

GLOBAL ENERGY MANAGEMENT COURSE DESCRIPTIONS

CORE COURSES (STUDENTS MUST TAKE ALL 9)

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| GEMM 6000 | 21ST CENTURY GLOBAL ENERGY ISSUES AND REALITIES |
| | The course introduces the global energy industry's past, present, and future. History and current issues faced in regions such as the Atlantic Basin; former Soviet Union; East of Suez; and North and South America are covered. World production centers and markets are discussed as well as relevant energy security, scenario planning, and risk management. Regulation, deregulation, and environmental concerns in these regions are also introduced. In addition, students learn the geographic distribution of energy resources worldwide, along with the political and governmental systems associated with those resources. |
| GEMM 6100 | GLOBAL ENERGY ECONOMICS |
| | Course includes energy geo-economics with an introduction to managerial tools of the trade. Topics include world energy markets - demand and supply, refining and marketing, energy forecasts, oil and gas transportation, and National Oil Companies vs. International Oil Companies. An introduction to environmental economics helps students connect the energy industry to sustainable work practices. |
| GEMM 6200 | ENVIRONMENTAL, REGULATORY, LEGAL AND POLITICAL ENVIRONMENT IN THE ENERGY INDUSTRY |
| | Explores the current political situation regarding the energy industry and its environmental impact, both in the short term and long term. The course deals with environmental and energy laws and regulations from a regional to international level. Topics include climate change, pollution, solid wastes, and the conservation of natural resources. Additionally, students are introduced to operating agreements and financial arrangements on domestic and foreign lands, confidentiality, and bidding agreements. |
| GEMM 6300 | TECHNICAL ASPECTS OF ENERGY SCIENCE |
| | This course is designed to familiarize students with the science behind energy sources. The course focuses on both hydrocarbon and renewable/alternative sources of energy and examines what challenges and opportunities exist for the establishment of those energy sources as viable industries. |
| GEMM 6400 | LEADERSHIP & DECISION MAKING IN THE GLOBAL ENERGY ENVIRONMENT |
| | This course will help students understand what leaders do, how they think and adapt to an ever-changing strategic and operational landscape. Students will learn how leaders deliver results through others by engaging stakeholders and fostering organizational practices which motivate people and teams and foster a values-driven, ethical culture. This course emphasizes the practical application of leadership theories; students are encouraged to apply and integrate the output of various individual and organizational assessment tools. |

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| GEMM 6500 | MANAGERIAL ACCOUNTING IN THE GLOBAL MARKETS | |
| | <p>This course builds a basic understanding of how information regarding a firm's resources and obligations is conveyed to decision-makers both outside and within the firm. Emphasis is placed on the analysis of the income statement, balance sheet, and statement of cash flows, which allows students to interpret historical financial accounting information. Specific coverage includes cost-volume-profit analysis, variances from forecasts, joint interest accounting, and the measurement of divisional performance.</p> | |
| GEMM 6600 | INTRODUCTION TO FINANCIAL MANAGEMENT IN THE GLOBAL ENERGY MARKET | |
| | <p>This course provides an integrated conceptual framework for thinking about how firms should make financial decisions, and the basic tools and skills necessary to participate in financial decision-making. Upon successful completion of course material, students can describe and address the two basic problems for the financial manager: How does a firm identify the best possible uses of its funds? How does a firm identify the best possible sources for its funding needs? In order to address those problems, students learn several theories and tools necessary for evaluating alternative investment opportunities.</p> <p style="text-align: right;">Global Energy Economics</p> <p>These include:</p> <ul style="list-style-type: none"> • Discounted Cash Flow Analysis, and how it can be used to value debt and equity. • The Capital Asset Pricing Model and how it can be used to determine the proper discount rate for real investment valuation. <p>The Modigliani-Miller theorem, how it can be used to optimize the financial structure, and how the financial structure has implications for project valuation.</p> | |
| GEMM 6410 | STRATEGIC HUMAN CAPITAL MANAGEMENT IN THE GLOBAL ENERGY ENVIRONMENT | |
| | <p>This class explains why people are the most important energy asset. Students learn about the latest research in human resource theories, study various human resource models, and learn about ways to develop organizational effectiveness from the firm's human capital. Concepts and techniques on developing effective international teamwork, attracting and retaining talent, and using human resource processes such as performance management and development to drive engagement are also discussed.</p> | |
| GEMM 6450 | STRATEGIC MANAGEMENT FOR THE ENERGY INDUSTRY | CAPSTONE COURSE |
| | <p>This course will provide the students with the tools necessary to be an integral part of and ultimately lead the strategic planning processes in Global Energy Companies. It will also provide information about how to be an effective manager when it comes to implementing or supervising the implementation of strategic plans or strategic management initiatives. Additionally, as the capstone course, it will integrate the learnings from the other courses, as well as from across the energy industry, to provide opportunities to exercise and develop students' integration thinking and skills. This course will also give the student key tools for evaluating strategic initiatives within the company and as they affect the company's position in the marketplace. Regulation, deregulation, ethical, environmental, and governance concerns will also be introduced.</p> | |

