

# University Of Houston

## Index of Sustainable Courses

Total Graduate Courses	3126		AASHE points:	
Total Undergraduate courses	3480		ER 6	3.708749622
<b>Toatl</b>	<b>6606</b>		ER 7	<b>1.064582198</b>
Total Focussed courses	245			
Total Related Courses	211			
Total Sustainable courses	456			

**Cullen College  
of Engineering**

Department of  
Civil &  
Environmental  
Engineering

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
CIVE 1188	The challenge of civil engineering	focused		A study of the scope of the civil engineering profession and the vision of civil engineering for the twenty-first century.
CIVE 3331	Environmental Engineering	focused		Introduction to air, water, and environmental pollutants, and concepts of design for treatment.
CIVE 3332	Engineering materials		related	Analysis of properties of solid materials related to engineering design, introduction to metallurgical processes, and materials testing.
CIVE 3339	Geotechnical		related	Laws of mechanics and hydraulics applied to soils. Physical and
CIVE 4311	Civil Engineering Design and professional practice		related	Ideas, concepts, and approaches for design applied to small civil engineering projects. Ethics, professional conduct, legal issues, and communication in civil engineering practice.
CIVE 4331	Water quality Engineering	focused		Environmental chemistry and biology with applications to engineering problems in the natural environment. Emphasis on chemical and biological reactions of contaminants as they move through surface and ground waters and the resulting corrective actions
CIVE 4332	Hydrology	focused		Hydrologic cycle, rainfall and runoff, water losses, snowmelt, ground water, unit hydrograph, floods and flood routing, stream flow records, reservoir design, and sedimentation.
CIVE 4312	Civil Engineering Design Project	focused		Design of a civil engineering project, including social, economic, environmental, regulatory, and constructability factors.
CIVE 4333	Water and Wastewater Treatment	focused		The fundamental principles of design for municipal water and wastewater treatment facilities.
CIVE 4337	Transportation Engineering	focused		Highway, rail, water, air, and other modes of transportation, emphasizing problems related to their planning, use, operation, and maintenance.
CIVE 4363	concrete design	focused		Analysis and design of concrete structures and their components.
CIVE 4364	structural steel design	focused		Analysis and design of steel structures and their components.
CIVE 4369	foundation engineering		related	Applications of soil mechanics to foundation engineering. Exploration techniques, foundation selection criteria, design, and construction.

CIVE 5360	Urban and Regional Planning	focused		Collection and analysis of data for urban planning. Development of master plan emphasizing engineering aspects of utilities, transportation, and other city facilities.
6321	Experimental Soil Mechanics		related	Determination, interpretation, significance, and application of engineering properties of soils, including laboratory testing, sample handling, reliability of results, and methods of evaluation; field instrumentation.
6322	Storm Water Management		related	Detention pond analysis and design, stormwater analysis and management alternatives, governmental criteria, and computer programs.
6323	Advanced Foundation Design		related	Site characterization; in-site testing methods; reliability in foundation design; structural design of shallow and deep foundations.
6325	Geotechnical Engineering Investigations		related	Geophysical methods; subsurface explorations; soil sampling; groundwater conditions and monitoring;
6332	Ground Improvement, Grouting and Geosynthetics	focused		Basic concept of ground improvement, ground reinforcement and ground treatment. Landfill design.
6333	Stress-Deformation Behavior of Soil	focused		Basic concept of ground improvement, ground reinforcement and ground treatment. Landfill design. State-of-practice constructions methods and equipment
6334	Geotechnical stability		related	Shear strength of cohesive and cohesionless soils; stability of natural and man-made slopes; bearing capacity theory.
6335	Advanced Concrete design		related	Design of two-way slabs, long columns, and connections; deflection and cracking of beams and slabs; ACI design criteria.
6338	Advanced steel design		related	Plastic analysis of indeterminate structures; design of beams, columns, and beam-columns using the Load and Resistance Factor Design (LFRD) method.
6341	Bridge Design	focused		History, aesthetics, and classification of highway bridges. Bridge loads and load combinations. Design of deck slabs, concrete and steel girders.
6343	Retaining Structures and Slope Stability		related	Earth pressure theories; design of retaining structures such as braced, tied-back, slurry, and reinforced soil structures; stability of excavation, cut, and natural slopes; slope stabilization methods.
6349	Reliability and Safety of Structures		related	Review of probability theory and treatment of uncertainties in structural engineering. Probabilistic models for loads and resistance variables. Structural analysis incorporating uncertainties. Mathematical background of reliability theory. Probability-based limit state design
6350	Advanced Mechanics of Materials		related	Stress and strain at a point; failure criteria; energy principles and their application in structural mechanics; theories of torsion, unsymmetrical bending, shear center, curved beams, and beams on elastic foundation.
6351	Advanced Concrete Behavior		related	Behavior of reinforced and prestressed concrete sections and members subjected to axial force, movement, and shear. Confinement of concrete. creep, and shrinkage.
6355	Introduction to Dynamics of Structures		related	Fundamentals of vibration; dynamic response of structures to periodic and general dynamic loading; analytical and computational techniques.
6361	Groundwater Hydrology	focused		Distribution and flow of water in the hydrosphere. Engineering methods to quantify and model rainfall, runoff, recharge, and groundwater flow.
6362	Hydraulic Structures	focused		Analysis and design of water transmission, storage, and energy dissipating structures.
6363	Evaluation of Water Quality in Natural Waters	focused		Water quality management planning for rivers, lakes, and tidal estuaries; mixing and diffusion phenomena; biologic productivity; mineral, chemical, and oxygen utilization and equilibria; photosynthetic light transfer and sediment transport.

6366	Construction Project Management		related	Construction site organization-facilities design and control; fundamentals of planning and scheduling information for construction projects; control of activity sequence, time, resources and cost; the impact of quality, cost, schedule and productivity; coordination among stakeholders; international and large scale construction projects; construction interface; case studies in construction engineering.
6368	Human Resources Management in Construction		related	Decision making in construction industry; relationship between controls and behavior; construction productivity; corporate identity and reputation management; communication in construction engineering; client relationship marketing; span of control and liaison; reward policies, motivation and commitment; conflict management; job design, specialization and decentralization in construction engineering; managing international cultural differences.
6377	Environmental Chemistry		related	Aqueous environmental chemistry in natural waters and wastewaters: theory and practice of quantitative water and wastewater analysis.
6378	Principles of Environmental Modeling	focused		Applications to reactor engineering and environmental systems modeling with emphasis on water and wastewater systems.
6381	Biological Processes for Wastewater Treatment		related	Theory and practice of biological wastewater treatment including aerobic and anaerobic processes
6383	Advanced Planning and Design of Water Resource Systems		related	Conventional and computer solutions to the economical planning and design of single- and multiunit, multipurpose water resources systems.
6385	Stability of Structures		related	Elastic and inelastic buckling of columns, beams, frames, and plates; classical and work-energy methods; background of AISC specifications.
6387	Physicochemical Treatment Processes	focused		Theory and practice of physicochemical processes for water and wastewater treatment
6388	Solid and Hazardous Waste Treatment Processes	focused		Physical and chemical principles of solid and hazardous waste treatment processes:
6389	Civil Engineering Design	focused		Topics and projects illustrating civil engineering design theory and practice.
6390	Municipal Drinking Water Treatment		related	Theory and design of unit processes used in conventional drinking water treatment, filtration, and disinfection. Source water control is also studied.
6391	Environmental Engineering Microbiology	focused		Fundamental aspects of microbiology and biochemistry as related to environmental pollution and water quality processes
6392	Mass Transfer in Environmental Systems		related	Principles of mass transfer; mass conservation equations, diffusivities, mass transfer coefficients, mass transfer with chemical reaction with applications to multi-phase chemical transport, water and wastewater treatment, and soil remediation.
7332	Ground Water Contaminant Transport		related	Principles of contaminant transport in soils and aquifers. Mathematical modeling of underground contaminant transport.
7340	Earthquake Engineering		related	Characteristics of earthquake waves and ground motion; review of structural dynamics; building responses; inelastic spectrum; foundation effect; various support motions; hazard analysis; design procedure and seismic codes.

	7342	Engineering Geographic Information Svstems	focused		Use of GIS in Engineering applications including hydrology, hydrogeology, water quality and environmental resources.
	7365	Design of Offshore Structures		related	Design of fixed, floating and compliant offshore structures; environmental loading; dynamic analysis; finite element applications; design of structural systems and components; fatigue analysis; safetv and reliability analysis.
<i>Department of Electrical &amp; Computer Enaineerina</i>					
	<b>Course Number</b>	<b>Course Name</b>	<b>Sustainability focused</b>	<b>Sustainability related</b>	<b>Remarks</b>
	6301	Sensor Design and Applications		related	Design, analysis and application of sensors used to measure physical quantities such as flow, level, temperature, pressure and density.
	6368	Industrial Power System Analysis	focused		Industrial power system architecture and composition; voltage classes; voltage unbalance and deviation, and effects on equipment; power flow; voltage control and power factor improvement; fault analysis; control equipment for motors and generators; motor starting
	6377	Power Transmission And Distribution	focused		Power transmission and distribution network architecture and composition; load curves; symmetrical components; parameters and equivalent circuits in symmetrical components for overhead and underground lines, transformers, generators and loads; substations; industrial networks; network steady-state analysis; faults; protection systems; switching equipment; voltage and power static control; surge voltages and protection. A term project will be required.
	6378	Power System Analysis	focused		Power system architecture and composition; network matrices; power flow; economic operation; voltage and frequency control; fault analysis; voltage and angle stability. A term project will be required.
	6379	Advanced Power System Analysis	focused		Sparse matrix techniques; short circuit studies with computer; diakoptics; numerical solutions to the load-flow problem; economic dispatch.
	6381	Industrial Substations And Switching Equipment		related	Industrial substation configuration and composition; cable and busway system design, installation, protection and testing; switching apparatus fundamentals, types, design, operation, protection; substation planning, design, construction, automation, operation
	6389	Industrial Power System Management	focused		Planning: scope, requirements, component cost, cost estimation; reliability: fundamentals, equipment data, probability methods; interruption cost and economic analysis; maintenance, preventive measures; emergency and standby power, supply and stored energy systems; energy and load management, energy saving, conservation, cogeneration (not for Ph.D. credit).
	6395	Industrial Power Monitoring And Control	focused		Monitoring and control system architecture, design options, modes of communication, equipment and installation cost; multifunctional microprocessor based systems; control integration, monitoring and protection systems (not for Ph.D. credit).
	7337	Industrial Power System Protection		related	Protection tasks, requirements, principles, components; instrument transformers; protective systems: transformers, feeders, generators, motors, prime-movers, buses, switchgears, cables, transfer devices, busways, UPS, service supply lines and utility interties protection schemes; components, operation, faults, testing, maintenance, calibration.

