strokes.

PEAQ 221: Lifeguard Training (3). American Red Cross approved course for which certification may be granted. The course will include rescue technique, preventative lifeguarding and conditioning.

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