

Members present: Tim Scott (Chair), College of Science; James Herman (Vice Chair), College of Veterinary Medicine and Biomedical Sciences; Bob Knight, College of Agriculture and Life Sciences; Jon Jaspersen, Mays Business School; Patricia Campbell, Texas A&M Baylor College of Dentistry; Kisha Bryan, College of Education and Human Development; Matthew Pariyothorn (for Prasad Enjeti), Dwight Look College of Engineering; Chris Houser, College of Geosciences; Steve Oberhelman, College of Liberal Arts; Brian Holland, College of Nursing; Jennifer Ross, School of Public Health; Grace Townsend (for Glenn Jones), Texas A&M University at Galveston; Kristin Harper (for Ann Kenimer), Undergraduate Studies; John Louis Bolch, Office of the Registrar.

Guests: Gail Rowe, Department of Aerospace Engineering; Tracy Rutherford, Department of Agricultural Leadership, Education and Communications; David Forrest, Department of Animal Science; David Peterson, Department of Biochemistry and Biophysics; Ashlea Schroeder, Department of Biological and Agricultural Engineering; Maria Lyons, Department of Biomedical Engineering; Jay Porter, Department of Engineering Technology and Industrial Distribution; Felipe Hinojosa, Department of History; Andy Banerjee, Department of Industrial and Systems Engineering; Timothy Jacobs, Department of Mechanical Engineering; Suma Datta, Undergraduate Studies (LAUNCH).

The Undergraduate Curriculum Committee recommends approval of the following:

1. The minutes of the October 2, 2015 meeting.
2. New Courses

AERO 411. Applications of Fracture Mechanics to Aerospace Structures. (3-0). Credit 3.

Foundations of linear elastic fracture mechanics of aerospace structure; calculation of stress intensity factors and energy release rates; crack growth under fatigue loading; ASTM standards for fracture testing; the role of fracture mechanics in the analysis and design of aerospace structures. Prerequisite: AERO 304 or equivalent with a grade of C or better.

AGCJ 413. Emerging Media in Agriculture. (3-0). Credit 3. Popular emerging media in agriculture to communicate, build and market a brand online; understanding the strategy behind the posts and other communications; create emerging media communications strategies for academic or business entities that may be implemented upon completion of course. Prerequisite: AGCJ 313.

ALEC 425 Principals of Program Evaluation. (3-0). Credit 3. Evaluation principles applied to educational programs in agriculture and life science; basic understanding of skills in program evaluation processes, concepts, and theories; develop expertise needed to design and conduct evaluations of youth and adults in extension, community, and school-based programs. Prerequisite: Junior or senior classification.

ANSC 470. Quality Assurance for the Food Industry. (3-0). Credit 3. Principles of food system process control including statistical process control (SPC) and the tools required to assure uniform communication and understanding of quality assurance systems. Prerequisite: Junior or senior classification. Cross-listed with FSTC 470.

ANTH 435. Medical Anthropology. (3-0). Credit 3. Overview of medical anthropology, a subfield in anthropology which examines the biological and cultural basis of health and disease in order to understand the influence of culture on the illness experience and treatment. Prerequisite: Junior or senior classification or approval of instructor.

ANTH 437. Ethnobotany. (3-0). Credit 3. Interdisciplinary study of the complex and dynamic relationships that exist between people and plants. Prerequisite: Junior or senior classification or approval of instructor.

BMEN 428. Microcontrollers and Communications in Medical Devices. (3-0). Credit 3. Principles of embedded system architecture and programming; fundamentals and theoretical foundations of wireless communication systems; hands-on experiences of how an embedded system could be used to solve problems in biomedical engineering; projects on wireless sensors and imaging for medical devices. Prerequisite: BMEN 211 or approval of instructor.

BMEN 448. Healthcare Technology in the Developing World. (1-6). Credit 3. Principles of operation for major types of medical equipment; physiology underlying the measurement; major functional (system) pieces for each instrument; typical problems/applications of each instrument. Prerequisites: MATH 152, PHYS 208, and approval of instructor.

CVEN 462. Engineering Hydrogeology. (3-0). Credit 3. Groundwater in the hydrologic cycle; aquifer properties; well hydraulics, testing, and design; groundwater quality; and groundwater management and sustainability. Prerequisites: CVEN 311; CVEN 301 or CVEN 339; junior or senior classification; or approval of instructor.

ENGR 333. Project Management for Engineers. (3-0). Credit 3. Basic project management for engineering; project development and economic justification; estimating; scheduling; network methods; critical path analysis; earned value management; project organizational structures; project risk assessment; resource allocation; ethics; characteristics of project managers. Prerequisite: Junior or senior classification in the Dwight Look College of Engineering or biological and agricultural engineering or approval of instructor.

ENTC 484 Professional Internship. (1-0). Credit 1. Directed internship in a private firm, government agency/laboratory, or non-governmental organization to provide work and/or research experience related to the student's program and career objectives. May be taken two times for credit. Prerequisites: Junior and senior classification and approval of internship agency and instructor.

FINC 444. Behavioral Finance. (3-0). Credit 3. Psychological and sociological aspects of financial decision making for individuals, institutions, and corporations; impacts of psychological factors on the financial markets, including anomalies in asset prices and stock market bubbles and crashes. Prerequisites: FINC 351 and FINC 361.

FINC 464. Commercial Credit Analysis. (3-0). Credit 3. Recognized techniques for assessing the ability and willingness of business firms to service debts as originally agreed; regulatory and ethical requirements for structuring and documenting commercial bank loans to protect interests of shareholders, depositors, and deposit insurers. Prerequisite: Admission to Mays Commercial Banking Certificate Program, or FINC 434 and approval of advisor.

FREN 481. Seminar in French and Francophone Studies. (3-0). Credit 3. In-depth exploration of topics in French and Francophone literature, culture, and/or film, involving individual student research projects. May be taken two times for credit as topics change. Prerequisite: Junior or senior classification or approval of instructor.

FSTC 470. Quality Assurance for the Food Industry. (3-0). Credit 3. Principles of food system process control including statistical process control (SPC) and the tools required to assure uniform communication and understanding of quality assurance systems. Prerequisite: Junior or senior classification. Cross-listed with ANSC 470.

GERM 104. Intensive Beginning German. (8-0). Credit 8. Accelerated elementary language study, with oral, listening, reading, and writing practice. Equivalent to GERM 101 and GERM 102.

GERM 204. Intensive Intermediate German. (6-0). Credit 6. Accelerated intermediate-level language study, with oral, listening, reading, and writing practice. Equivalent to GERM 201 and GERM 202. Prerequisite: GERM 102 or GERM 104.

GERM 440. Global Germany. (3-0). Credit 3. Impact of globalization on Germany and the globalization of German life and culture from postwar period to the present; analysis of theoretical, historical, fictional and/or cinematic works presenting relationship of modern Germany with world affairs. Course conducted in English. Prerequisite: Junior or senior classification or approval of instructor.

GERM 441. Representations of the Holocaust. (3-0). Credit 3. Analysis of artistic mediations of the Holocaust across diverse textual and visual media with particular focus on aesthetic, political, pedagogical, and ethical challenges. Course conducted in English. Prerequisite: Junior or senior classification or approval of instructor.

IDIS 433. Industrial Sales Force Development. (3-0). Credit 3. Techniques and processes for developing, maintaining and leading high performing industrial sales organizations; organizations planning and forecasting processes, processes and procedures for identifying and developing talented sales professionals who can operate within a sales process and provide solutions to customers while growing profitable accounts. Prerequisite: IDIS 330 with a grade of C or better.

