I. Approved requests for graduate course changes as follows:

**BMEN 668. Biothermomechanics.** (3-0). Credit 3. Application of continuum thermomechanics to quantify soft tissue behavior in response to combined thermal and mechanical loads including thermoelasticity and thermal damage. Prerequisite(s) BMEN 240, 341, and graduate classification.

**COML 603. Introduction to Comparative Literature.** (3-0). Credit 3. Introduction to the discipline of Comparative Literature and Culture by examples of specific area studies or by an overview of the field; introduction to the pedagogical practices on teaching Comparative Literature and Culture. Prerequisite(s) graduate certification.

**COML 645. Studies in Comparative Literature.** (3-0). Credit 3. Rotating topics in identified areas of Comparative Literature and Culture. Team-taught. The course may be repeated for credit. Prerequisite(s) COML 603.

**COML 685. Directed Studies.** (3-0). Credit 3. Research to supplement students knowledge of Comparative Literature and Culture in areas not studied in other courses; research papers; study of pedagogical issues in the field. Prerequisite(s) graduate classification and approval of program coordinator.

**COML 689. Special Topics in Comparative Literature and Culture.** (4-0). Credit 4. Selected topics in an identified area of Comparative Literature and Culture. May be repeated for credit. Prerequisite(s) graduate classification.

**COML 691. Research.** (6-0). Credit 6. Research for thesis. Prerequisite(s) graduate classification.

**COML 697. METHODOLOGY OF Teaching English and Foreign Language and Literature.** (3-0). Credits 3. Theory of teaching of English and foreign language and literature; supervised teaching; evaluation of current research and its relationship to current practice. Prerequisite(s) approval of instructor.

**CPSC 644. Cortical Networks.** (3-0). Credit 3. The architecture of the mammalian cerebral cortex; its modular organization and its network for distributed and parallel processing; cortical networks in perception and memory; neuronal microstructure and dynamical simulation of cortical networks; the cortical network as a proven paradigm for the design of cognitive machines. Prerequisite(s) CPSC 420 or CPSC 625 and 636 and graduate classification.

**ELEN 650. High Frequency GaAs/SiGe Analog IC Design.** (3-0). Credit 4. High frequency integrated circuit design using non-conventional technologies such as GaAs and SiGe, with the emphasis on wireless and broadband communication circuits. Device operation, basic building blocks and typical applications. Prerequisite(s) ELEN 474 or approval of instructor.

**ENGR 685. Directed Studies.** (4-0). Credit 4. Design or research problems executed either individually or as a team. Prerequisite(s) graduate classification; approval of graduate advisor.

**FTSC 677. Instrumental Methods in Food Analysis.** (2-6). Credit 4. Technique of chemistry, biochemistry and molecular biology used to analyze food products, operational principles of current instrumentation; “hands-on” experience with a variety of sample preparation techniques and modern laboratory instruments. Prerequisite(s) CHEM 316/318 or equivalent.
GEOG 651. Remote Sensing for Geographical Analysis. (3-0). Credit 3. Provides and introduction to remote sensing fundamentals. Discussion of past, present and planned earth observing sensors as well as technical issues involved in the collection, processing and interpretation of remote sensing images with emphasis on application to geographic problems, including geomorphology, hydrology and coastal oceanography. Prerequisite(s) graduate classification.

IDIS 655. Global Distribution. (3-0). Credit 3. Issues in global distribution on a small to large scale; emphasis on competitive global business strategies, cultural and exchange issues, distribution practices of other countries, global distribution networks, and transportation issues across the globe; an optional one week international trip to solidify students’ foundation in international distribution concepts and strategies. Prerequisite(s) admission to the MID Program.

HISP 600. Introduction to Hispanic Studies. (3-0). Credit 3. Examination for an interdisciplinary perspective of the cultural history of the Hispanic world, with particular emphasis on what the different disciplinary approaches reveal about literature, language, historical development and socioeconomic issues. Prerequisite(s) graduate classification.

HISP 606. Spanish of the Southwest. (3-0). Credit 3. Descriptive analysis of written varieties of southwest Spanish from Texas, New Mexico, and Arizona. Structure and variation of (a) the sound system, (b) grammatical patterns, and (c) the lexicon, instruction to sociolinguistic issues relevant to the southwest language studies. Prerequisite(s) HISP 602 or approval of instructor.