*Department of Industrial Enaineerina*

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
INDE 3330	Financial and cost management		related	Methods for collecting, organizing, presenting, interpreting, managing, and controlling of financial and cost management related information for decision making in enterprises
INDE 3334	Industrial Engineering Fundamentals		related	Production: principles, systems, methods, analysis, management, economics, control, and techniques of improvement.
6333	Industrial Ecology	focused		Systems analysis of manufacturing processes and engineering design in environmental context; design for environment; environmental accounting

Department of Mechanical Engineering

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
MECE 5350	Design of alternative energy system	focused		Energy policy and economics, fundamentals of alternative energy devices, analysis and design of solar thermal collection and storage systems. Design project.
MECE 5364	Industrial Energy Conservation	focused		Technical and economic principles needed to assess the potential for energy conservation projects in energy-intensive industries. Lighting, ventilation, and air conditioning of industrial buildings.
6345	Hydrodynamic Stability		related	Introduction to hydrodynamic stability. Thermal and centrifugal instabilities. Stability of parallel and nonparallel bounded and free shear flows using analytical and numerical techniques. Nonlinear stability and relation to turbulence.
6346	Geophysical Fluid Dynamics		related	Introduction to geophysical fluid dynamics: the physics of atmospheric and oceanic motions. Effects of rotation and stratification; geostrophic flows. The dynamics of hurricanes and tornadoes.
7371	Advanced Fracture Mechanics		related	Stress analysis of cracked elastic and inelastic solids; failure criteria for brittle and ductile materials; applications to various structural problems.

Department of Petroleum Engineering

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
PETR 1111	Introduction to Hydrocarbon resources	focused		Overview of petroleum industry and petroleum engineering including nature of oil and gas reservoirs, petroleum exploration and drilling, formation evaluation, completion and production, reservoir mechanics, and improved oil recovery.
PETR 3315	Introduction to well logging	focused		Modern well logging methods, engineering, and core-log integration.
PETR 5310	Petroleum production economics	focused		Estimation of initial reservoir contents, forecast production versus time, primary, secondary and tertiary methods, evaluation of costs and risks versus expected rewards, and various US and international contracting techniques.
PETR 5325	Integrated Reservoir Characteristics		related	Modern reservoir characterization techniques including based and object-based geostatistical methods designed to capture the influence of geology on fluid flow storage.
PETR 5361	Introduction to Petroleum Engineering	focused		Petroleum origin and migration, major oil and gas fields, drilling and production methods, petroleum composition and phase behavior, and reservoir engineering methods of oil resource estimation and optimization.
PETR 5364	Origin and development of oil and gas reservoir	focused		Major oil provinces of the world reviewed from the standpoints of geologic and depositional environment, and of diagenetic changes affecting petroleum entrapment.

PETR 5350	Natural Gas engineering	focused	Supply of natural gas including exploration, production unconventional resources, transportation, processing, conversion, and fuel cells.
PETR 5370	Petroleum production operations	focused	Subsurface and surface facilities for producing oil and gas, gas-oil and water-oil separation and measuring systems, gathering systems, gas processing facilities, injection systems for gas or water.
PETR 5372	Petroleum production operations	focused	Subsurface production fundamentals for producing oil and gas wells with technical emphasis on reservoir inflow, multiphase outflow through the wellbore and surface piping to the separation facility, and artificial life methods.
5362	Reservoir Engineering I	related	Rock and fluid properties and interactions, P-V-T behavior of crude oil and natural gas, fundamentals of fluid flow through subsurface porous media, reservoir energy mechanisms in recovery, material balance, and reserve estimation.
6302	Reservoir Engineering II	related	Capillary pressures and vertical distribution of gas, oil, and water saturations, relative permeability and fractional flow relationships, Buckley-Leverett equation and linear displacement efficiency of gas and water drives; effect of well patterns, mobility ratio, and reservoir heterogeneity on areal and vertical sweep efficiency performance of black oil reservoirs.
6304	Evaluation of Petroleum-Bearing Formations I	focused	Characterization of formations by geologic and petrographic examination; by analysis of fluid contents of cores; and by a suite of well-logging tests and their combined interpretation.
6306	Oil Field Facilities Design and Operation	focused	Design and operating principles of gas and water surface separation , water supply and water disposal systems
6308	Advance Petroleum Production Operations	related	Inflow performance relationships for oil, two-phase and natural gas wells. The near-well zone and damage. Vertical lift performance and well deliverability. Forecast of well performance. Methods of diagnosis of well performance, well testing and production logging. Well stimulation by acid treatments and hydraulic fracturing. Artificial lift (gas and pump-assisted.) Systems analysis.
6310	Petroleum Production Economics	related	Estimation of initial reservoir contents and forecasts of production versus time of crude oil and natural gas by primary, secondary, and tertiary recovery methods, evaluation of costs and risks versus expected rewards by alternative recovery methods, measures of profitability by discounting and cash flow calculations, effects of taxation and external financing.
6312	Evaluation of Petroleum-Bearing Formations II	related	Advanced well-log interpretation and logging tool theory. Evaluation of Petroleum-Bearing Formations.
6318	Oil Field Facilities Design II	related	Design theory and practice for facilities for unusual situations as may be required of practicing engineers; adaptations for offshore and other hostile environments.
6320	Enhanced Oil Recovery Processes I	focused	Review of waterflood calculation methods, extension to polymer flooding, caustic flooding, and carbonated water flooding. Hydrocarbon miscible flooding and CO flooding, estimation of recovery
6322	Enhanced Oil Recovery Processes II	related	Effect of dimensionless ratios of reservoir forces on trapping and displacement of waterflood residual oil by chemical slugs, design of slug and drive fluids for varying reservoir characteristics. Design and estimation of performance of steam soak, steam drive, and in-situ combustion recovery processes.
6325	Integrated Reservoir Characterization	related	Focuses on modern reservoir characterization techniques including based and object-based geostatistical methods designed to capture the influence of geology on fluid flow storage.

6327	Thermal Recovery Processes	focused	Principles of thermally enhanced recovery of oil; hot-water or steam-soak injection; in-situ combustion.
6350	Natural Gas Engineering	focused	A comprehensive study that focuses on natural gas engineering, the energy situation today and the emerging technologies of tomorrow. Covering the supply of natural gas, production, transportation.
6364	Origin and Development of Oil and Gas Reservoirs	focused	Major oil provinces of the world reviewed from the standpoints of geologic and depositional environment, and of diagenetic changes affecting petroleum entrapment.
6372	Petroleum Production Operations	focused	Subsurface and surface facilities for producing oil and gas, gas-oil and water-oil separation and measuring systems, gathering systems, gas processing facilities, injection systems for gas or water.

Department of  
Chemical  
Engineering

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
CHEE 4361	Chemical Engineering Practices		related	Design and execution of experiments with emphasis on heat and mass transport, unit operations, process control, and reactors.
CHEE 5371	Pollution Control Engineering	focused		Pollution problems and remedies with the earth as an environmentally closed system.
CHEE 5373	Environmental Remediation	focused		<i>In situ</i> and <i>ex situ</i> methods of remediation or restoration of contaminated environmental sites. Emphasis is on hydrocarbon contaminants in soil, surface water and groundwater.
CHEE 5386	Air Pollution Problems and Control	focused		Air pollutant identification and control technology; estimation of pollutant transport
CHEE 5388	Catalytic Processes		related	Process-oriented survey of catalytic technology; catalyst selection and design; catalytic processes, engineering and economics in the petroleum, chemical, and pollution control industries.
CHEE 5390	Energy and the Environment	focused		surveys modern energy technologies and their impact on the environment. Topics include energy generation from fossil, nuclear, and renewable sources. Energy utilization covers stationary and transportation applications. Optimization of source-to-consumer efficiencies and minimization of emissions are included, with special emphasis on emerging technologies such as fuel cells. Capstone topics for the course are future developments in the hydrogen economy and the technical-economic-social aspects of global warming.
6371	Pollution Control Engineering	focused		A general survey of problems and remedies with the earth as an environmentally closed system.
6386	Air Pollution Problems and Control	focused		Air pollutant identification and control technology; estimation of pollutant transport, dispersion, and conversion; computer application for design of control units.
6388	Catalytic Processes		related	Process-oriented survey of catalytic technology; catalyst selection and design; catalytic processes, engineering, and economics in the petroleum, chemical, and pollution control industries.