IDIS 450. Analytics for Distribution Operation. (3-0). Credit 3. Fundamental concepts in data analytics in distribution operations; using data management tools to process transaction data into useful information; various statistical and analytical models to make strategic decision making; predictive analytics, simulation and risk analysis, linear optimization, and data mining. Prerequisites: IDIS 343 and IDIS 344 with a grade of "C" or better.

ISEN 210. Fundamentals of Industrial Engineering Design. (3-3). Credit 4. Engineering design for product development, problem definition and need identification, information gathering and concept generation, decision making and concept selection; industrial engineering concepts including design for manufacturing, assembly, sustainability and environment; economic decision making and cost evaluation; risk, reliability and safety; quality; robust design and optimization. Prerequisite: ENGR 112.

ISEN 230. Informatics for Industrial Engineers. (3-0). Credit 3. Structured programming concepts for implementing mathematical and statistical models in industrial engineering problems; emphasis on introductory production and service system problems and computer-based approaches to solve the problems; engineering applications of probability and statistics concepts. Prerequisite: CSCE 206 or CSCE 111 or CSCE 121 or equivalent. Concurrent enrollment in STAT 211.

ISEN 310. Uncertainty Modeling for Industrial Engineering. (3-0). Credit 3. Models and methods based on probability and statistics for industrial engineering applications; random variables, expectation, distribution fitting, reliability of systems, central limit theorem and interval estimates in the context of production and service systems. Prerequisites: ISEN 230 and STAT 211; junior or senior classification.

ISEN 320 Operations Research I. (3-0). Credit 3. Development and application of fundamental deterministic optimization models and solution methods; focus on quantitative modeling and formulation of linear, integer, and network flow problems; use of computer optimization software to model and solve real-life problems. Prerequisites: MATH 304; junior or senior classification.

ISEN 330. Human Systems Interaction. (3-0). Credit 3. Principles of human factors and ergonomics; emphasis on design to support human capabilities, limitations, and interaction tendencies in sociotechnical work systems; topics include human information processing, physiological and biomechanical functioning, and implications for design of the workplace and jobs; case studies in manufacturing, medicine, aerospace, ground transportation, and computer interaction. Prerequisites: MMET 181; junior classification.

ISEN 340. Operations Research II. (3-0). Credit 3. Probabilistic methods for industrial and service systems; stochastic processes used in industrial engineering, including Poisson processes and discrete and continuous-time Markov chains; applications to production operations, inventory control, revenue management, quality control, reliability, digital simulation and finance. Prerequisites: MATH 304 and ISEN 310; junior or senior classification.

ISEN 350. Quality Engineering. (2-3). Credit 3. Strategic approach to implementing quality, process and business improvement methods using data analysis tools; total quality management and six sigma approaches to define, measure, analyze, improve and control processes; principles of lean engineering; control charts; process capability analysis; basic metrology, applied statistics, lean principles and process capability. Prerequisites: ISEN 310 and ISEN 230; junior or senior classification.

ISEN 355. System Simulation. (2-3). Credit 3. Systems simulation structure, logic and methodologies; development of simulation models; data handling methods; analysis of simulation data; verification and validation; system simulation languages, models and analysis; applications to industrial situations. Prerequisites: ISEN 230 and ISEN 310; junior or senior classification.

ISEN 370. Production Systems Engineering. (3-0). Credit 3. Principles, models, and techniques for planning and analysis of production and distribution systems; application of linear, integer, and nonlinear optimization models and solution methods for aggregate planning, supply chain planning, push (MRP) and pull (JIT) material flow management, inventory control under deterministic and stochastic demands, operations scheduling, and production scheduling. Prerequisites: ISEN 230 and ISEN 320; junior or senior classification.

ISEN 405. Facilities Design and Material Handling. (3-0). Credit 3. Principles of facilities location, layout, and material handling systems and to practice designing facilities; modeling, design, and analysis techniques; methodologies in facilities location, layout, and material handling; integration of ergonomics analysis techniques and their implications on design, layout, safety and quality. Prerequisites: ISEN 210 and ISEN 320; junior or senior classification.

ISEN 408. Supply Chain and Logistics. (3-0). Credit 3. Principles, models and techniques for planning, analysis and design of supply chain systems; optimization principles, including linear and integer programming, applied to supply chain planning and operations; information technology, design models, databases, and strategic and tactical decision making. Prerequisites: ISEN 320, ISEN 340, and ISEN 370; junior or senior classification.

ISEN 410. Advanced Engineering Economy. (3-0). Credit 3. Principles of economic equivalence; borrowing, lending, and investing; establishing minimum attractive rate of return; replacement analysis; capital budgeting; uncertainty analysis; decision trees. Prerequisites: ISEN 210 or ISEN 302; junior or senior classification.

ISEN 413. Advanced Data Analytics for Industry. (3-0). Credit 3. Data mining; linear discriminant analysis (LDA), principal component analysis (PCA) and other methods; classification, clustering, and

mining, information extraction; dealing with uncertainty, Bayesian inference; neural models, regression and feature selection. Prerequisites: ISEN 310 and ISEN 350; junior or senior classification.

ISEN 434. Human Error and System Failures. (3-0). Credit 3. Human error from a sociotechnical systems perspective; role of error in complex system failures; human behavioral modes and system design factors; analytical methods for defining the roles and impact of errors in large-scale system accidents; real-world case studies. Prerequisites: ISEN 330; junior or senior classification.

ISEN 442. Organizational Systems. (3-0). Credit 3. Role of people and organizations in the design and development of complex engineered systems; providing engineers with the skills needed to effectively manage large-scale system development programs. Prerequisites: ISEN 330; junior or senior classification.

ISEN 453. Manufacturing Operations. (3-0). Credit 3. Analytical principles of manufacturing systems design, analysis and control; emphasis placed on stochastic analysis; role of variability and impact on cycle time; push versus pull production strategies including Kanban and constant WIP control; probability, queuing theory, Little's Law, heavy traffic approximations, and queuing networks. Prerequisites: ISEN 340; junior or senior classification.

ISEN 460. Capstone Senior Design. (1-6). Credit 3. Engineering design including identification of a problem; development, analysis and evaluation of alternative solutions; and recommendations for and, where possible, development of systems improvement tools; application of experience and training to provide a product or solution that helps company clients; balancing client needs with academic requirements. Prerequisite: ISEN 340, ISEN 350, ISEN 355 and ISEN 370; junior or senior classification.

ISYS 370. Introduction to Energy Industry. (3-0). Credit 3. History of the modern Oil & Gas Industry; ecosystem of companies driving the industry; operations involved in exploration, production, refining, trading, pipeline, and retail in bringing oil to market; accounting and economics of the industry; issues and solutions in supporting supply chain; discussion of technology innovations occurring in the industry. Prerequisite: Admission to upper division in Mays Business School. Cross-listed with SCMT 370.

JAPN 325. Japanese Language and Culture through Manga. (3-0). Credit 3. Examination of Japanese and Asian visual, linguistic, and cultural traditions, with emphasis on genre of Manga. Prerequisite: JAPN 202.

MEEN 440. Bio-inspired Engineering Design. (3-0). Credit 3. Expand design space available to engineering by developing and understanding of how nature solves problems; study of effective bio-inspired design and biomimetic applications to draw solutions from nature; enhance concept generation through the use of bio-inspired design; use current state of the art methods in bioinspired design; view nature's solutions to different problems from an engineering perspective. Prerequisite: MEEN 368, BMEN 361, or BAEN 375.