HISP 614. Hispanic Dialectology. (3-0). Credit 3. Topics include varieties of Spanish spoken throughout the Americas. Spanish speaking regions covered include South America, the Caribbean, Center America and North America, including the southwestern United States. The course covers historical background, structural linguistics, and sociolinguistic issues (social and stylistic variation.) Prerequisite(s) graduate classification.

HISP 618. Hispanic Folklore and Popular Culture. (3-0). Credit 3. An examination of popular literature and other cultural forms in the Hispanic world. Students will learn to appreciate, evaluate, and compare written and oral traditional formats, and acquire methods of analyzing language and cultural artifacts that reflect recent research trends. Prerequisite(s) graduate classification.

HISP 620. Studies in Critical Theory. (3-0). Credit 3. Examination of the development of theories of literary criticism and their application to the study of literary texts. Prerequisite(s) graduate classification.


HISP 630. Studies in Latin American Literature. (3-0). Credit 3. Possible topics include colonial literature, the chronicles, Romanticism, Modernism, contemporary trends in the Latin American novel, the novel of the Mexican Revolution, Ruben Dario, contemporary Argentine fiction, the literature of revolution in Latin America, Afro-Hispanic literature, Hispanic Caribbean literature. Prerequisite(s) graduate classification.

HISP 640. History of Ideas in the Hispanic World. (3-0). Credit 3. Intensive study of cultural and ideological currents, especially as they are reflected in the works of essayists and other writers. Possible topics include Spain and European culture. European thought in Latin America, the Renaissance in Spanish literature and social life, Spain and the Western tradition, the search for national identity in Mexico, U.S. Hispanic nationalism. Prerequisite(s) graduate classification.
HISP 645. Hispanic Women Writers. (3-0). Credit 3. A study of the development of writing by women in the Hispanic world, including Spain, Latin America, and the United States. Topics include identity and nation, building of a feminine aesthetics, the reception of women writers, literary canons and exclusion, women and/in the Latin American boom, Latina writers in the United States. Prerequisite(s) graduate classification.

HISP 646. Cultural Encounters and Border, from Baroque to the Present. (3-0). Credit 3. Topics include literature of marginalization in medieval Spain, colonial literature and the chronicles, Modernism, Vanguardism, contemporary trends in the Latin American novel, the novel of the Mexican Revolution, Afro-Hispanic literature, Hispanic Caribbean literature. Prerequisite(s) graduate classification.

HISP 650. Methods of Study in Spanish Literature. (3-0). Credit 3. Examination of various methods of linguistic analysis in Spanish, such as transformational grammar, socio or psycholinguistics in Spanish. Prerequisite(s) graduate classification.

HISP 653. Don Quixote and the Hispanic Novel. (3-0). Credit 3. Don Quixote and the development of modern fiction, its influence in the Hispanic narrative tradition, from Fernandez de Avellaneda to Perez Galdos, G. Garcia Marquez, and Carlos Fuentes, and the presence in the U.S. Hispanic novel. Prerequisite(s) graduate classification.

HISP 660. Reading and Research in Hispanic Cultural Studies. (3-0). Credit 3. Independent research in specialized subjects not normally or not often included in the regular course offerings. Prerequisite(s) graduate classification.

HISP 664. Hispanic Theatre. (3-0). Credit 3. Topics include Golden Age drama and the antecedents, Neo-Classical movement in Spain, regionalized and criollo drama in Latin America, avant-garde and collective creation theatre, Teatro Campesino and Chicano movement drama, Hispanic performance artists. Prerequisite(s) graduate classification.

HISP 665. Studies in Spanish Literature. (3-0). Credit 3. Topics include El Cid, El Arcipreste de Hita, El Romancero, Spanish Renaissance poetry, Golden Age theater, Cervantes, Lope de Vega, Gongora and Gongorismo, eighteenth-century essayists, Galdos, the Generation of 98, Romanticism, Miguel de Unamuno, the theater of Garcia Lorca, contemporary Spanish poetry, Spanish literature after Franco. Prerequisite(s) graduate classification.

HISP 670. Studies in U.S. Hispanic Literature. (3-0). Credit 3. Topics include bilingual literature, Nuyorican literature, Cuban American literature, Chicano literature, the immigrant novel, ethnic autobiography, U.S. Hispanic theater, Chicano theater. Prerequisite(s) graduate classification.

