

SCHOOL OF ENGINEERING

Department of Industrial and Mechanical Engineering

IM 254 SOLID MECHANICS

COURSE DESCRIPTION: Stress analysis of deformable bodies and mechanical elements; stress transformation; combined loading; failure modes; material failure theories; fracture and fatigue; deflections and instabilities; thick cylinders; curved beams; design of structural/mechanical members; design processes.

IM 306 PRINCIPLES OF THERMODYNAMICS

COURSE DESCRIPTION: Theory and application of energy methods in engineering; conservation of mass and energy; energy transfer by heat, work and mass; thermodynamic properties; analysis of open and closed systems; the second law of thermodynamics and entropy; gas, vapor and refrigeration cycles.

IM 308 DYNAMICS AND VIBRATIONS

COURSE DESCRIPTION: Application of Newtonian and energy methods to model dynamic systems (particles and rigid bodies) with ordinary differential equations; solution of models using analytical and numerical approaches; interpreting solutions; linear vibrations.

IM 309 DYNAMICS AND VIBRATIONS LABORATORY

COURSE DESCRIPTION: Application of Newtonian and energy methods to model dynamic systems (particles and rigid bodies) with ordinary differential equations; solution of models using analytical and numerical approaches; interpreting solutions; linear vibrations.

IM 373 FINITE ELEMENT ANALYSIS

COURSE DESCRIPTION: Introduction to basic theory and techniques; one- and two-dimensional formulations for solid mechanics applications; direct and general approaches; broader aspects for field problems; element equations, assembly and solution schemes; computer implementation, programming and projects; error sources and application consideration.

IM 389 MACHINE ELEMENTS

COURSE DESCRIPTION: Analysis for the design and manufacture of basic mechanical elements, and their role in the design of machines; application of finite element modeling. Three lecture hours a week for one semester.

IM 402 HEAT TRANSFER

COURSE DESCRIPTION: Heat transfer by conduction, convection and radiation: steady and transient conduction, forced and natural convection, and blackbody and gray body radiation; multi-mode heat transfer; boiling and condensation; heat exchangers.

IM 428 DESIGNS OF MECHANICAL COMPONENTS

COURSE DESCRIPTION: Design of machine elements, characteristics of prime movers, loads and power transmission elements as related to mechanical engineering design.

SCHOOL OF SCIENCES

Department of Actuarial Sciences, Physics, and Mathematics

MT 318 DIFFERENTIAL GEOMETRY

COURSE DESCRIPTION: An analysis, from an advanced perspective, of the basic concepts and methods of geometry, statistics, and probability, including representation and analysis of data; discrete probability, random events, and conditional probability; measurement; and geometry as approached through similarity and congruence, through coordinates, and through transformations. Problem solving is stressed.

MT 317 MODERN ALGEBRA II

COURSE DESCRIPTION: A study of groups, rings, and fields, including structure theory of finite groups, isomorphism theorems, polynomial rings, and principal ideal domains.

MT 320 GEOMETRICAL ALGEBRA AND ITS APPLICATIONS

COURSE DESCRIPTION: Axiom systems, transformational geometry, introduction to non-Euclidean geometries, and other topics in geometry; use of these ideas in teaching geometry.

SCHOOL OF SOCIAL SCIENCES

Department of Law

DE 390 INTERNATIONAL PUBLIC LAW I

COURSE DESCRIPTION: The course will teach students about legal systems and laws governing relations among states, and its expansion to non-state actors. The class will survey sources on international law, mechanisms and institutions in which international law is employed, and will then look at one or two substantive areas, focusing on human rights and use of force. Students will learn about how and why international law is created and how it is enforced both internationally and in the United States. Understanding how international law is enforced will require students to learn about, inter alia, the nature of international disputes, the subjects of international law, and the forums in which disputes are settled.

Department of International Relations and Political Science

RI 111 RESEARCH METHODS

COURSE DESCRIPTION: Introduction to the philosophy and practice of social science and to modes of research in major subfields of political science and international relations.

RI 115 MODERN POLITICAL THOUGHT

COURSE DESCRIPTION: Political thought from Machiavelli to Marx.

PO 340 INDIVIDUAL, COMMUNITY, AND STATE

COURSE DESCRIPTION: Explains the importance of the theoretical and conceptual foundations. Treats some important ethical problems that face the process of generation of policies, legislation and the relation between the states. It extends the knowledge on the way in which the key concepts learned in previous courses on political thought, can affect the practical problems of national and international politicians.

SCHOOL OF BUSINESS AND ECONOMY

NI31001 THE GLOBAL ENVIRONMENT OF BUSINESS

Course Description: This course is an introduction to the international business context and presents the most important topics and concepts in the field. International terms and theories are examined in relation to case studies, as well as the everyday world events that exert the greatest influence on business. The course prepares students to analyze and appreciate the differences in the cultural, economic, political, legal, competitive, physical environments of regions of the world.

NI34001 CROSS CULTURAL MANAGEMENT

Course Description: This course introduces the administrative and management process (planning, organization and human resource management) within a global context. It strongly emphasizes the cultural aspects of several regions in the world and their importance in the management of international business.

NI36301 INTERNATIONAL BUSINESS COMMUNICATIONS

Course Description:

This course includes theory of communication through written, verbal, and non-verbal means. The student applies theoretical knowledge via a series of workshops, practices, and expositions. Exercises are carried out within a business-like context and are relevant for today's international business needs. The course is taught in English.

NI38001 INTERNATIONAL LOGISTICS

Course Description: The course presents the overall field, major concepts, and function of logistics, including: international logistics, customer service, freight (packaging, packing, and trademark), international transportation, international documentation and contracts, and INCOTERMS.

NI38301 DOING BUSINESS IN ASIA

Course Description: This course will help the student to analyze and understand the business environment in Asian countries and to understand how the political socio-cultural and technological environment can influence business practices and Asian markets.

NI39001 INTERNATIONAL MARKETING

Course Description: This course centers upon the principal decisions marketing management encounters with respect to operations in a global context. In addition to strategies related to the 4 Ps, the course includes other areas of decision-making such as evaluation of the attractiveness of foreign markets, the pros and cons of adaptation and globalization, and strategy formulation. The course covers the environmental areas that affect marketing decisions around the globe. There is a strong emphasis upon activities related to exportation.

NI39101 ETHICS AND TRANSPARENCY IN BUSINESS: LATIN AMERICA AND THE WORLD

Course Description: This course familiarizes the student with the ethical nature of business and with social responsibility in the international environment, making him/her aware of the critical social issues that organizations will confront in the future. The course begins by introducing the student to moral reasoning and then provides numerous opportunities to apply ethical theory to contemporary management situations.

NI49101 INTERNATIONAL CORPORATE STRATEGY I

Course Description: The student will learn the main corporate strategy models both theoretically and practically. There will be group discussions, case studies and examples given.

NI4940 INTERNATIONAL BUSINESS STRATEGIES

Course Description: This course will develop the student's capacities as well as his/her strategic and intercultural knowledge so that the student can contribute effectively in international commercial contract negotiations between firms and in multicultural project teams.

NI49601 LATIN AMERICAN MARKETS

Course Description: The emerging markets of Latin America continue to receive more and more attention from international and global businesses, due to their high potential for development and growth potential. Nevertheless, great differences exist between emerging Latin American markets and those of industrialized nations. Therefore, businesses that desire to penetrate Latin American markets require alternative strategies for commercial success. This course compares and contrasts the most important differences between markets, including topics related to culture, society, infrastructure, economy, and political and legal systems, thereby creating a foundation on which to base decisions.