MMET 201. Manufacturing and Materials. (3-2). Credit 4. Survey of metallic and non-metallic materials; selection and applications of materials; introduction to traditional and non-traditional manufacturing processes, assembly processes, and metrology. Prerequisite: ENGR 111.

MODL 321. Culture and Civilization I. (3-0). Credit 3. Studies in national culture and civilization from classical antiquity through the nineteenth century. Conducted in the target language. Prerequisite: Junior or senior classification, or instructor approval.

MODL 322. Culture and Civilization II. (3-0). Credit 3. Studies in national culture and civilization from the late nineteenth century through the present. Conducted in the target language. Prerequisite: Junior or senior classification, or instructor approval.

OCNG 281. Seminar. (1-0). Credit 1. Basic background on the research being conducted in the Department of Oceanography through seminars given by Oceanography graduate student; basic writing skills for ocean science through instruction and assignments during the semester. Prerequisites: OCNG 251 or OCNG 401; OCNG 252; or approval of instructor.

OCNG 456. MATLAB Programming for Ocean Sciences. (2-2). Credit 3. Computation techniques for oceanographic data processing using MATLAB; focus on the analysis of oceanographic-related data sets and real-world oceanographic applications; analyze individual data sets. Prerequisite: Junior or senior classification or approval of the instructor.

OCNG 461. Advanced Oceanographic Data Analysis and Communication. (3-0). Credit 3. Project design and planning for oceanographers; oceanographic data organization and analysis; synthesis and interpretation of data analysis; technical report writing and presentation. Prerequisites: OCNG 281, OCNG 404, OCNG 410, and GEOS 470, or approval of the instructor.

OCNG 481. Seminar. (1-0). Credit 1. Analysis, review and critique of current research themes in oceanography based on reading assignments and seminar presentations. May be taken four times for credit. Prerequisite: Junior or senior classification.

POLS 233. Politics and Policy in the United States. (3-0). Credit 3. Survey of institutions of American government, mass political behavior, and policy fields of significant contemporary importance.

SCMT 370. Introduction to Energy Industry. (3-0). Credit 3. History of the modern Oil & Gas Industry; ecosystem of companies driving the industry; operations involved in exploration, production, refining, trading, pipeline, and retail in bringing oil to market; accounting and economics of the industry; issues and solutions in supporting supply chain; discussion of technology innovations occurring in the industry. Prerequisite: Admission to upper division in Mays Business School. Cross-listed with ISYS 370.

SCMT 381. Lean Business Tools and Techniques. (3-0). Credit 3. In-depth and hands-on look into specific Lean tools used to solve specific tactical problems; standard work strategies, time studies, waste simulation, PFEPs, productive maintenance, visual daily management systems, and Kaizen events. Prerequisite: Admission to upper-division in Mays Business School.

SOCI 208. Introduction to Aging and Society. (3-0). Credit 3. Introduction to a multidisciplinary approach to the social study of aging; separating facts from stereotypes about aging, examining basic sociological, psychological, and physiological factors affecting the aging process, and exploring institutions and careers related to aging.

SOCI 308. Community Issues in Aging. (3-0). Credit 3. Detailed exploration of social forces impacting the elderly and their families at the community level; the impact of demographic, cultural, organizational and social factors on a community's response to an increasingly aging population; and the application of this knowledge through volunteer collaboration with a community nonprofit organization serving the elderly. Prerequisite: Junior or senior classification or approval of instructor.

SOCI 311. Social Change. (3-0). Credit 3. Survey of major changes in American and Western society, the forces underlying change and tensions caused by social change. Prerequisite: Junior or senior classification or approval of instructor.

SOCI 338. Latino Immigration. (3-0). Credit 3. Theoretical and empirical examinations of the causes, processes, and impacts of Latin American immigration to the U.S.; Latino/a immigrant experience in the U.S.; effects of immigration on sending and receiving communities. Prerequisite: Junior or senior classification or approval of the instructor.

SOCI 408. Death and Dying. (3-0). Credit 3. Exploration of interdisciplinary social issues surrounding death and dying: the interactions among professionals, families, and dying individuals; the development and functioning of death norms and institutions (e.g., hospitals, funeral homes, hospice, capital punishment); the critical analysis of social/cultural inequalities affecting when and how we die. Prerequisite: Junior or senior classification or approval of instructor.

UGST 211. UScholar Personal Statement. Credit 0 to 1. Oral and written reflection on values, goals, and opportunities; preparation of personal statement appropriate for nationally competitive scholarship application. Must be taken on a satisfactory/unsatisfactory basis. Prerequisite: University Scholar classification.

UGST 311. UScholar Exploration Series. Credit 0 to 1. Selection from a variety of discussion topics designed to foster student-faculty interaction, intellectual and cultural enrichment, inter- and cross-disciplinary connections, and the development of interest and knowledge of issues outside of a student's degree area. May be taken six times for credit. Must be taken on a satisfactory/unsatisfactory basis. Prerequisites: Junior or senior classification or approval of instructor; admitted to University Scholar program.

UGST 405. Thesis Writing. Credit 0 to 1. Accessing information, searching scholarly literature, and oral or poster presentation of scholarly work and formal research thesis. Must be taken on a satisfactory/unsatisfactory basis. Prerequisites: Junior or senior classification; admitted to Undergraduate Research Scholars.

UGST 497. Capstone. Credit 0 to 6. Demonstrating mastery of discipline as applied to an original problem through an independent, mentored project; public presentation of work. May be taken two times for credit. Must be taken on a satisfactory/unsatisfactory basis. Prerequisites: Junior or senior classification; admitted to Undergraduate Service Scholars program.

VIBS 447. Neurophysiology of Music. (2-0). Credit 2. Exploration of the heritability and genetics of musical talent, the physiology and physics of hearing, and the neurophysiology of processing sound using primarily German and Austrian compositions. Prerequisite: Junior or senior classification.

3. Withdrawal of Courses

CVEN 333. Project Management for Engineers
ISEN 333. Project Management for Engineers.
MEEN 333. Project Management for Engineers.
PSYC 405. Psychology of Religion.

4. Change in Courses

AFST 204. Introduction to African-American Literature.

Prerequisite

From: ENGL 104.

To: None.

AFST 205. Introduction to Africana Literature.

Prerequisite

From: ENGL 104.

To: None.

AGSM 301. Systems Analysis in Agriculture.

Prerequisite

From: MATH 141 and MATH 142 or equivalent; junior or senior classification or approval of instructor.

To: MATH 141 and MATH 142 with a grade of C or better.

AGSM 315. Food Process Engineering Technology.

Prerequisite

From: FSTC 201; PHYS 201; junior or senior classification or approval of instructor.

To: PHYS 201 or PHYS 218; junior or senior classification or approval of instructor.

AGSM 360. Occupational Safety Management.

Prerequisite

From: None.

To: Junior or senior classification.

Lecture contact hours and lab contact hours

From: (3-0). Credit 3.

To: (2-2). Credit 3.

ARTS 303. Graphic Design I.

Prerequisite

From: ARTS 103, VIST 105, ENDS 105 or approval of instructor and undergraduate program coordinator.

To: ARTS 104, VIST 105, ENDS 105 or approval of instructor and undergraduate program coordinator.

ASIA 350. Asia During World War II.

Course title

From: Asia During World War II.

To: World War II in Asia and the Pacific.

Course description

From: The origins and development of Japanese imperialism; Japan's expansion into East and Southeast Asia; wartime societies; collaboration and resistance; effects of the war in the United States upon Japanese-Americans; the outcomes of the war; remembrance of the war.