**College of  
Architecture**

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
6390	Energy and the Environment	focused		This course surveys modern energy technologies and their impact on the environment. Topics include energy generation from fossil, nuclear, and renewable sources. Energy utilization covers stationary and transportation applications. Optimization of source-to-consumer efficiencies and minimization of emissions are included, with special emphasis on emerging technologies such as fuel cells. Capstone topics for the course are future developments in the hydrogen economy and the technical-economic-social aspects of global warming.
ARCH 1100:1101	Introduction to architecture and industrial design I & II		related	Introduction to architecture and industrial design theory, history, technology, and practice.
ARCH 1200	Introduction to architecture and industrial design and interior architecture		related	Introduction to architecture, industrial design, and interior architecture theory, history, technology, and practice.
ARCH 1360	Architectural Sketching I		related	Architectural sketching. Representing and interpreting architecture and entourage using conventional techniques and skills.
ARCH 2325	Conceptual Structural Svstem		related	Concepts of structural systems and forces.
ARCH 2326	Conceptual Enviornmental System	focused		Concepts of environmental systems in architecture. Comfort, climate, passive systems, site design, electrical lighting, daylighting, and mechanical systems.
ARCH 2370	Architectural Modelling		related	Project-based explorations of modeling techniques including milling wood, painting and finishing, photo etching, screen printing, and aluminum/acrylic/wood combinations.
ARCH 3325	Quantitative Structural Systems		related	Numeric methods of assessing wood, concrete, and steel structures.
ARCH 3326	Quantitative Enviornmental Svstem	focused		Numeric methods of climate analysis, passive and active heating, cooling, lighting, and acoustics. Introduction to computer simulation of environmental svstems.
ARCH 3349	Urban Expectation		related	Seminar reviewing and critiquing master plans for developing cities in this century in terms of expectations, real and utopian.
ARCH 3367	Sustainable Architecture	focused		Sustainable design strategies and logic, materials selection, construction methods, and energy efficiency. Indoor air quality, energy conservation, ecological impact of built projects, environmental regulation, and worker productivity.
ARCH 3368	Sustainable Development	focused		overview of environmental and ecological systems, land use, smart growth, new urbanism, traffic and transportation,
ARCH 4370	Urban Enviornment I	focused		An examination of the social, economic, cultural, and political development of cities.
ARCH 4373	Urban Enviornments	focused		An examination of the social, economic, cultural, and political development of cities including the diverse needs, values, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity for the societal roles and responsibilities of architects.
ARCH 4500	Interior Architecture Design Studio VII	focused		Exploration of large scale buildings and urban design factors including programming, aspects of land development, and the human and environmental impact of individual design applications in the built environment.



INAR 3310	Material and Methods of Interior Architecture	focused		Construction systems, advanced and emerging technologies and materials, scheduling, budgeting, sustainability, and life safety issues for architectural interiors.
INAR 4500	Interior Architecture Design Studio VII	focused		Large scale building interior design factors, including programming, and the human and environmental impact of individual design applications in the built environment.
INDS 3501	Industrial Design Studio VI	focused		Analysis of product content and context, including social, cultural, and environmental elements.
6321	Design of Construction Details		related	The theory and practice of developing architectural details.
6323	Attention to Architectural Detail		related	The theory and practice of developing architectural details.
6324	High Rise Structures		related	Structural design concepts and systems for tall buildings.
6326	Conceptual Environmental Systems		related	Introduction to concepts of environmental systems in architecture including comfort, climate, passive systems, site, lighting, electrical , daylighting
6327	Quantitative Structural Systems		related	Numeric methods of determining wood, concrete, and steel structures.
6328	Quantitative Environmental Svstems		related	Numeric method of: climate analysis; passive and active heating, cooling, and lighting
6329	Building Systems Integration		related	Architectural and technical integration of traditional and innovative building systems
6355	Houston Architecture	focused		Survey of Houston architecture, past and present.
6360	Practice of Architecture		related	Case studies and analysis of issues facing the profession: ethics, morality, intent, criticism, liability, etc. The intent is to approach office practice through issues rather than through documents; and exploration of the present and future mission of the profession.
6361	Methods of Land Development		related	
6362	Modern Architecture and Design		related	Examination of the role of machine-age aesthetic, tradition, and geography (climate, topography) in the design of houses throughout the Twentieth century.
6366	Materials and Methods of Construction	focused		Materials and methods of construction, including construction systems, advanced and emerging technologies, scheduling, and budgeting.
6373	Urban Environments	focused		An examination of the social, economic, cultural, and political development of cities including the diverse needs, values, and social and spatial patterns that characterize different cultures and individuals and the implication of this diveristy for the societal roles and responsibilites of architects.
6376	Urban Design Determinants	focused		Economic, political, social and physical factors that become the design determinants of urban environments.
6377	Housing issues		related	Quantitative and qualitative analysis of the development and design of the housing sector.
6600	Architecture Design Studio I		related	Introduction to architecture and basic design concepts through a series of projects that develop individual cognitive design tools and skills.
6601	Architecture Design Studio II		related	Further development of cognitive design tools and skills. Introduction to organizational structures with problems of growth, change, aggregation, and metamorphosis at various scales.
6602	Architecture Design/Build Workshoo		related	Design and construction of a site specific climate-influenced building project.

6603	Architecture Design Studio III		related	Design projects exploring the architecture of place.
6604	Architecture Design Studio IV	focused		Design projects exploring critical issues of architecture within an urban context.
7371	Land Use/Planning Methods	focused		Overview of the nature of current land use planning, social, economics
7373	Urban Planning Law	focused		Federal, state, and municipal laws and regulations which shape and influence the physical character of urban environment.
7380	Man-Systems Integration	focused		Integration of human and machine requirements, primarily applications in space and other extreme environments.
7381	Space Systems Technologies	focused		Survey of and investigations of extreme environment technologies concentrating on applications in space.

**College of  
Education**

Department of  
Curriculum and  
Instruction (CUIN)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
CUIN 4305	Teaching Environmental Education	focused		Curricula, methods, and materials for K-12 environmental education.
6328	Teaching K-12 Environmental Education	focused		Methods and materials for ecological and environmental education instruction in K-12 classrooms.
6339	Teaching About Chemicals and the Environment	focused		Explores the manufacture, use, environmental impact, and other issues related to chemicals in society

Department of  
Cultural and  
Urban Studies  
(CUST)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
CUST 3320	Multicultural Environments in Urban settings		related	Educational experiences of children in multicultural schools and communities.
CUST 4300	Asian American Cultures		related	Synthesis of major themes relating to the nature, formation, and development of Asian American cultures within the U.S.
6311	Education in a Multicultural Society		related	Examination of psychological, sociological, political, and economic forces on education within various communities.
7360	Global Education		related	An investigation of the concept of global education, including cross-cultural and state of the planet awareness, along with a consideration of other images of the world. Includes a field experience in a foreign country.

Department of  
Elementary  
Education (ELED)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
ELED 4312	Science in Elementary school	focused	related	Field-based course that introduces the curriculum, concepts, methods, and materials for teaching science in the elementary school.

Department of  
Educational  
leadership and  
cultural studies  
(FIRC)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
7343	Educational Finance		related	Economic relationships and problems in local, state, and national financial support of education; federal participation, state financial systems, local taxation, and indebtedness.
7346	Education Facilities and Environment	focused		Planning educational facilities and learning environments; administration of building projects
8350	Human Resource Management		related	Advanced study and practice of personnel administration. Topics may include policy trends, theory and research, agreements, planning, and current issues.
8361	Public and Community Relations		related	Current research in community, public and human relations with emphasis on communication.

Department of  
Educational  
Psychology (EPSY)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
6330	Human Growth and Development		related	An introductory survey of current developmental theories and research with emphasis on the affective, social, and intellectual areas.
8356	Environmental Interventions	focused		Theoretical and empirical approaches to environmental planning and design whose objective is to solve human problems. Implications for appraisal, diagnosis, and intervention in counseling psychology.

Department of  
Health Education  
(HLT)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
HLT 3306	Environmental Health		related	Community health problems; investigation of mobilization of the public and official voluntary health agencies to minimize such problems.
HLT 3381	Health Promotion and Disease Prevention		related	An overview of theories and strategies in health education for prevention and control of common diseases and promoting health.
HLT 4303	The Obesity Epidemic	focused		Public health, policy, and environmental correlates of obesity prevention and control in the U.S.

Department of  
Human Nutrition  
and Foods (NUTR)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
NUTR 2332	Introduction to Human nutrition		related	Principles of human nutrition, with emphasis on the nutrient composition of foods, nutrient absorption, and metabolic and physiological processes. Evaluate nutrition claims.
NUTR 2333	Food science I	focused		Introduction to general principles of food, preparation and their relationship to chemistry and microbiology.
NUTR 3330	Food service system management		related	Overview of food service management with emphasis in operation and management functions. Includes food safety, menu, purchasing and receiving, production and service, facility design, accounting, marketing, and human resources..

NUTR 4312	Nutrition assessment and planning		related	Determination of nutritional status of individuals, including dietary assessment and anthropometric techniques. Emphasis on diet modification, counseling, documentation, and provision of care.
NUTR 4345	The Obesity Epidemic	focused		Investigation of public health, policy, and environmental correlates of obesity prevention and control in the U.S.

**College of  
Business- CT  
Bauer College**

*Department of  
Accounting (ACCT)*

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
ACCT 4378	Oil and Gas Accounting	focused		Accounting for exploration, acquisition, drilling, production, and conveyances of oil and gas.