ELECTIVE COURSES (STUDENTS MAY SELECT 3)

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| GEMM 6210 | ENERGY AND THE LAW: PROPERTY AND CONTRACTS |
| | <p>This elective focuses on the process of managing the use and development of land resources. The course examines the ways that private persons and companies make their own law through negotiating and entering into contracts, the creation and transfer of interests in real property and intellectual property, and the framework for land ownership and land use both in the United States and internationally.</p> |
| GEMM 6230 | POLITICAL RISK ANALYSIS AND STRATEGY |
| | <p>This course examines the public influence on energy business activities. Students explore the economics of political action and methods for evaluating how stakeholder groups interact to influence political outcomes. They learn to use these tools to develop strategies for stakeholder engagement and managing business risks associated with social decision-making. Methods introduced in this course are of interest to those responsible for managing risks and/or adapting plans to issues affecting a business through various political forums - legislative, regulatory, judicial, and 'the court of public opinion.</p> |
| GEMM 6420 | ENVIRONMENTAL, SOCIAL, GOVERNANCE (ESG) TRENDS IN ENERGY AND COMMODITIES |
| | <p>This course will introduce students to the fundamental concepts and terminology associated with ESG. The evolution of climate change and ESG will be reviewed in terms of policies and metrics. The critical need commodities (agricultural, energy, and minerals, and metals) are studied to support more realistic views and opinions on climate change and ESG. An overarching goal is that students completing the course will have a sound understanding of ESG related policies and standards, the measuring metrics, and the benefits and costs associated with potential future trends.</p> |
| GEMM 6430 | ORGANIZATIONAL BEHAVIOR IN THE ENERGY INDUSTRY |
| | <p>Intended for students responsible for leading and managing human assets inside the energy industry. Exposes students to fundamental principles of understanding human behavior and increases their competence in working across a wide variety of group settings. Proper management of the organization creates a sustainable competitive advantage, which is the product of understanding how to lead and manage employees, and build their enthusiasm for the organization.</p> |
| GEMM 6470 | ENERGY MARKETING & COMMUNICATIONS |
| | <p>This course emphasizes a holistic view of marketing within the energy industry. Marketing goods and services within the energy industry presents unique opportunities and challenges including differentiating true commodities; marketing services versus goods, distribution realities, and the game-changing impact of green energy from an image and competitive standpoint as well as the importance of brand and image management in the age of social media. To succeed, marketers within the energy industry must consider a broader viewpoint, integrating the traditional marketing elements of price, promotion, place, and product with elements comprising the customer experience and image. This course will also link the applicability of marketing theory and practice to use in non-marketing disciplines.</p> |

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| GEMM 6620 | ENERGY ASSET AND PRODUCTION MANAGEMENT |
| | This course covers the management of an organization's energy resources and facilities as well as broad coverage of project management processes. The course also focuses on managing the flow of information, materials, services, and money to maximize the efficiency of the capital expenditure and production process. |
| GEMM 6610 | ADVANCED FINANCIAL MANAGEMENT IN THE ENERGY INDUSTRY |
| | Managers in the energy industry with practical skills and knowledge need to have a superior understanding of how to apply those skills to attract and preserve capital as well as communicate with capital providers. This course is focused on understanding the costs and benefits of various forms of capital. Through examination of internal and external models managers will be able to assess alternative capital sources to achieve their strategic objectives. Also introduces effective investor communication techniques. |
| GEMM 6630 | PROJECT DEVELOPMENT, MANAGEMENT, AND LEADERSHIP IN RENEWABLE ENERGY |
| | This course will provide students with real-time insight into the world of renewable energy and storage. The instructor and guest lecturers are currently employed with industry leaders and will provide students with first-hand knowledge of project development from concept through operations. Students will be taken on a project's journey via a methodic overview of all project phases, markets, technologies, risk mitigation, and executive decision-making. Students will also be exposed to corporate-level leadership and decision-making of companies expanding or transitioning into renewables. |
| GEMM 6690 | SPECIAL TOPICS TRAVEL COURSES |
| | This elective course is a 1-2 credit course specially designed to provide international or domestic learning opportunities. The course will offer concentrated problem-solving experiences within the energy industry through travel to London, Washington, DC, and potentially other industry significant cities and regions. Learn through a combination of lectures by GEM instructor, guest lectures, field trips, and seminars with experts on each day's topics. |