To: Origins and development of Japanese imperialism; Japan's expansion into East and Southeast Asia and the Pacific; wartime societies; collaboration and resistance; effects of the war in the United States on Japanese-Americans; outcomes of the war; remembrance of the war.

BICH 107. Horizons in Biological Chemistry.

Course number

From: BICH 107.
To: BICH 101.

Course title

From: Horizons in Biological Chemistry.
To: Perspectives in Biochemistry and Genetics.

Lecture contact hours and semester credit hours

From: (2-0). Credit 2.
To: (1-0). Credit 1.

Course description, prerequisites, cross-listing

From: An introduction to biochemistry and its relationship to the biological, biophysical and chemical sciences. Prerequisite: Freshman or sophomore classification or approval of instructor.
To: Introduction to biochemistry and genetics and their relationship to the biological, biophysical and chemical sciences. Prerequisite: Biochemistry and genetics major or approval of instructor. Cross-listed with GENE 101.

BICH 414. Biochemical Techniques I.

Prerequisite

From: BICH 440; CHEM 316 and CHEM 318 or registration therein.
To: BICH 440.

BMEN 101. Introduction to Biomedical Engineering.

Prerequisite

From: Freshman or sophomore classification.
To: Admitted to major degree sequence.

BMEN 207. Computing for Biomedical Engineering.

Prerequisite

From: Admitted to major degree sequence; PHYS 208, CHEM 101/111, MATH 152, ENGR 112.
To: Admitted to major degree sequence; MATH 152, ENGR 112.

BMEN 211. Biomedical Applications of Circuits, Signals and Systems.

Prerequisite

From: Admitted to major degree sequence in biomedical engineering, BMEN 207, MATH 308 or concurrent enrollment, or approval of instructor.
To: Admitted to major degree sequence; PHYS 208 and MATH 308, or concurrent enrollment.

BMEN 253. Medical Device Design I.

Prerequisite

From: Admitted to major degree sequence in biomedical engineering; VTPP 434; or approval of instructor.
To: BMEN 207.

BMEN 305. Bioinstrumentation.

Prerequisite

From: Admitted to major degree sequence in biomedical engineering; BMEN 211, VTPP 434 and 435; junior or senior classification; or approval of instructor.
To: BMEN 211, BMEN 321 or concurrent enrollment.

BMEN 321. Biomedical Electronics.

Prerequisite

From: BMEN 211; VTPP 435; junior or senior classification; or approval of instructor.
To: BMEN 211; junior or senior classification.

BMEN 322. Biosignal Analysis.

Prerequisite

From: BMEN 321, VTPP 434 and VTPP 435; junior or senior classification.
To: BMEN 321.

BMEN 341. Biofluid Mechanics.

Prerequisite

From: Admitted to major degree sequence in biomedical engineering; VTPP 435; MATH 308; junior or senior classification; or approval of instructor.
To: Admitted to major degree sequence; junior or senior classification.

BMEN 343. Introduction to Biomaterials.

Prerequisite

From: Admitted to major degree sequence in biomedical engineering; VTPP 435; MATH 308; junior or senior classification; or approval of instructor.
To: MATH 308 and CHEM 227; junior or senior classification.

BMEN 344. Biological Responses to Medical Devices.

Prerequisite

From: Basic knowledge of biomaterials, cell biology, human anatomy/physiology and engineering principles (VTPP 435 or equivalent); BMEN 343 highly recommended.
To: BMEN 343. VTPP 435 or concurrent enrollment.

BMEN 401. Principles and Analysis of Biological Control Systems.

Prerequisite

From: BMEN 321; MATH 308; VTPP 434 and VTPP 435.
To: BMEN 321.

BMEN 404. FDA Good Laboratory and Clinical Practices.

Prerequisite

From: Admitted to major degree sequence and BMEN 430; junior or senior classification.
To: BMEN 253; junior or senior classification.

BMEN 406. Medical Device Path to Market.

Prerequisite

From: Admission into degree sequence of the major and junior or senior classification or approval of instructor.
To: BMEN 253; junior or senior classification, or approval of instructor.

BMEN 420. Medical Imaging.

Prerequisite

From: Admitted to major degree sequence in biomedical engineering; MATH 308; junior or senior classification; or approval of instructor.
To: BMEN 211; junior or senior classification.

BMEN 431. Thermodynamics of Biomolecular Systems.

Course description and prerequisites

From: Introduces equilibrium and non-equilibrium statistical mechanics and applies them to understand various biomolecular systems; including ensemble theory, reaction kinetics, nonlinear dynamics and stochastic processes; applied examples such as enzyme-ligand binding kinetics, conformational dynamic of proteins and nucleic acids, population dynamics, and noise in biological signals. Prerequisites: BMEN 240, PHYS 208 and MATH 308.

To: Biothermodynamics; quantitative framework for describing materials behavior and processes as they relate to the properties and interactions of microscopic constituents; application to bioengineering and biomedicine problems. Prerequisite: BMEN 361.

BMEN 432. Molecular and Cellular Biomechanics.

Prerequisite

From: BMEN 240, MATH 304; junior or senior classification.
To: BMEN 361.

BMEN 450. Case Studies.

Prerequisite

From: BMEN 361, BMEN 305 and BMEN 344; junior or senior classification; or approval of instructor.
To: Admitted to major degree sequence; junior or senior classification.

BMEN 451. Cell Mechanobiology.

Prerequisite

From: BMEN 282/CHEN 282 and admitted to major degree sequence in biomedical engineering.

To: BMEN 341.

BMEN 452. Mass and Energy Transfer in Biosystems.

Prerequisite

From: BMEN 341; MATH 308; VTPP 434 and VTPP 435.

To: BMEN 341; MATH 308.

BMEN 453. Analysis and Design Project I.

Lecture contact hours and lab contact hours

From: (2-0). Credit 2.

To: (0-6). Credit 2.

Prerequisite

From: BMEN 321, BMEN 322; BMEN 344; BMEN 253 and BMEN 353; senior classification or approval of instructor.

To: BMEN 321 and BMEN 353.

BMEN 454. Analysis and Design Project II.

Lecture contact hours and lab contact hours

From: (2-0). Credit 2.

To: (0-6). Credit 2.

Prerequisite

From: BMEN 321, BMEN 322, BMEN 344 and BMEN 453; senior classification; or approval of instructor.

To: BMEN 453.

BMEN 457. Orthopedic Biomechanics.

Prerequisite

From: Admitted to major degree sequence in biomedical engineering; junior or senior classification.

To: BMEN 361 or equivalent course approved by instructor.

BMEN 461. Cardiac Mechanics.

Prerequisite

From: BMEN 240, BMEN 341, and BMEN 463; approval of instructor.

To: BMEN 341 and BMEN 361.

BMEN 463. Tissue Mechanics and Finite Element Methods.

Prerequisite

From: BMEN 240 or equivalent; junior or senior classification.

To: BMEN 341 and BMEN 361.

BMEN 465. Biomechanics Experiential Learning Lab.

Prerequisite

From: Admitted to major degree sequence in biomedical engineering; junior or senior classification or approval of instructor.
To: BMEN 361.

BMEN 480. Biomedical Engineering of Tissues.

Prerequisite

From: Admitted to major degree sequence (upper level) in biomedical engineering.
To: BMEN 343.

BMEN 482. Polymeric Biomaterials.

Prerequisite

From: BMEN 342 or approval of instructor; junior or senior classification.
To: BMEN 343.

CHEM 289. Special Topics in...

Variable credit

From: Credit 1 to 4.
To: Credit 0 to 4.

CVEN 400. Design Problems in Civil Engineering.