*Department of  
Finance (FINA)*

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
FINA 4371	Energy value Chain	focused		The nature of energy assets, operations and products produced, and the economics of each component of the EVC.
FINA 4375	Economics of Energy	focused		Description and analysis of supply and demand fundamentals and pricing mechanisms for oil, refined petroleum products, natural gas, and electricity.

*Department of  
Management  
(MANA)*

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
MANA 4342	Organizational theory and Analysis		related	Organizational structure, design, and processes that influence effectiveness, as well as their interface with the external environment.

*Department of  
Supply Chain  
Management  
(SCM)*

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
SCM 4390	Energy Supply Chain	focused		Overview of the physical supply chain that brings energy (oil, natural gas, electricity, nuclear, and alternative forms) from sources to customers

*Department of  
Marketing  
(MARK)*

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
7368	Integrated Marketing Communications		related	The use of advertising, public relations, and other promotional tools

**Conrad N.  
Hilton College**

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
HRMA 1337	Introduction to Hospitality Industrv	focused		History and development of the hospitality industry, including food, beverage, and lodging management

HRMA 1422	Food Service production and operation	focused		Food service systems, including menu management, purchasing and production applied to an operating environment.
HRMA 2220	Food and Beverage service		related	Service styles, practices, and procedures in food service operations, including laboratory experiences.
HRMA 2350	Managing in the service environment		related	Application of service concepts within the hospitality industry. Guest services, building customer loyalty, service quality, and advanced service methods.
HRMA 3144	Business practices of alcohol beverage sales		related	Pricing, discounts, and deals offered to hotel, restaurant, and retail vendors of liquor, beer and wine.
HRMA 3255	Event and public facilities management		related	Analysis of event management focusing on sports and entertainment. Human resources, customer service, facility, marketing, merchandising, and promotions.
HRMA 3321	Contract food service management	focused		The field of professional contract food management, including the accounting, legal, marketing, sales, production, and personnel functions.
HRMA 3322	Kitchen Operations Management		related	Food preparation techniques based on menu and recipe requirements, including ingredient quality and yield factors. Aesthetic plate and buffet presentations. Includes laboratory.
HRMA 3327	Restaurant design layout		related	Location and arrangement of equipment for efficient utilization of space and development of work flow patterns to meet operational requirements. Work optimization, human interactions, and styles of service and room configurations for front of the house.
HRMA 3329	Catering and Food Styling	focused		Food preparations for large banquet/catering operations. Laboratory experience in ordering food, costing recipes, labor calculations, and preparation and presentation of food.
HRMA 3343	Hospitality cost controls		related	Principles and procedures for controlling food, beverage, and labor costs in the hospitality industry.
HRMA 3345	Wine appreciation		related	Wine producing regions of the world. Compiling of wine lists, serving, and recommending wine and food combinations.
HRMA 3349	Hospitality Purchasing	focused		Procedures and practices in the purchasing function for acquiring hospitality services, food, beverages, equipment, and supplies.
HRMA 3352	Human Resource Management	focused		Application of human resource management in hospitality environments; selection, placement, training, compensation, motivation, and performance appraisals of organizing members; labor relations and government regulations specific to the hospitality industry.
HRMA 3356	Resort Management		related	Management of resort properties, labor, culture, and purchasing decisions.
HRMA 3358	Hospitality industry law		related	Laws applicable to ownership and operations of hotels, restaurants, and clubs.
HRMA 3386	Living and Working in Space	focused		Space exploration and its effects on our lives and our future. History of space exploration, nutrition requirements, food system design, recycle systems, employment opportunities.
HRMA 4140	Current issues on Hospitality Finance and Technology		related	Hospitality finance and technology issues which impact the lodging, food service, and club industries with input from industry experts.
HRMA 4322	Restaurant Management		related	Control systems as diagnostic indicators, the role of managerial leadership, staff selection and staff development, effective approaches to successful client relations, and approaches to maintaining the balance between food, service, and facilities quality.
HRMA 4323	Advanced food and beverage Management	focused		Preparation of menus, recipes, food preparation. Integration of all aspects of restaurant operation.

HRMA 4324	Applied Nutrition for Hospitality Management	focused		Principles of nutrition, and design of fitness centers, and consumer research. Computer based nutritional analysis for development of menus.
HRMA 4325	Food product Development for Hospitality Industry	focused		Theoretical and practical consideration in the development of commercial food products for the hospitality industry.
HRMA 4326	Catering Management		related	Catering operations and management, catering in the hospitality industry. The laboratory component encompasses all aspects of catering management.
HRMA 4328	Restaurant Development	focused		Analysis and evaluation of food service operation development emphasizing marketing analysis, location, valuation, and financing.
HRMA 4336	Beverage Marketing		related	Identify and analyze the segmenting, targeting, and positioning of the alcoholic beverage industry with emphasis on the suppliers, retailers, and on-premise accounts to understand product assortment and pricing decision.
HRMA 4338	Hotel Development		related	Analysis and evaluation of hotel development. Emphasizing marketing analysis, location, valuation, and financing.
HRMA 4340	Hotel Operations		related	Hotel operating policies and procedures; relation of these policies to philosophies and objectives.
HRMA 4343	Financial Administration for Hospitality Industry		related	Principles of hospitality managerial finance including the mathematics of finance, working capital and capital asset management, cost of financing, property valuation, and financial feasibility studies.
HRMA 4353	Leadership in hospitality industry		related	Hospitality leadership philosophies. Coaching, teaching, facilitating, and motivating a workforce in various hospitality environments.
HRMA 4373	Current Issues in Convention Services		related	Analysis of current issues in convention, meeting and event management with emphasis on current and future trends and their impact on the hospitality industry.
HRMA 4387	Food Service in Space for 21st Century		related	Evolution of feeding in space as an example of a food service system. Prior space-food programs and the future challenges.
HRMA 4388	Managing for Diversity in Hospitality Industry		related	Evolving issues of workplace diversity. The impact of cultural, legal, and economic forces on business. Management of an increasingly diverse workforce with respect to moral, legal, and employee relations considerations.
HRMA 6110	Professional Development		related	Developing successful strategies for marketing yourself and
HRMA 6140	Current Issues in Hospitality Finance		related	enhancing your perspective for successful entry into the highly
HRMA 6249	Food & Beverage Purchasing	focused		Analysis of vendor and purveyor selection for the purchasing manager.
HRMA 6336	Facilities Management	focused		Work analysis to site planning for the management of mechanical, electrical, fire, safety and energy conservation systems.
HRMA 6337	Human Resource Management		related	The application of current sociological and psychological theories to organizational behavior, motivation, and conflict in government with focus on employee employer relations and diversity in food service, lodging and club establishments.
HRMA 6341	Food & Beverage Systems Management	focused		Study of the various food service systems, theories of nutrition and public health, and their impact on the hospitality industry.
HRMA 6349	Special Applications in Feeding and Lodging	focused		An interdis-ciplinary approach to special problems in providing food service and lodging in remote locations

HRMA 6351	Lodging Operations Management		related	Theoretical applications and process improvement in managing the major divisions of a lodging establishment.
HRMA 6356	Hotel Development	focused		Analysis and evaluation of the feasibility study development in hospitality industry operations with emphasis on market analysis, property location, valuation and finance.
HRMA 6361	Hospitality Marketing Analysis		related	Technological analysis of the environments, opportunities, and strategies particular to managing the marketing function in the hospitality industry
HRMA 6366	Hospitality Management Strategies		related	Strategic management of lodging, food service and travel-related businesses focusing on current issues, development, finance, human resources and marketing.
HRMA 6365	Tourism and Travel	focused		Analysis of the interactive economic and cultural influences of tourism and travel on the hospitality industry.
HRMA 6369	Hospitality Financial Assets Planning and Management	focused		Acquisition of long-term assets, lease purchase decisions, cost of capital, and effects of the economic cycles on long-term financing in hotel and restaurant operations.
HRMA 6370	Professional Convention Management	focused		Areas of focus include program planning, budgeting, public relations, food and beverage and hospitality planning, audio visual and transportation coordination, and human resources.
HRMA 6374	French Culture and Tourism		related	Topics of discussion include the hotel management, restaurant management, school food service management
HRMA 6377	Japanese Culture and Tourism		related	Topics of discussion include tourism in Japan, tourist attractions, hotel management, restaurant management, school food service management and convention management.
HRMA 6383	Club Operations Management	focused		Analysis and strategic management in the private club industry with emphasis on environments
HRMA 6387	Food Service in Space for the 21st Century	focused		evolution of feeding in space as an example of a food service system

**College of Pharmacy**

Department of Pharmacology (PCOL)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
PCOL 4131	Drug uses and abuses		related	Student introduction to research topics and scientific approaches in the pharmacological and pharmaceutical sciences.

Department of Pharmacy Interdepartmental (PHAR)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
PHAR 2362	Principles of Drug Action		related	A critical examination of man's environment with particular emphasis on the benefits and risks of drug usage and exposure to chemicals.
5375	Anatomy		related	An indepth study of human anatomy designed to prepare the student to have a better understanding of the effect of drug products in the treatment of diseases.