HISP 671. Bilingualism in Hispanic Literature. (3-0). Credit 3. This course will explore bilingualism in Hispanic letters. From Spanish medieval literature to contemporary Hispanic literature in the United States, the course will focus on artistic, aesthetic, social, historical, and cultural aspects of the uses of two languages in Hispanic literary works. Prerequisite(s) graduate classification.

HISP 672. Hispanic Film and Performance Arts. (3-0). Credit 3. A theoretical and historical exploration of cinema and performance arts in the Hispanic world. The description and interpretation of films and performance arts such as flamenco and folkloric ballet with particular attention to history, ethnology, artistic trends, and tendencies and relationships to other arts. Prerequisite(s) graduate classification.

HISP 675. Methods of Teaching Spanish to Native Speakers. (3-0). Credit 3. Presentation of the various theories and methods for the teaching of Spanish to students of Spanish-speaking backgrounds in the United States. Prerequisite(s) HISP 602 or approval of instructor.
MATH 669. Seminar in Mathematical Biology. (3-0). Credit 3. Problems, methods and recent developments in Mathematical Biology. Prerequisite(s) approval of instructor.

MGMT 660. Strategic and Global Human Resource Management. (3-0). Credit 3. This course will discuss the link between HRM and organizational strategy, and the importance of HRM in enhancing firm performance. Emphasis will be given to strategic HRM in employee relations, performance management, and reward systems. The course will also address issues and choices facing HR managers confronting multinational enterprises. Prerequisite(s) for students admitted to MR/HRM programs.

MODL 645. Studies in Modern and Classical Literatures. (3-0). Credit 3. Rotating topics in an identified area of French, German, Italian, Russian, or Classical literature. May be taken two times for credit. Prerequisite(s) graduate classification.

NUEN 630. Computational Methods for Particle Transport Problems. (4-0). Credit 4. Key properties of linear Boltzmann equation, including analytic solution of model problems, discretization methods; analysis of how well discretization methods reproduce important characteristics of exact solution; assessment of which properties are most important in various application.

PETE 634. Petroleum Reservoir Modeling and Data Analysis. (3-0). Credit 3. Introduces methods for modeling and integration of reservoir data required to apply these methods; emphasizes the integration of geological information into these models. Prerequisite(s) approval of instructor, graduate classification.

PETE 661. Drilling Engineering. (3-0). Credit 3. Introduction to drilling systems: wellbore hydraulics; identification and solution of drilling problems; well cementing; drilling of directional and horizontal wells; wellbore surveying abnormal pore pressure, fracture gradients, well control; offshore drilling, underbalanced drilling. Prerequisite(s) approval of instructor or graduate classification.

PETE 662. Production Engineering. (3-0). Credit 3. Development of fundamental skills for the design and evaluation of well completions, monitoring and management of the producing well, selection and design of article lift methods, modeling and design of surface facilities. Prerequisite(s) approval of instructor or graduate classification.

PETE 664. Petroleum Project Evaluation and Management. (3-0). Credit 3. Introduction to oil industry economics, including reserves estimation and classification, building and using reservoir models, developing and using reservoir management processes, managing new and mature fields, and investment ranking and selections. Prerequisite(s) approval of instructor or graduate classification.

PETE 666. Conservation Theory and Applications in Petroleum Engineering. (3-0). Credit 3. Includes formulation, modeling, and interpretation of drilling fluid systems, production systems, tracer testing, hydraulic fracturing, EOR/water flooding, polymer flooding, compositional simulation, thermal recovery, and coal-bed methane production; Mathematics as the symbolic/numeric computing platform. Prerequisite(s) instructor approval or graduate classification.

PHIL 646. Philosophy of a Particular Science. (3-0). Credit 3. Focus on methodology epistemological and ontological issues in physics, or one of the special sciences, such as biology, psychology, cognitive science, economics. Application of philosophical methods to theoretical issues in the particular science. Relationships between theories and explanations of the particular science more basic sciences or other special sciences. May be repeated for credit for courses focusing on different sciences. Prerequisite(s) consent of instructor.