Prerequisite

From: CVEN 303 and CVEN 345; CVEN 322 or CVEN 422; senior classification; or approval of instructor.
To: CVEN 303, CVEN 322, CVEN 345 and CVEN 399; senior classification; or approval of instructor.

CVEN 424. Civil Engineering Professional Practice.

Prerequisite

From: CVEN 322; senior classification in civil engineering or ocean engineering.
To: CVEN 322 and CVEN 399; senior classification in civil engineering.

CVEN 456. Highway Design.

Prerequisite

From: CVEN 307.
To: CVEN 307 and CVEN 399; senior classification; or approval of instructor.

CVEN 483. Analysis and Design of Structures.

Prerequisite

From: CVEN 365 or registration therein; CVEN 444 and CVEN 446.
To: CVEN 365 or concurrent enrollment; CVEN 399, CVEN 444 and CVEN 446; senior classification; or approval of instructor.

EHRD 372. Training and Development in HRD.

Prerequisite

From: Junior or senior classification and approval of instructor.

To: Grade of C or better in EHRD 203 and EHRD 210; junior or senior classification; or approval of instructor.

EHRD 374. Organizational Development.

Prerequisite

From: Junior or senior classification and approval of instructor.

To: Grade of C or better in EHRD 203 and EHRD 210; junior or senior classification; or approval of instructor.

EHRD 413. Conflict Management and Dialogue.

Prerequisite

From: Junior or senior classification or approval of instructor.

To: Grade of C or better in EHRD 203 and EHRD 210; junior or senior classification; or approval of instructor.

ENGL 352. Literature, World War II to Present.

Prerequisite

From: 3 credits of literature at 200-level or above.

To: Junior or senior classification.

ENGL 497. Independent Honors Studies.

Variable credit hours

From: Credit 1 to 3.

To: Credit 0 to 3.

ESET 151. Engineering Leadership.

Course number

From: ESET 151.

To: ESET 319.

Prerequisite

From: None.

To: Junior or senior classification.

ESET 211. Power Systems and Circuit Applications.

Lecture contact hours and semester credit hours

From: (3-3). Credit 4.

To: (2-3). Credit 3.

ESET 352. Electronics Testing I.

Prerequisite

From: ENTC 350 with a grade of C or better; completion of ENGL 104, MATH 151, MATH 152, CHEM 107 and CHEM 117, PHYS 218 with a grade of C or better; junior or senior classification in electronic systems engineering technology.

To: ENTC 329 and ESET 350 with a grade of C or better.

ESET 419. Engineering Technology Capstone I.

Prerequisite

From: Grade of C or better in ESET 369 and ESET 333; completion of ENGL 104, MATH 151, MATH 152, CHEM 107 and CHEM 117, and PHYS 218 with a grade of C or better; senior classification in electronic systems engineering technology.

To: ESET 319, ESET 333 and ESET 369 with a grade of C or better.

FINC 485. Directed Studies.

Variable credit hours

From: Credit 1 to 3.

To: Credit 0 to 6.

Prerequisite

From: Finance major and senior classification; approval of department head.

To: Approval of department head; FINC 351 and FINC 361; ACCT 328 or concurrent enrollment.

FREN 300. Composition.

Course title

From: Composition.

To: Written Communication in the French-Speaking World.

Course description

From: Development of writing skills in French; emphasis on grammatical constructions; structural analysis of representative texts and their imitation; expression of hypotheses; descriptive and explanatory writing; required for modern languages majors in French; conducted in French.

To: Strategies for effective communication in the written language; active production of a variety of narrative, expository, analytical, persuasive and epistolary texts with special attention to language appropriate to various social, professional and cultural contexts both in French and in the Francophone world; conducted in French.

FREN 301. French Culture and Civilization.

Course title

From: French Culture and Civilization.

To: French Society and Culture in Evolution.

Course description

- From: Cultural background of French language and literature; salient aspects of the geography and history of France; characteristic elements of French culture; illustration of major stylistic periods in literature and the fine arts; conducted in French.
- To: Events, figures, monuments, laws and cultural productions, texts and events participating in the evolution of French institutions, religion, socio-economic structures, marriage, sexuality and identities from the Gallo-Roman period through May 1968; conducted in French.

FREN 311. Advanced Oral Expression.

Course title

- From: Advanced Oral Expression.
- To: Oral Communication in the French-Speaking World.

Course description

- From: Strategies for effective communication in spoken French with special attention to language appropriate to various social contexts; analysis of press articles, television and radio programs; oral presentations; conducted in French.
- To: Strategies for effective communication in the spoken language; case studies in economic, political, cultural, social and environmental issues as presented through the press and audio-visual media of France and the Francophone world; conducted in French.

FREN 321. Survey of French Literature I.

Course title

- From: Survey of French Literature I.
- To: French Literature I.

Course description

- From: Masterpieces of French poetry, prose and theater from the Middle Ages through the seventeenth century, with special attention to the place of each work's significance to the evolution of French society and culture; conducted in French.
- To: Representative works of French poetry, theater, essays and novels in the historical, cultural and political context of French society from the Middle Ages through the 18th century; conducted in French.

FREN 322. Survey of French Literature II.

Course title

- From: Survey of French Literature II.
- To: French Literature II.

Course description

- From: Masterpieces of French poetry, prose and theater from the Enlightenment through the twentieth century, with special attention to the place of each work's significance to the evolution of French society and culture; conducted in French.
- To: Representative works of French and Francophone novels, plays, poetry and essays reflecting the societies and cultural experience of French-speaking people in the 19th, 20th and 21st centuries; conducted in French..

FREN 336. Contemporary France.

Course title

From: Contemporary France.

To: Politics, Culture and Society in Contemporary France.

Course description

From: Cultural, economic and political aspects of present-day French society, including educational institutions, modern families, gender roles, entertainment and leisure, social classes and lifestyles, French and American cultural differences, and treatment of these issues in French media; conducted in French.

To: Salient aspects of present-day French society and culture, including government, demographics, immigration, education, families, gender roles, entertainment and leisure, social classes and cross-cultural tensions; conducted in French.

FREN 475. The Francophone World.

Course number

From: FREN 475.

To: FREN 375.

Course description

From: The peoples, cultures and societies of French-speaking communities outside of France, with special attention to their colonial origins and current issues of politics, identities and migrations as represented in works of film and literature.

To: The peoples, cultures and societies of French-speaking communities outside of France, with special attention to their colonial origins and current issues of politics, identities and migrations as represented in the press and media as well as in works of film and literature; conducted in French.

FSTC 315. Food Process Engineering Technology.

Prerequisite

From: FSTC 201; PHYS 201; junior or senior classification or approval of instructor approval.

To: PHYS 201 or PHYS 218; junior or senior classification or approval of instructor.

GENE 105. Perspectives in Genetics: Past, Present and Future.

Course number

From: GENE 105.

To: GENE 101.

Course title

From: Perspectives in Genetics: Past, Present and Future.

To: Perspectives in Biochemistry and Genetics.

Lecture contact hours and semester credit hours

From: (2-0). Credit 2.

To: (1-0). Credit 1.

Course description, prerequisites, cross-listing

From: Impact of genetics on science and society: historical and continuing development of genetics and its contributions to agricultural, biological, medical, physical and social studies. Prerequisite: Freshman or sophomore classification or approval of instructor.

To: Introduction to biochemistry and genetics and their relationship to the biological, biophysical and chemical sciences. Prerequisite: Biochemistry and genetics major or approval of instructor. Cross-listed with BICH 101.

HIST 234. European Military History, 1630-1900.