Department of Clinical Sciences and Administration, Pharmacy Administration (PHCA)

**College of  
Technology**

Department of  
Biotechnology  
(BTEC)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
6405	Pharmacy Economics		related	This course focuses on cost benefit, cost-utility analysis, and other methods of decision analysis. Included are issues related to outcomes measures and their analysis.
Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
BTEC 1322	Introduction to Biotechnology	focused		Review of techniques used in food, agricultural, pharmaceutical, industrial, and environmental biotechnology
BTEC 2320	Biotechnology Regulatory Environment		related	Role of regulatory agencies during the discovery, development, and manufacture of new medical devices, biotechnology, biomedical, and pharmaceutical products
BTEC 3320	Introduction of Quality control/Quality Assurance in Biotechnology		related	Quality control techniques, assurance issues, and management methods. Quality in design and planning, in the constructed project, and in production of goods and services.
BTEC 4101	Principles of Bioprocessing Laboratory	focused		Cell culture techniques, principles of bioreactor operations and purification techniques, and calibration and environmental monitoring.
BTEC 4301	Principles of Bioprocessing		related	Cell culture techniques, principles of bioreactor operation and purification, important tasks for clean room operations, including sanitization, sterilization, cleaning procedures, calibration, and environmental monitoring.

Department of  
Construction  
Management  
(CNST)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
CNST 1301	construction material and methods			
CNST 1315	Project Drawings & Graphics		related	Reading drawings and graphics for process and industrial type projects.
CNST 1325	Process and Industrial Construction		related	Construction methods and materials common to installation process and industrial projects.
CNST 2321	Mechanical and Electrical System		related	Planning and construction of mechanical and electrical systems common to construction projects
CNST 3301	Construction equipments and methods		related	Construction equipment and selected construction methods including economy, selection, productivity of common construction equipment.
CNST 3205	Construction Safety Management		related	OSHA regulations and industry practices related to creating and maintaining safe construction sites.
CNST 3301	Construction Equipment and Methods	focused		Construction equipment and selected construction methods including economy, selection, productivity of common construction equipment. and construction procedures for industrial and heavy civil construction..
CNST 3311	Structural steel and timber construction		related	Design aspects of temporary structures using steel and timber standard shapes/components involving the application of the AISC Code and also the design of wood formwork systems.
CNST 3312	Project Finance and Economics		related	Basic skills and tools of financial analysis. Decision making based on accounting data, cost analysis, and the user's investment parameters.



CNST 3315	Steel Construction		related	Steel properties, standard shapes, design, and installation of steel elements common to industrial and process projects such as tanks, pipes, and pipe supports.
CNST 3331	Construction Planning and Scheduling		related	Planning, scheduling principles, and techniques common to construction projects utilizing industry standard scheduling software packages.
CNST 3351	Construction Estimating II		related	Skills and tools necessary to prepare formal bids for construction projects, pricing, indirect costs, bid analysis, and use of computer aided software.
CNST 3355	Strength of construction material	focused		Fundamentals of construction engineering with respect to stress, strains, and deflection of structural components of buildings
CNST 3365	Cost Estimating for Capital Projects		related	Cost estimating of industrial and process projects including FEED and definitive estimates.
CNST 4190	Current Issues in Construction Management	focused		Contemporary topics and developments in the field of construction engineering and management.
CNST 4265	Construction Layout and Site Development	focused		Requirements and regulations related to zoning, platting, and drainage for new land development, and addressing environmental issues for construction sites
CNST 4290	Current Issues in Construction Management	focused		Contemporary topics and developments in the field of construction engineering and management.
CNST 4331	Construction Management II		related	Capstone course in which students develop a formal proposal (company profile, estimate, schedule, construction methodology, safety plan, value engineering reviews) and present to a panel of industry professionals.
CNST 4345	Reinforced Concrete Structures		related	Design and installation of concrete elements common to process and industrial projects such as slabs, beams, heavy concrete pours, short columns, and pedestals.
CNST 4372	Soil mechanics and Foundation	focused		
CNST 4390	Current Issues in Construction Management	focused		Contemporary topics and developments in the field of construction engineering and management.
6320	Cost Analysis and Bidding		related	Preparation of parametric and definitive estimates, cost forecasts and variances, bid analysis, and use of estimating software.
6340	Best Practices in the Construction Industry		related	Current issues in the construction industry, including best practices developed at the Construction Industry Institute (CII) and critical issues facing the construction industry.
6350	Decision Making and Risk Management	focused		Decision making, risk analysis, quantitative analysis, and application of quantitative methods to construction projects' environment.
CNST 6380	LEED and Green Construction Principles in Construction Management	focused		Green construction methods and benefits in applying the Leadership in Energy and Environmental Design (LEED) principles.
CNST 6370	Quality Management and Six Sigma in Construction Management		related	Concepts, standards, and tools of quality management with emphasis on the Six Sigma methodology for construction projects.
6390	Leadership for Construction Managers	focused		Leadership theories and styles, motivation and management of a diverse construction workforce, and ability to succeed in a global/international market.

Department of  
Electrical-  
Electronics  
Technology (ELET)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
ELET 4303	Computer-Based Power Distribution and Transmission	focused		Principles of operation and applied design of bulk power distribution and transmission systems and substations.
ELET 4305	Project Management and Economic Considerations for Power	focused		Management, economic factors, design, and layout of electrical power systems for commercial and industrial facilities.
ELET 4310	Customized Alternative Electrical Energy Sources	focused		Relative advantages and economic factors associated with alternative energy sources, utility interface issues and their impact on power quality.
ELET 4319	Electrical Power Systems and Industry Practices	focused		History, regulatory and legal issues in electrical power. Relationships among institutions involved in electrical power: FERC, North American Reliability Council, state regulation boards, and EPRI. Basic electrical power generation plant principles.
ELET 4320	Nuclear Fueled Electrical Power Plants	focused		Nuclear fueled electrical power plants: types, operation, advantages, disadvantages, trends.
6348	Power Systems Control Technology	focused		Electric power systems modeling and analysis. Grid integration of intermittent distributed energy resources. Power system control fundamentals.

Department of  
Human  
Development and  
Consumer  
Sciences (HDCS)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
HDCS 1300	Human Ecosystem and Technological change	focused		Introduction to the study of human and consumer needs, values, and goals in relationship to natural, man-made, and behavioral systems within the context of dynamic technological change.
6331	Advanced Strategies for Futures Planning in Consumer Sciences and Retailing	focused		Strategic thinking for changing retail environments and organizations, focusing on research, best practices, and planning.

Department of  
Information  
Systems (ITEC)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
ITEC 3343	Information Systems Analysis and Design		related	Development and evaluation of information systems with relation to efficiency and cost. Case study approach.
6382	Quality and Productivity Management for Technology		related	Employee learning curves and work measurement and their effects on productivity, total quality control, measurement of quality costs, and quality improvement strategies.

Department of  
Supply Chain and  
Logistics  
Technology  
(LOGT)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
LOGT 3376	Global Trade Intermediaries		related	In-depth analysis for critical intermediaries in a supply chain system, their operations and relationships to business partners, and factors for them to achieve superior supply chain performances.
LOGT 3385	Transportation Economics and Policy		related	Cost structures and service capabilities of the major modes of transportation. History and effects of regulatory policies of carriers and shippers.
LOGT 3389	Transportation law		related	Regulatory and procedural requirements pertaining to domestic and international freight transportation.
LOGT 4375	Global Supply chain	focused		Relationships among international trade specialists, global distribution channels, and governments using international documentation, terms of trade, financial, and legal resources.
LOGT 4387	Financial Evaluation for supply chain management	focused		Identification of costs and financial risk associated with supply chain structures and operations to optimize business value.
6316	Global Supply Chain Operation	focused		Supply chain operations in multinational business using situational analysis, legal issue considerations, and analysis of supply chain, transportation, and functional implications.
6318	Supply Chain Strategies	focused		Understanding the role of strategic planning to optimize supply chain activities. Planning methods, implementation techniques, process factors, outcome interpretation, and other activities necessary to achieve optimal results.

Department of  
Mechanical  
Technology  
(MECT)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
MECT 4328	Fundamentals of Pipeline Design		related	Pipeline mechanical design using the limit-state based strength method; flow assurance and material selection; pipeline stability, corrosion, and construction; inspection, monitoring, and maintenance of pipelines.
MECT 4341	Materials Selection and Management		related	Material selection as part of the design process; material properties, process and process selection, hybrid materials, and case studies.
6340	Materials Selection and Management		related	Material selection as a part of the design process. Material properties. Process and process selection. Hybrid materials. Case studies.

Department of  
Surveying  
Engineering  
Technology  
(SURY)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
SURY 2371	Global Positioning System	focused		Introduction to the Global Positioning System in surveying and mapping.
SURY 2372	Geographic Information Systems	focused		Geographic information systems in surveying and mapping.

Department of  
Technology (TECH)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
TECH 1313	Impact of Modern Technology on society		related	Impact of modern technology on ethical, legal, moral, cultural and social behavior standards of society.
TECH 3300	Strategic Foresight	focused		Perspectives and techniques for anticipating and influencing the long-term future. Review of macro trends affecting the future.
TECH 4310	Future of Energy and the Environment	focused		Social patterns that will drive alternative energy and environmental conditions in the future.
TECH 6371	World Futures	focused		A review of global trends shaping the future, including the most important demographic, environmental, technological, economic, political, and cultural changes.

Department of Technology Leadership and Supervision (TELS)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
TELS 3345	Human Resources in Technology	focused		Functions of personnel administration in human resource development, employee-supervisor relationships, and training programs.
TELS 3346	Wage and Salary Administration		related	Concepts, principles, procedures, processes, and programs related to the design of an effective system of compensation.
TELS 3372	Communicating Science, Engineering, and Technology Issues and Trends Within the Global Workplace	focused		Analysis of issues and trends in science, engineering, and technology to develop effective communication in the global workforce. Focus on oral and written communications, critical thinking, and research skills using computer-driven technologies.
TELS 4348	Supervisor - Employee Relationships		related	Supervisor - employee relationships that affect the role of the supervisor in the industrial setting
TELS 4350	Industrial and Environmental Safety	focused		Concepts and principles dealing with problems, methods, and solutions in managing and developing effective industrial and environmental safety programs.