PHIL 661. Seminar in the History of Philosophy. (3-0). Credit 3. Intensive study of a current issue in the history of philosophy. May be repeated for credit with variation in topic. Prerequisite(s) 12-hours graduate work in Philosophy plus instructor approval.
PHIL 662. Seminar in Ethics and Value Theory. (3-0). Credit 3. Intensive study of current issue in ethics, ethical theory, applied ethics, aesthetics, or the work of particular philosophers in one of these areas. May be repeated for credit with variation in topic. Prerequisite(s) 12 hours of graduate work in Philosophy plus instructor approval.

PHIL 663. Seminar in Metaphysics and Epistemology. (3-0). Credit 3. Intensive study of a current issue in metaphysics, epistemology, or other core areas of philosophy. May be repeated for credit with variation in topic. Prerequisite(s) 12 hours of graduate work plus instructor approval.

PHIL 665. Seminar in Applied Philosophy. (3-0). Credit 3. Intensive study of a topic involving the application of philosophical concepts and theories to an issue arising in another scientific or academic field. May be repeated for credit with variation in topic. Prerequisite(s) 12 hours of graduate work plus instructor approval.

PHIL 682. Philosophical Authors. Intensive study of works of an individual important philosopher, their historical context, and criticisms and interpretations of them. May be repeated for credit with different authors. Prerequisite(s) appropriate background in history of philosophy plus instructor approval.

PLAN 626. Advanced GIS in Landscape Architecture and Urban Planning. (2-2). Credit 3. This course is a continuation of GIS in Landscape Architecture and Urban Planning (PLAN 6250; topics include advanced discussion on spatial analysis technology; emphasis is placed on urban planning, landscape architecture, land development, hazard management and related applications. Prerequisite(s) PLAN 625.

PSYC 676. Web-Based Data Collection. (3-0). Credit 3. This course covers the conceptual, theoretical, technical and ethical issues associated with collecting data via the internet. It examines the advantages and disadvantages of using the web, the conceptual and ethical issues that arise, the technical aspects of preparing a data collection site, and the range of web resources available. Prerequisite(s) graduate standing.

PSYC 681. Industrial/Organizational Psychology. (3-0). Credit 3. Both research and applied colloquia provided by I/O psychologists and individuals in related disciplines. Prerequisite(s) graduate classification.

II. Change in Title and Description:

ARCH 651

From: ARCH 651. The Organization of Architectural Practice. The Organization of Architectural Practice; A critical examination of alternative forms of practice; topics include: internship and practice, firm strategies, organizational design and culture, firm economics, project organization and design leadership.

To: ARCH 651. Emerging Strategies in Architectural Management. Emerging strategies in Architectural Management; a critical examination of alternative forms of practice; topics include: internship and practice, firm strategies, organization design and culture, firm economics, project organization and design leadership.

EHRD 618

From: Tests and Measurements in Industrial and Vocational Education---Testing and measuring strategies and their applications to industrial and vocational education subjects.

To: Evaluation Models in Human Resource Development---Providing instruction, insights, and learning experiences regarding educational human resource development applications of and relationships among five leading types of evaluation: needs assessment, program design/delivery,
From: **Procurement and Management of Contracts and Grants.** Funding sources that support research and development activities; methods of securing funding; and management of funded projects; basic knowledge, skills and sensitivities needed to secure and manage projects supported through contracts and grants.

To: **Procurement of Contracts and Grants-Funding** sources that support research and development activities; identify methods of securing funding; study state, national and private funding sources and how to become successful in submitting to each; complete a proposal to a funding agency; and a management plan for a funded project.

**SPAN 601**

From: (Research, Theory and Writing)

To: **HISP 601** (Research, Theory, and Writing)

**SPAN 602**

From: (Applied Linguistics for Teachers of Spanish)

To: **HISP 602** (Applied Linguistics for Teachers of Spanish)

**SPAN 603**

From: (Development of the Spanish Language)

To: **HISP 603** (development of the Spanish Language)

**SPAN 607**

From: (Seminar in Spanish Linguistics)

To: **HISP 607** (Seminar in Spanish Linguistics)

**SPAN 667**

From: (Hispanic Genre Studies)

To: **HISP 607** (Seminar in Spanish Linguistics)

**SPAN 685**

From: (Directed Studies)

To: **HISP 685** (Directed Studies)

**SPAN 691**

From: (Research)

To: **HISP 691** (Research)
III. Cross Listing:

OCNG 675. Environmental Management System Strategies for the Scientist with MARS 675 at TAMUG.

OCNG 676. Marine Environmental Policy: A Survey with MARS 676 at TAMUG.