Course title

From: European Military History, 1630-1900.

To: European Military History.

Course description

From: European military history from Gustavus Adolphus to the Boer War including especially societal involvement as well as roles of classic commanders.

To: Includes societal involvement, democratization of war, technology, strategy, military thought and campaigns.

HIST 350. Asia During World War II.

Course title

From: Asia During World War II.

To: World War II in Asia and the Pacific.

Course description

From: The origins and development of Japanese imperialism; Japan's expansion into East and Southeast Asia; wartime societies; collaboration and resistance; effects of the war in the United States upon Japanese-Americans; the outcomes of the war; remembrance of the war.

To: Origins and development of Japanese imperialism; Japan's expansion into East and Southeast Asia and the Pacific; wartime societies; collaboration and resistance; effects of the war in the United States on Japanese-Americans; outcomes of the war; remembrance of the war.

HIST 353. Modern South Asia.

Course description

From: Survey of the modern nation states of South Asia, including India, Pakistan, Bangladesh, Afghanistan, Nepal, Ceylon, Bhutan, and Burma, ca., 1600 to the present; major political events; economic, social, and cultural developments.

To: Evolution of cultures, politics and societies in Indian sub-continent from c.1500 to present; rise and demise of empires (especially Mughal and British); anti-colonialism and emergence of nation states; social and cultural struggles and debates.

HIST 365. History of Religion in America to 1860.

Course description

From: Religion in America from European origins through New England Puritanism, U. S. Constitutional issues, immigration, revivalism and the Civil War; relationship between dissenters, utopians and visionaries versus mainstream counterparts.

To: Religion in North America from colonial beginnings to eve of Civil War; relations between European Christianity, Native Americans and African Americans; religious pluralism, reform movements, social and political change.

HIST 416. Texas Since 1845.

Course title

From: Texas Since 1845.

To: Texas as Border Region.

Course description and prerequisites

From: History of Texas since annexation; social, cultural, economic and political developments and the place of Texas in national affairs.

To: History of Texas since annexation; slavery and its aftermath; border cultures and identities; race and ethnicity; modernization and its discontents. Prerequisite: Junior or senior classification or approval of instructor.

HIST 438. Nineteenth Century England.

Course title

From: Nineteenth Century England.

To: Nineteenth Century Britain.

Course description and prerequisites

From: Political, social, economic and intellectual history of England from 1815 to 1914.

To: Political, social, economic, cultural, intellectual and military history of Great Britain from 1815 to 1914. Prerequisite: Junior or senior classification or approval of instructor.

HIST 439. Twentieth Century England.

Course title

From: Twentieth Century England.

To: Twentieth Century Britain.

Course description and prerequisites

From: Constitutional, political, economic, military and social history of England since 1910.

To: Constitutional, political, economic, military, social and cultural history of Great Britain since 1900. Prerequisite: Junior or senior classification or approval of instructor.

HIST 450. The Old South.

Course title

From: The Old South.

To: Southern Identities and Cultures through Reconstruction.

Course description and prerequisites

From: History of antebellum South; physical bases of Southern regionalism; Southern alignments on national issues; slavery-plantation economy and society of Old South; secession and formation of Confederacy.

To: Focus on parts of North America where slavery dominated the economy, politics and demographics; experiences of native, African and European-descended peoples in such regions from the colonial period to the end of slavery; debates about geographical and cultural roots of regional identities. Prerequisite: Junior or senior classification or approval of instructor.

HIST 451. The New South, 1876 to the Present.

Course title

From: The New South, 1876 to the Present.

To: Southern Identities and Cultures Since Reconstruction.

Course description and prerequisites

From: Political, economic, social and intellectual developments in the South since Reconstruction.

To: Focus on the aftermath of slavery and defeat in those parts of North America where slavery dominated the economy, politics and demographics; transformations in race, culture and politics in such regions and emergence of new identities since Reconstruction; debates over the geographic and cultural roots of the American South. Junior or senior classification or approval of instructor.

HIST 462. American Foreign Relations.

Course title

From: American Foreign Relations.

To: American Foreign Relations to 1913.

Prerequisites

From: None.

To: Junior or senior classification or approval of instructor.

HIST 463. American Foreign Relations.

Course title

From: American Foreign Relations.

To: American Foreign Relations Since 1913.

Prerequisites

From: None.

To: Junior or senior classification or approval of instructor.

HIST 477. Women in Modern European History.

Course title

From: Women in Modern European History.

To: Women and Gender in Modern European History.

LAND 310. Landscape Architecture.

Course number

From: LAND 310.

To: LAND 301.

Catalog course title

From: Landscape Architecture.
To: Landscape Architecture Theory.

LAND 329. Landscape Construction I.

Course number

From: LAND 329.
To: LAND 231.

LAND 331. Landscape Construction III.

Course number

From: LAND 331.
To: LAND 321.

MATH 167. For All Practical Purposes.

Course title

From: For All Practical Purposes.
To: Explorations in Mathematics.

Course description

From: Application of mathematics to real world situations using quantitative methods; includes urban services and elements of management science (optimal routes, planning and scheduling), elements of statistics (sampling/polling methods, analyzing data to make decisions), codes used by stores, credit cards, internet security, cryptography.

To: Application of mathematics to topics of contemporary societal importance using quantitative methods; may include elements of management science (optimal routes, planning and scheduling), statistics (sampling/polling methods, analyzing data to make decisions), cryptography (codes used by stores, credit cards, internet security), fairness (apportionment, voting) patterns (symmetry, tessellations, fractals), world health.

MATH 423. Linear Algebra II.

Prerequisite

From: MATH 304 or MATH 323, or approval of instructor.
To: MATH 220 or CSCE 222; MATH 304 or MATH 323, or approval of instructor.

MATH 425. The Mathematics of Contingent Claims.

Prerequisite

From: MATH 172 or equivalent; MATH 308 or equivalent; basic probability.
To: MATH 308; MATH 411, STAT 211 or STAT 414.

MMET 275. Mechanics for Technologists.

Lecture contact hours and semester credit hours

From: (4-0). Credit 4.
To: (3-0). Credit 3.

MUSC 311. Music in Early Western Culture.

Prerequisite

From: MUSC 202, MUSC 205, or approval of instructor.

To: MUSC 205 or approval of instructor.

MUSC 312. Music in Modern Western Culture.

Prerequisite

From: MUSC 202, MUSC 205, or approval of instructor.

To: MUSC 205 or approval of instructor.

PHLT 302. Foundations of Public Health.

Prerequisite

From: Public health major; junior or senior classification; or approval of instructor.

To: Public health major or minor, junior or senior classification, or approval of instructor.

PHLT 303. Social Context of Population Health.

Prerequisite

From: Public health major; junior or senior classification; or approval of instructor.

To: Public health major or minor, junior or senior classification, or approval of instructor.

PHLT 305. Epidemiology in Public Health.

Prerequisite

From: Public health major; junior or senior classification; or approval of instructor.

To: Public health major or minor, junior or senior classification, or approval of instructor.

PHLT 330. The Environment and Public Health.

Prerequisite

From: Public health major; junior or senior classification; or approval of instructor.

To: Public health major or minor, junior or senior classification, or approval of instructor.

PHLT 445. Population Health Culminating Experience.

Course title

From: Population Health Culminating Experience.

To: Applications of Public Health.

POLS 300. Foundations of Political Science.

Course number

From: POLS 300.

To: POLS 200.

Course description and prerequisite

From: Survey of the scholarly discipline of political science, the subfields of the discipline, the major research questions and the modes of scholarship in the latter subfields, and the character of the discipline as a profession. Prerequisites: POLS 206, POLS 207, POLS 209; junior classification.