Department of Training and Development (TRDE)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
TRDE 3350	Global Human Resource Development	focused		National and international trends and initiatives regarding human resource development with a focus on the influence and impact of the diverse global workforce.
TRDE 4301	Global Leadership in training and Development		related	Analysis of models of change management, knowledge management, and benchmarking as they apply to performance improvement.

Department of Human Resources Development (HRD)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
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6300	Quantitative and Statistical Methods for Human Resources Development	related	A survey of statistical and quantitative methods for data analysis applied to human resources development.
6301	Global Leadership in Training Assessment and Evaluation in Human Resources Development	related	Analysis of models of change management, knowledge management and benchmarking as they apply to performance improvement.
6303	Research in Human Resources Development	related	Analysis techniques employed in conducting program and instructional assessment in the context of return on investment
6304	Human Resources Development Foundations in Human Resources Development	related	Examination and application of research models utilized in conducting research in human resources development.
6350	Human Resources Development	related	Alternative supporting theories and philosophies that provide perspective for human resources development.

Department of Technology Project Management (TFPM)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
6304	Contemporary Quality Assessment in Project Management		related	Methods for conducting quality assessment in project management projects in production and service operations; concepts, methodologies, and statistical analysis tools of quality improvement, including quality theory, standards, design, control, and assurance.

**College of Natural Sciences & Mathematics**

Department of Biology (BIOL)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
BIOL 3345	Plant Physiology	focused		Respiration, photosynthesis, nutrition, transport, and development of flowering plants.
BIOL 4206	Ecology and evolution laboratory	focused		Field and laboratory exercises illustrating concepts in evolution, ecology, and animal behavior.
BIOL 4365	Applied Evolution	focused		Applications of evolutionary principles to everyday problems including public health, food production, forensics, and conservation.
BIOL 4368	Ecology	focused		Current concepts of the interrelationships between organisms and the environment.
6205	Conservation Biology	focused		Advanced treatment of important areas of conservation biology.
6221	Selection Experiments: Past, Present, and Future	focused		Ecological and evolutionary problems analyzed using selection-based approaches.
6357	Community Ecology		related	Current principles and theories regarding the structure and dynamics of communities, including concepts of , competition, diversity, and stability.

Department of  
Chemistry (CHEM)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
CHEM 1302	General Organic Chemistry	focused		Chemistry of the main classes of organic compounds with emphasis placed on their importance in health, environment, and society.

Department of  
Environmental  
Science (ENVS)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
ENVS 3301	Data analysis in Environmental Science	focused		Basic techniques of data analysis relevant to environmental sciences: Examples drawn from data collection and analysis in environmental sciences.
ENVS 4301	Environmental Science and Public Policy	focused		A critical look at environmental policy and decision making in the 21st century. Environmental and energy policy; environmental policy as an international and strategic security issue; environment and fisheries and agriculture; environmental policy and extreme weather events on the Gulf Coast; environmental policy and the "quality of life "
ENVS 4302	Legislative and Regulatory Aspects in Environmental Science	focused		The "Clean Air Act" and its history and implications for Houston and the Gulf Coast; air and water regulatory processes in the Texas Legislature; the history and future of enforcement of current regulations in Houston and Texas including case studies from local industry; the role of nongovernment organizations in environmental science
ENVS 4351	Environmental Mathematics and Differential Equations	focused		Mathematics for environmental problems: vector calculus, tensor operations, optimization, decision analysis, and ordinary and partial differential equations from application areas such as environmental modeling and management.
ENVS 4352	Environmental Fluid Dynamics	focused		Transport and flow models for air and water, surface and subsurface environmental studies; equations of motion, energy principles, and similitudes; dispersion and diffusion in the environment; chemical reactions in environmental flows;

Department of  
Geology (GEOL)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
GEOL 1302	Introduction to Global Climate change	focused		Examines how past climate records and models provide a better understanding of possible future climate changes. Greenhouse gases, solar output, Earth's orbit, and anthropogenic effects.
GEOL 1330	Physical Geology	focused		Principles of geology; emphasis on surface and internal processes of the earth.
GEOL 1340	Introduction to Earth's System	focused		Earth's dynamic systems emphasizing the interactions among the atmosphere, hydrosphere and lithosphere. Includes the processes by which the earth was formed and continues to be modified as well as how humans affect and are affected by those processes.
GEOL 1350	Introduction to Meteorology	focused		Basic concepts and principles of meteorological processes including clouds and precipitation, local and global circulation, air masses and fronts, and severe weather systems.
GEOL 1376	Historical Geology	focused		Geologic history of the earth; introduction to the uses of geological principles to interpret earth history.
GEOL 2179	Atmosphere Instrumentation	focused		Principles and practice of instrumental operation for acquisition and analysis of atmospheric data.
GEOL 3178	Laboratory Weather Information	focused		Use of computers to obtain weather information and to make weather forecasts.

GEOL 3325	Rocks and Minerals	focused		Minerals and megascopic petrography of common rocks. Classification, identification, description and interpretation of rocks in hand specimen and in the field.
GEOL 3331	Environmental Geology	focused		Geosciences related aspects of the inter-action between people and the physical environment, including 1) philosophy and fundamental principles, 2) hazardous earth processes, 3) human interaction with the environment, 4) minerals, energy and environment, and 5) global change, land use planning, and decision making.
GEOL 3332	Geology of U.S. National Parks and Monuments	focused		Geologic evolution of North America and its landscape as illustrated by selected national parks and monuments of the United States.
GEOL 3333	Earth Resources	focused		Mineral and energy resources of the planet Earth; their origin and discovery. Environmental impact of their exploitation; future prospects.
GEOL 3334	Earthquakes		related	Causes of earthquakes; questions of earthquake prediction, earthquake hazards, and social policy development associated with land use planning and building design.
GEOL 3336	Water in Environment		related	How water affects us and our environment as it moves through the hydrologic cycle. Topics include the role of water in landslides, rivers and flooding, pollution of our water supply, water quality, water as an energy resource, wetlands, and coastal erosion.
GEOL 3338	Environment Hydrology		related	Principles of groundwater and surface water flow and interaction with the environment: water quality and pollution.
GEOL 3342	Introduction to Air Pollution	focused		Structure of the atmosphere, anthropogenic and natural emissions of pollutant precursors, meteorological influences on pollutant transport and diffusion, chemical transformations, and health effects of pollution
GEOL 3345	Structural Geology		related	Properties of earth minerals and their behavior in stress fields; description, classification, and interpretation of geologic structures.
GEOL 3365	Exploring the Planets		related	Survey of the nature and evolution of the solid bodies in the solar system: the inner planets, including earth and its moon, the outer planets and their moons, meteorites, asteroids and comets.
GEOL 3377	Oceanography		related	Introduction to the world's oceans and oceanic processes.
GEOL 3378	Principles of Atmospheric Science	focused		Principles of physics and dynamics of atmosphere: Local, meso, and synoptic scale weather and global general circulation.
GEOL 3382	Atmospheric Chemistry	focused		Emission sources and chemical transformations associated with urban, regional and global scale air pollution, including gas phase and liquid phase reactions, nucleation processes, particulates, and acid deposition.
GEOL 3383	Remote Sensing		related	Principles of remote sensing, data collection, digital image processing, and applications in geologic, environmental, and land use studies.
GEOL 4340	The Geological study of the Earth		related	Application of geophysical data to the study of various aspects of the earth, including its internal composition, large-scale processes such as plate tectonics, and the distribution of important mineral and energy resources.
GEOL 4350	Geomorphology		related	Processes and resulting landforms that shape the landscape, including the role of climate and tectonics in affecting evolution of landscapes.
GEOL 4366	Groundwater modeling	focused		Theory of mass transport and numerical solutions used in the simulation of groundwater flow and transport applied to hydrogeological and environmental problems.
GEOL 4378	Introduction to Seismic Prospecting		related	Acquisition, processing, reduction, and interpretation of seismic reflection and refraction data as applied to oil and gas exploration.
GEOL 4379	Groundwater and Engineering Geophysics		related	Methods of characterizing shallow, subsurface conditions, including the influence of fluids on the physical properties of near-surface materials, high-resolution seismic and gravity methods.