To: Survey of the scholarly discipline of political science and its theoretical foundations, principal subfields, major research questions and modes of scholarship.

PSYC 484. Field Experiences.

Variable credit hours

From: Credit 0 to 3.

To: Credit 0 to 6.

Course description

From: Participation in an approved mental health, mental retardation, school, industrial or experimental setting; field experiences supervised by an appropriate professor within an area of student interest; course requirements vary with the setting, the supervising professor and the needs of the individual student.

To: Participation in an approved mental health, mental retardation, school, industrial or other approved setting; field experiences supervised by an appropriate professor within an area of student interest; course requirements vary with the setting, the supervising professor and the needs of the individual student. May be repeated for credit.

RELS 365. History of Religion in America to 1860.

Course description

From: Religion in America from the Civil War; relationship of religion and science, ethnic assimilation, emergence of fundamentalism, mass evangelism, cults and criticisms of contemporary culture; examination of social and racial problems by the major religious traditions.

To: Religion in North America from colonial beginnings to eve of Civil War; relations between European Christianity, Native Americans and African Americans; religious pluralism, reform movements, social and political change.

WGST 477. Women in Modern European History.

Course title

From: Women in Modern European History.

To: Women and Gender in Modern European History.

5. Change in Curriculum

College of Agriculture and Life Sciences

Department of Biochemistry and Biophysics

BS in Biochemistry

BS in Genetics

Mays Business School

Department of Finance

Certificate in Commercial Banking

College of Education and Human Development

Department of Health and Kinesiology

BS in Sport Management – Internship Track

BS in Sport Management – Non-Internship Track

Dwight Look College of Engineering

Department of Civil Engineering

BS in Civil Engineering - Coastal & Ocean Engineering Track

BS in Civil Engineering - Construction Engineering & Management Track

BS in Civil Engineering - Environmental Engineering Track

BS in Civil Engineering - General Civil Engineering Track

BS in Civil Engineering - Geotechnical Engineering Track

BS in Civil Engineering - Structural Engineering Track

BS in Civil Engineering - Transportation Engineering Track

BS in Civil Engineering - Water Resources Engineering Track

Department of Engineering Technology and Industrial Distribution

BS in Electronic Systems Engineering Technology

Department of Industrial and Systems Engineering

BS in Industrial Engineering

College of Liberal Arts

Department of English

BA in English

Department of International Studies

BA in Modern Languages - French Track

BA in Modern Languages - German Track

Minor in German

Department of Philosophy

BA in Philosophy

Department of Political Science

BA in Political Science

BA in Political Science and Master in Public Service Administration - 5-year degree

BS in Political Science

BS in Political Science and Master in Public Service Administration - 5-year degree

Department of Psychology
BA in Psychology

BS in Psychology

College of Science

Department of Mathematics
BS in Applied Mathematical Sciences

BS in Applied Mathematical Sciences - Actuarial Science Emphasis

BS in Applied Mathematical Sciences - Biological Science Emphasis

BS in Applied Mathematical Sciences - Computational Science Emphasis

BS in Applied Mathematical Sciences - Economics Emphasis

BS in Applied Mathematical Sciences - Statistics Emphasis

BS in Applied Mathematical Sciences - 5-year degree program

BA in Mathematics

BA in Mathematics - 5-year degree program

BS in Mathematics

BS in Mathematics - 5-year degree program

BS in University Studies - Mathematics for Business Concentration

BS in University Studies - Mathematics for Pre-Professionals Concentration

6. Texas A&M University at Galveston

a. New Courses

MARA 475. Business Leadership. (3-0). Credit 3. Focus on theory and practice of leadership; familiarize with components, theory and models of leadership; compare/contrast styles; review leadership/followership relationship as a collaborative activity resulting in achieved goals; analyze cultural and global components and ethical issues associated with leadership. Prerequisite: Junior or senior classification or approval of instructor.

MARB 406. Life in Extreme Environments. (3-0). Credit 3. Key metabolic and physiological innovations of extremophile organisms; topics include the molecular biology, biochemistry and physiology of organisms living in extreme environments. Prerequisites: MARB 315; CHEM 228; junior or senior classification or approval of instructor.

MARS 252. Introductory Marine Science Laboratory. (0-3). Credit 1. Overview of the global ocean environment and the interrelated sub-disciplines; the important of the ocean for the earth's ecosystems and human impact on the ocean; field work and boat trip, water and benthic sediment collection and analysis; navigation chart work. Prerequisite: OCNG 251 or concurrent enrollment.

MARS 365. Integrated Marine Sciences Laboratory. (1-6). Credit 3. Integrated lectures, field and laboratory exercises for data collection and analysis of physical, chemical, biological and geological measurements in ocean, coastal and estuarine environments. Prerequisites: MATH 142 or 152, PHYS 202 or PHYS 208, OCNG 251, MARS 252, CHEM 102 and CHEM 112, BIOL 112 and GEOL 101 and GEOL 102, junior or senior classification or approval of instructor.

MARS 461. Capstone Undergraduate Research Experience II. (1-0). Credit 1. Research and scientific communications; development of a scientific abstract, poster presentation, oral presentation or written scientific paper. Prerequisites: MARS 491 or concurrent enrollment, senior classification or approval of instructor.

MAST 336. Maritime Foreign Policy. (3-0). Credit 3. Strategies used by governments to guide international actions; objectives of state leaders in decision making; sources, processes, objectives and outcomes of maritime policy choices. Prerequisite: Junior or senior classification or approval of instructor.

MAST 493. Maritime Studies Travel Experience. Credit 1 to 6. Combination of classroom and travel emphasizing cultural, archaeological, political and historical aspects of maritime humanities related topics. May be taken two times for credit. Prerequisite: Junior or senior classification or approval of instructor.

b. Change in Courses

MARB 437. Pathology of Marine Animals.

Lab contact hours and semester credit hours

From: (3-3). Credit 4.

To: (3-0). Credit 3.

Course description and prerequisites

From: An introduction to the structural and functional changes in cells, tissues and organ systems of marine invertebrates and vertebrates as they relate to disease and/or injury. Mechanisms of disease and identification of lesions in common diseases and human-induced injuries will be included. Laboratory will consist of gross and microscopic aspects of pathology in both invertebrate and vertebrate animals. Prerequisites: MARB 315, 435, MICR 351. Junior or senior classification or approval of instructor.

To: Examination of changes or loss of physiological function as related to common diseases (viral, bacterial, parasitic) or injury; mechanisms of disease in cells, tissues and organ systems of marine vertebrates; emphasis on marine mammals; fishes and marine reptiles/birds; clinical manifestations, diagnostics and treatments. Prerequisites: MARB 315; junior or senior classification or approval of instructor.

MARS 101. Introduction to Marine Sciences.

Course title

From: Introduction to Marine Sciences.

To: Marine Science Matters.

MARS 303. Introduction to Computing and Data Display.

Course title

From: Introduction to Computing and Data Display.
To: Computing and Data Display.

Course description

From: The purpose of this course is to introduce the student to the elements of computer programming and data display primarily through the MATLAB computing environment. Students will also be exposed to the FORTRAN programming language and the UNIX operating system.
To: Elements of programming and data display primarily through the MATLAB computing environment; includes an introduction to statistics and hypothesis testing with MATLAB.

MARS 410. Introduction to Physical Oceanography.

Course title

From: Introduction to Physical Oceanography.
To: Physical Oceanography.

Course description and prerequisites

From: Introduction to elements of the physics of the ocean; descriptive aspects and theoretical explanations of circulation, characteristic structure, and waves.
Prerequisites: MATH 251, PHYS 208. Junior or senior classification or approval of instructor.
To: Elements of the physics of the ocean; descriptive aspects and theoretical explanations of circulation, characteristic structure and waves. Prerequisites: OCNG 251, MARS 252, MATH 152, PHYS 208, junior or senior classification or approval of instructor.

MARS 430. Geological Oceanography-Plate Tectonics.

Prerequisites

From: GEOL 104. Junior or senior classification or approval of instructor.
To: GEOL 101, OCNG 251, junior or senior classification or approval of instructor.

MARS 431. Geological Oceanography – Earth’s Climate.

Prerequisites

From: GEOL 104. Junior or senior classification or approval of instructor.
To: GEOL 101, OCNG 251, junior or senior classification or approval of instructor.

MARS 440. Introduction to Chemical Oceanography.

Course title

From: Introduction to Chemical Oceanography.
To: Chemical Oceanography.

Course description and prerequisites

- From: Introduction to chemical processes in the marine environment. Composition of sea salt, chemical specification of dissolved material in the ocean. Biogeochemistry of oxygen, major elements, nutrient elements, and some trace metals in the surface and deep ocean. Formation, chemical composition, and alterations of detrital material and marine sediments. Simple models which relate ocean chemistry to the circulation of identifiable masses of water. Radio isotopes and stable isotopes in chemical oceanography. Prerequisites: CHEM 102. Junior or senior classification or approval of instructor.
- To: Composition of sea salt and dissolved material in the ocean; biogeochemistry and measurements of oxygen, nutrient and other major elements, trace metals and radioisotopes; formation, composition and alterations of detrital material and marine sediments and other chemical processes; simple models relating ocean chemistry to the circulation of masses of water. Prerequisites: CHEM 102, OCNG 251, junior or senior classification or approval of instructor.

MARS 460. Modern Oceanographic Method.

Course title

- From: Modern Oceanographic Method.
To: Capstone Undergraduate Research Experience I.

Lecture contact hours, lab contact hours and semester credit hours

- From: (3-6). Credit 5.
To: (1-0). Credit 1.

Course description and prerequisites

- From: This course will provide students with hands-on experience with modern oceanographic observational tools and data analysis techniques. Focus is on the four major oceanographic disciplines, i.e. geology, chemistry, physics and biology. Students will receive the necessary theoretical background, collect and analyze their own data and learn how to prepare scientific reports summarizing their work. Prerequisite: Junior or senior classification or approval of instructor.
- To: Methodology for research outlines, organization and strategies; research ethics, writing and presentation of results. MARS 491 or concurrent enrollment, senior classification or approval of instructor.

MART 202. Naval Architecture II.

Lecture contact hours and lab contact hours

- From: (3-0). Credit 3.
To: (2-2). Credit 3.

MART 350. Commercial Cruise Internship.

Grade mode

- From: Grade
To: Must be taken on a satisfactory/unsatisfactory basis.

MAST 352. Maritime Craftsmanship.

Course title

From: Maritime Craftsmanship.

To: Crafts of the Maritime World.

c. Change in Curriculum

Texas A&M University at Galveston

Department of Marine Biology

BS in Marine Fisheries

Department of Marine Sciences

BS in Marine Sciences

BS in Marine Sciences - License Option

BS in Ocean and Coastal Resources

BS in Ocean and Coastal Resources and Master in Marine Resources Management (3+2)

Department of Maritime Administration

BS in Maritime Administration

BS in Maritime Administration and Master of Maritime Administration and Logistics (3+2)

d. Special Consideration

Texas A&M University at Galveston

Department of Liberal Studies

University Studies Degree

Area of Concentration in Maritime Public Policy and Communication

Request for a new program

7. Special Consideration

Dwight Look College of Engineering

Certificate in Engineering Project Management

Request to discontinue certificate

College of Liberal Arts

University Studies Degree

Area of Concentration - Religious Thought, Practices and Cultures

Request for a new program

Department of Philosophy and Humanities

University Studies Degree

Area of Concentration - Society, Ethics and Law

Request for a new program

Certificate in Philosophy Pre-Law
Request for a new certificate program

8. Tabled Items

New Courses

- PHLT 484 – prerequisites should include junior/senior status; hours on form don't match syllabus
- ATTR 201 - A) What grade is assigned if a student completes less than 40 hours of the field experience? B) under field experience syllabus states student must have all 45 hours of field experience to receive course credit; however, under evaluation procedures, syllabus states only 40/45 hours required for course grade; C) syllabus page with course schedule identifies the course as KINE 201 instead of ATTR 201; Location of Disability Services has changed. Since this is a field based course shouldn't part of the grade be based on performance in the field based setting?
- ATTR 202 - A) What grade is assigned if a student completes less than 40 hours of the field experience? B) under field experience syllabus states student must have all 45 hours of field experience to receive course credit; however, under evaluation procedures, syllabus states only 40/45 hours required for course grade; C) syllabus page with course schedule identifies the course as KINE 202 instead of ATTR 202; Location of Disability Services has changed. Since this is a field based course shouldn't part of the grade be based on performance in the field based setting?
- ATTR 301 - A) What grade is assigned if a student completes less than 40 hours of the field experience? B) under field experience syllabus states student must have all 45 hours of field experience to receive course credit; however, under evaluation procedures, syllabus states only 40/45 hours required for course grade; C) syllabus page with course schedule identifies the course as KINE 202 instead of ATTR 202; Location of Disability Services has changed. Since this is a field based course shouldn't part of the grade be based on performance in the field based setting?
- ATTR 302 - A) What grade is assigned if a student completes less than 40 hours of the field experience? B) under field experience syllabus states student must have all 45 hours of field experience to receive course credit; however, under evaluation procedures, syllabus states only 40/45 hours required for course grade; C) syllabus page with course schedule identifies the course as KINE 202 instead of ATTR 202; Location of Disability Services has changed. Since this is a field based course shouldn't part of the grade be based on performance in the field based setting?
- CVEN 399 – missing college signatures
- ENGR 380 - Student cannot determine what it would take to pass the course from the syllabus; grading standards?; Location of Disability Services has changed
- SPMT 481 - No learning outcomes, no attendance policy, no grading policy - is the sample syllabus the syllabus being submitted for course approval?; #6 is left unchecked. Location of Disability Services has changed. Location of Disability Services has changed.

Change in Courses

- CHEN 204 - What does "consideration given" mean in the case of an excused absence for the quizzes? Old Honor Code URL; old ADA, old Honor Code; Location of Disability Services has changed.
- SPMT 482 – Missing brief statement.

Change in Curricula

College of Education and Human Development
Department of Health and Kinesiology
Minor in Sport Management

Tabled in October

College of Geosciences
Environmental Programs

Department of Oceanography
BS in Environmental Geosciences and MS in Oceanography – 3+2

Department of Geology and Geophysics
Department of Oceanography
BA in Geology and MS in Oceanography – 3+2
BS in Geology and MS in Oceanography – 3+2

Department of Atmospheric Sciences
Department of Oceanography
BS in Meteorology and MS in Oceanography – 3+2

Special Consideration

Dwight Look College of Engineering
Minor in Engineering Project Management – new minor

College of Education and Human Development
Department of Health and Kinesiology
BS in KINE and MS in ATTR 3+2 – new program

9. Other Business

S.Williams gave a brief update on distance education programs, the area of responsibility for maintaining the official DE records, and updates requested to the ITS website. Also, introduced the Curricular Services team.