GEOL 4382	Introduction to Petroleum Geology		related		Fundamentals of petroleum geology; source rock reservoir, and trap studies. Practical exploration methods such as subsurface stratigraphy and mapping.
GEOL 4383	Introduction to Well Logging		related		Introduction to well logging techniques, emphasizing geologic applications
6332	Air Pollution Meteorology	focused			Meteorological factors influencing air quality. Atmospheric dispersion and characteristics, land use and topographic effect, local circulations, effects of cloud and precipitation, long range transport, exchange between troposphere and stratosphere.
6334	Air Pollution Chemistry and Physics	focused			Emission sources and chemical transformations of urban, regional, and global scale air pollution including ozone, particulates, and acids deposition.
6335	Atmospheric Numerical Modeling	focused			Numeric modeling techniques used in atmospheric sciences including synoptic and mesoscale numerical weather forecasting, global climate modeling, and air pollution modeling.
6337	Atmospheric Physics	focused			Physical principles in atmospheric sciences, including thermodynamics, radiative transfer, cloud physics and wave dynamics.
6338	Paleoclimate and Global Change		related		Natural and anthropogenic global climate change, paleoclimates and paleogeography, evolution of the atmosphere, greenhouse effect, ozone depletion, ocean-atmosphere coupling, solar activity, Milankovitch cycles, effects of global change on agriculture, water resources and energy use.
6341	Geochemistry	focused			Principles of geochemistry, mineral-water stability relationships, isotope geochemistry, phase equilibria, and trace elements in igneous rocks.
6343	Geochemistry of Natural Waters		related		A laboratory- and field-oriented course designed to teach chemical and isotopic analytical techniques.
6344	Stable Isotope Geochemistry Advanced	focused			The application of stable isotope techniques to earth, ocean, and atmospheric sciences.
6350	Structural Geology	related			Analysis of geologic structures using surface and subsurface data.
6366	Hydrogeology	related			Interdisciplinary study of groundwater, emphasizing the geologic aspects of groundwater flow and chemistry.
6370	Integrated Biogeochemical Studies	focused			Natural biochemical cycles of relevant atmospheric species; interactions among biosphere, hydrosphere, lithosphere, and atmosphere; impact on ecosystems/human health.
6371	Isotope Geochemistry	focused			Fundamental concepts of geochronology and stable isotope fractionation and their relevance to tectonics, stratigraphy, climate, and meteorology will be discussed.
6372	Petroleum Geochemistry	focused			Geological and geochemical constraints on petroleum generation and accumulation. Concepts and technology of petroleum geochemistry and their application in petroleum exploration, exploitation and production.
6373	Petroleum Systems Analysis		related		Modern quantitative multi-disciplinary procedures for objective evaluation of petroleum potential of basins and exploration opportunities on the basis of statistical probabilities of hydrocarbon charge, reservoir, trap, and seal.
6381	Petroleum Geology	focused			Fundamentals of petroleum geology; source rock, reservoir, and trap studies; well log and seismic interpretation, petroleum geochemistry, and mapping.
6389	Geographic Information Systems for Geologists	focused			Use of Geographic Information Systems (GIS, ArcInfo, Spatial Analyst, 3-D Spatial Analyst) in geology, geophysics, geohazards, hydrology, environmental geosciences, petroleum geology and geophysics.

*Department of  
Physics (PHYS)*

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
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PHYS 1307	Physics of Energy and climate in the 21st century	focused	Physics principles of mechanics, thermodynamics, electricity, and magnetism as they relate to the problems of energy and climate in the 21st century.
PHYS 3378	Introduction to Atmospheric Science	focused	The earth's atmosphere with emphasis on the properties of air, the structure of the atmosphere, the development of storms, and the fundamentals of global climate patterns. Use of weather maps and diagrams will be emphasized.
7308	Space and Atmospheric Physics	focused	Physics of plasmas in space; earth's magnetosphere, planetary magnetospheres, and solar wind magnetosphere interactions.

**College of Liberal Arts and Social Science**

Department of Anthropology (ANTH)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
ANTH 2305	World Archaeology	focused		Current data and hypotheses concerning cultural evolution in various geographical areas around the world.
ANTH 3333	Economic Anthropology	focused		Economics, including industrialization, in peasant and aboriginal population groups.
ANTH 3341	Cultural Ecology	focused		A survey of the method and theory involved in the study of the relationship of culture and environment, stressing long-term evolutionary change within cultural systems.
ANTH 3342	Food and Culture	focused		Role and importance of food in different cultures: nutrition, social use of food, and symbolic significance.
ANTH 3343	People and Environment	focused		Anthropological approaches to the relationships between peoples and their physical environments; cross-cultural issues concerning environmental change and adaptation.
ANTH 3360	Human Variation	focused		Survey of human biological diversity arising from genetic evolution and responses to diverse environmental conditions.
ANTH 4353	Biocultural Adaptation	focused		Mechanisms of human adaptability integrating findings from ecology, physiology, social and cultural anthropology and geography.
6314	Environment, Culture and Public Policy	focused		Social impacts of environmental change; cultural issues raised in environmental policy.
6341	Cultural Ecology	focused		Exploration of the relationship of human cultural behavior to the natural environment, with both ethnographic and archaeological samples.
6342	Food and Culture	focused		The relationship of food to humans through its biological, social, economic, political, and symbolic roles.

Department of Art (ART)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
6320	Environmental Design Studio	focused		
7320	Environmental Design Studio	focused		

Department of Communication (COMM)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
COMM 3368	Principles of Public Relation		related	Public relations theories and techniques in business, government, and the social services.

6324	Human Relationships and Communication in Organizations	related	Analysis of communication behaviors and activities in developmental and maintenance processes of supervisory, mentoring, peer, romantic, and customer relationships in organizations.
6330	Interpersonal Communication	related	Theory and research relating to communication within established interpersonal relationships; such as friends, spouses, and coworkers.
6331	Interpersonal Conflict	related	A study of communication that is characteristic of conflict and conflict resolution in interpersonal relationships.
6370	Public Relations Management	related	Examination of staffing, planning, budgeting, and campaign management requirements in corporate, association, union, and non-profit public relations.
6371	Public Relations Theory	related	Comparative analysis of public relations theories and research.
6372	Issues Management	related	Theories, research and practices to change corporate images and to adjust relationships between companies and stockholders in a public policy environment.
6373	Public Relations Ethics and Philosophy	related	Discussion of moral philosophy and application to public relations and business communication for ethical decision making and analysis.
6374	Investor Relations	related	Study of the informational and persuasive theories, requirements, and strategies necessary for attracting and informing investors.

Department of Economics (ECON)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
ECON 3301	Economics and the Social Order	focused		Cultural, social, and political dimensions of economic activity and the impact of economic change on the social order.
ECON 3340	Comparative Economic Systems		related	The role and impacts of alternative allocation systems, including markets, socialization and central planning. Structure and performance of historical and contemporary economic systems, with implications for the emerging world economy.
ECON 3351	Economics of Development	focused		Nature, causes and possible solutions to problems in underdeveloped economies. Analysis of economic, political and human implications of economic growth, including the influence of the international aid community and the consequences of world trade
ECON 3353	Economic Development of Africa	focused		Discussion issues include economic growth, growth and the environment, the role of trade and foreign investment and the accompanying political and social changes.
ECON 3355	Economic Development of Asia	focused		Economic growth, environment, income disparities, role of trade and foreign investment and related political and social changes.
ECON 3358	Economic Development of Latin America		related	Dependence of Latin American countries on natural resources and agricultural products, import substitution industrialization, debt and financial crises, subsequent adjustments and structural reforms.
ECON 3363	Environmental Economics	focused		Analyses of environmental quality and environmental regulation.
ECON 3365	Labor Economics	focused		Labor market effects of minimum wage laws, mandatory employee benefits, technological change, international trade and immigration. Effects of income replacement programs, rise in female labor supply, rise in income inequality, decline in manufacturing and the decline of unions
ECON 3385	Economics of Energy		related	National and international energy markets in various forms, including oil, natural gas and alternative energy sources.

ECON 4335	Economic Growth Theory	focused			Theory and empirics of economic growth with emphasis on international comparisons of performance of income and productivity. Technology, population dynamics, government policy, culture, income inequality, international trade, democracy, and the rule of law.
ECON 4370	International Trade	focused			Causes of international trade and its effect on national economies. Consequences of trade barriers and trade policies in different economic environments, including reaction to national monopolistic practices. International transmission of investment, labor and technology.
ECON 4391	Economics and the real world	focused			Recent topics include the age of limits, global warming, government land use control, gun control, and the economics of crime.
6355	Economic Development of Asia	related			Economic and social problems of raising standards of living in Asia. Discussion issues include economic growth, growth and the environment, income disparities, the role of trade and foreign investment, and the accompanying political and social changes.
6365	Economics of Wages and Employment	related			Determination of wages, terms, and volume of employment, and relation of trade unionism to the economy, with emphasis on theoretical explanations.
6368	International Economics	focused			International trade and capital flows, with a focus on transition countries and emerging markets.
6373	Development and Labor	focused			Issues in economic development pertaining to both developing and transition economies.
6374	Transportation Economics	related			Traditional microeconomic approach to transportation economics including new developments in this field.
7350	Economic Growth and International Development	focused			This course presents current work on economic growth and international development, focusing on empirical and quantitative approaches. It will cover a wide range of topics such as development accounting, world income distribution, financial aspects of growth and income determination in open economies, international and regional capital flows, macroeconomic policy, capital market integration, current issues in economic and monetary unions and facts of globalization.
7387	Economic Analysis of Urban Areas	related			Markets for housing and sites, determinants of land use patterns. Topics include demand, rent and density gradients, racial discrimination, land use regulation, transportation access.
7396	Topics in Economic Development	focused			The development of world economy; emphasizing preconditions of progress, changes in economic structure, the role of planning, and the problems of underdeveloped economies.
8300	Advanced Seminar in Current Economic Research	focused			Students are required to present current research paper in seminar environment.
8396	International Trade	related			Causes and consequences of international trade, theories and comparative advantage, theory and measurement of tariffs, capital movements, and multinational corporations.

Department of English (ENGL)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
ENGL 2322	Literature and Nature	focused		Literary explorations of the state of nature, its consequences for human life, and the impact of human beings on the natural environment.

Department of Geography (GEOG)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
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	GEOG 1300	Element of Physical Geography	focused		Analysis of the physical processes of the earth's surface and their interrelationships, emphasizing continental drift, landforms, weather, climate, vegetation, and soils
	GEOG 1301	Human use of Earth		related	An analysis of humankind's variable imprint upon the earth's surface resulting from human activities related to land and resource utilization, technology, and environmental attitudes.
	GEOG 2340	World Realms		related	Examination of the interactions between people, cultures, and natural surroundings.
<i>Department of History (HIST)</i>					
	<b>Course Number</b>	<b>Course Name</b>	<b>Sustainability focused</b>	<b>Sustainability related</b>	<b>Remarks</b>
	HIST 3346	Atomic Power in American History	focused		The course focuses on the military and peaceful uses of atomic power to explore the scientific, environmental, diplomatic, institutional, social, and cultural history of the U.S. after 1939.
	HIST 3368	World Environmental History to 1800	focused		Human interactions with the environment from the rise of complex societies to 1800. Comparative themes: inventions of agriculture; human, plant, and animal migrations; global commodity trades; religion and nature.
	HIST 4322	Environment in US history		related	Changing human relations with their physical environments and implications for society from colonization through industrialization to modern environmentalism.
	6389	American Urban History	focused		Study of environmental, political, economic, technological, and social factors in influencing the growth and development of American cities.
<i>Department of Latin American Studies (LAST)</i>					
	LAST 3300	Latin America: Hemispheric and Global Perspectives		related	An interdisciplinary introduction to the history, cultures, and languages of Latin America. Topics include the region's indigenous past, religious traditions, linguistic realities, economic development, gender relations, political dynamics, popular culture, and social forces.
<i>Department of Philosophy (PHIL)</i>					
	<b>Course Number</b>	<b>Course Name</b>	<b>Sustainability focused</b>	<b>Sustainability related</b>	<b>Remarks</b>
	PHIL 3349	Philosophy of the Social Sciences		related	Philosophical issues arising in such social sciences as psychology, archaeology, anthropology, and economics. May be repeated for credit with approval of department chair when topics vary.
	PHIL 3375	Law, Society and Morality	focused		Topics include the nature, function, and moral evaluation of law and legal systems.
<i>Department of Political Science (POLS)</i>					
	<b>Course Number</b>	<b>Course Name</b>	<b>Sustainability focused</b>	<b>Sustainability related</b>	<b>Remarks</b>
	POLS 3313	Introduction to International Relations	focused		Approaches to international politics, power, the nation-state and nationalism, diplomacy, causes of conflict, sources of interdependence, international law and organization.
	POLS 3314	Introduction to Public Administration	focused		The political environment of public administration and its basic concepts, structures, and processes in the United States.
	6308	Political Economy Seminar in Science,		related	Examines the intersections between economics and politics.
	6318	Environmental, and Energy Policy		related	Role of science and technology in policy processes, including risk analysis, public funding, and regulation of R&D; role of science in a democracy; and development of natural resources.

6361	Seminar in Urban Politics	focused		Politics in American cities. How city government copes with social and economic problems, the complexity of urbanization, and other government agencies.
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Department of Psychology (PSYC)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
PSYC 2344	Cultural Psychology	focused		Relationship between ethnicity, socialization, personality, behavior issues related to current race relations.
PSYC 2350	Child Development	focused		Intellectual and social development in children and the factors that affect this process.
PSYC 4371	Organizational Psychology	focused		Theory and research on work motivation, leadership, and related aspects of group behavior in organizations.
PSYC 4373	Personnel Psychology		related	Psychological knowledge and methods applied to personnel problems of selection and training, including job behavior description and evaluation, assessment strategies, employee development, and fair employment concerns.
PSYC 4376	Work Motivation		related	Theories and paradigms of motivation in the work place. Research and applications of motivational theories used to describe employee behaviors.
7366	Work Motivation	focused		Factors and processes influencing effort, intentions, performance, other job behaviors.
8320	Field Work in Organizational Development		related	Best practices in applying organizational behavior, human resources, and organization development research to organizational problems; content varies in order to leverage emergent field opportunities
8323	Organizational Climate and Culture	focused		Review of the history, evolution and relationships among such concepts as organizational culture and climate and psychological climate. The emphasis is on research and applied issues related to these concepts and their role in behavior, organizational performance and organizational development and change.
8324	Job Attitudes	focused		concepts as job satisfaction, job involvement and organizational commitment.

Department of Sociology (SOC)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
SOC 1300	Introduction to Sociology		related	Major theories, methods; and findings pertaining to the study of societies, institutions, organizations, and groups. The interrelationships of society, culture, and personality.
SOC 2310	Social Problems		related	Analysis of major social problems including crime, drug abuse, inequality, racism, and unemployment, among others. Examination of proposed solutions and potential consequences for policy.
SOC 3318	Introduction to Social Work		related	The United States social welfare system contrasted with other national systems with an overview of the fields and specialties in social work practice.
SOC 3357	Urban Sociology	focused		The nature, conditions, and consequences of urbanization; growth and structure of metropolitan regions; social and demographic characteristics of urban populations.
SOC 3382	Sociology of Drug Use and Recovery		related	Institutional processes shaping the definitions of and responses to substance abuse. Gender, racial, and economic influences on substance use and recovery.
6357	Seminar in Urban Sociology	focused		The study of urbanism and urbanization, including modern metropolitan problems, and structural, ecological, and social psychological theories of the urban phenomenon.

Department of Theatre (THEA)

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
THEA 1102	Fundamentals of Fundraising	focused	related	Theory and practice of donor relations, special events, and individual giving.

THEA 3371	History of Architecture, Interiors, and Decorative Arts	related	Survey of the styles of architecture, decor, and furniture from antiquity to the present, with emphasis on applications in theatrical design.
THEA 3372	Digital Design Techniques	related	Study and use of software, tools, and techniques to create, capture, and manipulate images for scenic, lighting, and costume designers.
THEA 3374	Intelligent Lighting	related	Study and use of intelligent lighting fixtures and control console programming.
THEA 3387	Lighting Design I	related	Examination of the principles, theories, equipment, and technology utilized in lighting for the stage; Color, light sources, control systems, and script analysis.
THEA 3389	Lighting Design II	related	Implementation of lighting ideas into actual designs, including light plots, schedule, the use of equipment and the exploration of lighting styles.
6335	Scenery and Lighting Design	related	Creative function of the scene and lighting designer in preparing visual elements of theatrical production.
6336	Technical Production	related	Visual elements (scenic, costume, and lighting design) in a production as approached by the designer, director, and actor.
6352	Advanced Lighting Design	related	Implementation of lighting ideas, light plots, use of equipment and the exploration of lighting styles.
6355	Lighting Design	related	Stage lighting fundamentals, theories of light and color, equipment and control, instruments and switchboards.

**College of LAW**

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
5176:6276:6376:5476	Environmental, Energy, and Policy Law Journal		related	An academic publication of the Law Center in which the law students, under the direction of the faculty, edit articles of distinguished faculty and scholars around the country.
5207:5337	Clean Air Act	focused		Legal requirements for air pollution control under the federal Clean Air Act, with emphasis on the 1990 amendments and state and local approaches including an examination of the Texas Clean Air Act.
5216	Clean Water Act	focused		Focuses on the Federal Clean Water Act and its administrative implementation
5225	Hazardous Waste Law	focused		This course will focus on the Resource Conservation and Recovery Act.
5258	Food and Drug Law	focused		Study of government's attempts to protect the public health and individual welfare in the development and marketing of foods, etc. Focuses on the federal Food, Drug, and Cosmetic Act
5307	Interagency Environmental Cooperation	focused		Forum for various local, state, and federal environmental agency personnel about real issues in coordinating environmental requirements between agencies.
5390	Environmental Law	focused		Environmental law, with emphasis on legal regulation and control of activities affecting the land, sea, and air environment.
6226	Advanced Oil & Gas Contracting	focused		Focuses on contracts used in domestic oil and gas exploration and production operations, including oil and gas leases
6227:5355	Oil and Gas		related	Covers the basic property, contract, and regulatory framework for oil and gas production in Texas. Explores common law property concepts; the provisions of an oil and gas lease negotiated between a mineral interest owner and an oil company as lessee; and also examines Railroad Commission regulation of drilling, production, pooling, and unitization for the efficient and fair development of oil and gas.
6336	International Environmental Law		related	The practical aspects of the various systems as they compare to the United States environmental law system.

6341	Water Law		related	Explores the way rights to use are allocated in the various jurisdictions of the United States, and examines acquisition and exercise of water rights, statutory procedures of acquisition, comparison of riparian rights and appropriation rights.
6343	Energy, Law & Policy	focused		A basic overview and background to the important energy issues of the day, especially natural gas and electricity deregulation
6362	Natural Resources Law		related	History, jurisdiction, and conflicts of the land management agencies under the various natural resources statutes.
7211	Environmental Law and Land Use	focused		Examines how government regulates private and public lands for the environment's sake. It covers traditional concepts of land control and controls tailored to the land's specific characteristics,
7306	Natural Resources Law	focused		preservation of natural resources on federal land, including wildlife, wilderness, refuges rivers, national parks, minerals, and timber.
7333	Energy, Law and Policy	focused		Students explore in depth an energy-related topic of their choice, ranging from problems (and proposed solutions) for nuclear power development, renewable, and offshore oil and gas, LNG sitting, state-federal conflicts in energy development, FERC jurisdiction and restructuring orders for gas and electricity, changes in energy laws in other countries,
7352	International Environmental Law	focused		The foundations for legal response to current global environmental challenges and the exploration of the leading issues. Issues of current (or historical) interest and an analysis of how international laws and institutions may help resolve them.

**College of Social Work**

Course Number	Course Name	Sustainability focused	Sustainability related	Remarks
SOCW 7397	COMMUNITY DEVELOPMENT & the Green Collar Economy	focused		This upper-division, service learning courses focuses on merging community-identified socio-economic concerns with environmentally conscious solutions.  <a href="http://www.uh.edu/af/greenUH/news/CommunityDevelopment.pdf">http://www.uh.edu/af/greenUH/news/CommunityDevelopment.pdf</a>