

**Courses offered in English  
University of Puerto Rico-Mayagüez**

**COLLEGE OF ENGINEERING**

<b>GENERAL ENGINEERING</b>				
<b>Course Code</b>	<b>Name</b>	<b>Professors</b>	<b>Prerequisites</b>	<b>Term</b>
INGE 3032	Engineering Mechanics Dynamics	Papadopoulos, C.	INGE 3031 and FISI 3161 or FISI 3171	FS/SS
INGE 3035	Engineering Mechanics	Rysz, Marek	MATE 3031 or MATE 3144 or MATE 3183 Co-Requisites: FISI3161 or FISI3171	FS/SS
INGE 3045	Materials Science for Electrical Engineers	Yang Li	QUIM 3002 or QUIM 3042 or QUIM 3132 or QUIM 3134 Co-Requisites: FISI 3162 or FISI 3172	FS/SS
INGE 4001	Engineering Materials	Uwakweh, Oswald	QUIM 3002 or QUIM 3042 or (QUIM 3132 and QUIM 3134) and (FISI 3161 or FISI 3171)	FS/SS
INGE 4998	Undergraduate Research	Yang Li	DIR. and (junior or senior student)	FS/SS
INGE 5016	Introduction to Materials Characterization	Yang Li Uwakweh, Oswald	INGE 4001 or INGE 3045 or INME 4107 or DIR.	Depend on demand
CIIM 6005	Fundamentals of Advanced Materials	Uwakweh, Oswald	Graduate course	Depend on demand

## CHEMICAL ENGINEERING

Course Code	Name	Professors	Prerequisites	Term
INQU 4001	Heat Transfer Operations	Dr. M. Bogere	INQU 4010 and INQU 4011	FS/SS
INQU 4008	Mathematical Analysis of Chemical Engineering	Dr. L. Sridhar	INQU 4005 and MATE 4009	FS/SS
INQU 4011	Chemical Engineering Thermodynamics	Dr. L. Sridhar	INQU 4005 and QUIM4041 and (MATE4009 or MATE3048)	FS/SS
INQU 4012	Chemical Engineering Thermodynamics II	Dr. M. Bogere	INQU 4011 and QUIM 4042	FS/SS
INQU 4027	Chemical Engineering Seminar	Dr. M. Bogere	INQU 4010	FS/SS
INQU 5015	Fundamental of Air Pollution	Dr. M. Bogere	INCI 4008 or DIR. Co-Requisite INQU 4002	Depend on demand (every 1 ½ year)
INQU 5018	Air Pollution Control	Dr. M. Bogere	INQU 4010 or INCI 4008 or DIR.	Depend on demand (every 1 ½ year)
INQU 5019	Industrial Waste Control	Dr. M. Bogere	INCI 4008 or DIR. Co-Requisite INQU 4002	Depend on demand (every 1 ½ year)

## CIVIL ENGINEERING

Course Code	Name	Professors	Prerequisites	Term
INCI 4011	Structural Steel Design	Dr. Ali Saffar	INCI 4021	Varies per term, please contact UPRM NSE coordinator
INCI 4012	Reinforced Concrete Design		INCI 4021 and INCI 4035	
INCI 4021	Structural Analysis I		INGE 4012 and INCI 4095	
INCI 4022	Structural Analysis II		INCI 4021	
INCI 4136	Applied Statistics For Civil Engineering		MATE 3063 or MATE 3185	
INCI 6017	Structural Mechanics I		NA	
INCI 6018	Finite Element Analysis of Structures (II)		DIR.	
INCI 4008	Introduction to Environmental Engineering		(INGE 4015 or INQU 4010 or INGE 4010) and (QUIM 3002 or QUIM 3042 or (QUIM 3132 and QUIM 3134)	Varies per term, please contact UPRM NSE coordinator

INCI 5017	Prestressed Concrete Structures	Dr. Sangchul Hwang	INCI 4012 or DIR. Co-Requisite: INCI 4022	
-----------	---------------------------------	--------------------	---	--

### ELECTRICAL AND COMPUTER ENGINEERING

Course Code	Name	Professors	Prerequisites	Term
INEL 3105	Electrical System Analysis	Hamed Parsiani	(MATE3032 or MATE3184) and INGE3016, Co-Requisites: (FISI3172 or FISI3162) and (MATE3063 or MATE3185)	FS/SS
INEL 4095	Signals And Systems	Vidya B	INEL4102 and MATE4009	FS/SS
INEL 4205	Logic Circuits	Hamed Parsiani	INGE3016	FS/SS
INEL 4301	Communications Theory I	Hamed Parsiani	INEL4102 and ININ4010	FS/SS
INEL 5046	Pattern Recognition	Vidya B	(INEL4095 or INEL4301) and (ININ4010 or ININ4011) or DIR.	FS

### MECHANICAL ENGINEERING

Course	Name	Professors	Prerequisite	Term
INME 3810	Creative Design II	Yi Jia	INGE 3011 or INGE 3809 or INME3809	FS/SS
INME 4005	Mechanism Design	David Dooner Yi Jia	INGE3032 and (INGE3017 or INME3810)	FS/SS
INME 4012	Design of Machine Elements II	David Dooner	INME4011 and (INME4007 or INME4107)	FS/SS
INME 4057	Engineering Design	David Dooner	INME4002 and INME4012 and INME4015 and (INME4007 or INME4107)	FS/SS
INME 6039	Vibrations	David Dooner Frederick Just	NA	SS

## SOFTWARE ENGINEERING

Course Code	Name	Professors	Prerequisites	Term
INSO4101/ICOM4009	Intro to Software Engineering	Dr. Marko Schutz	CIIC 4020 or ICOM 4035	FS/SS
INSO4115	Software Requirements	Dr. Marko Schutz	ICOM 4009 or INSO 4101	SS
INSO4116	Software Design	Dr. Marko Schutz	INSO 4115	FS
CIIC3075	Foundations of Computing	Dr. Marko Schutz	CIIC 3011 or INGE3016 and MATE 3031 (Co-Requisite)	FS/SS

## COLLEGE OF BUSINESS ADMINISTRATION

### BUSINESS

Course Code	Name	Professors	Prerequisites	Term
ADMI 3009	Introduction to Business, Management and Ethics	Dr. William Frey	NA	FS/SS

## COLLEGE OF AGRICULTURAL SCIENCES

### AGRICULTURAL AND ENVIRONMENTAL SYSTEMS

Course Code	Name	Professors	Prerequisites	Term
SAGA 4009	Mechanical Power In Agriculture	Sunil Mathanker	FISI3171 or FISI3151 or FISI3091	FS
SAGA 4015	Agricultural Machinery I	Sunil Mathanker	FISI3171 or FISI3151 or FISI3091	FS/SS

## COLLEGE OF ARTS AND SCIENCES

### GEOLOGY

Course Code	Name	Professors	Prerequisites	Term
GEOL 3025	Earth Sciences	Dr. James Joyce	NA	FS/SS
GEOL 3056	Crystal Chemistry and Geochemistry of Mineral Systems (only Geology students)	Dr. Thomas Hudgins	GEOL 3055	SS

GEOL 4017	Elementary Geomorphology	Dr. Kenneth S. Hughes	GEOL 3025 and GEOL 3047	SS
GEOL 4006	Elementary Structural Geology	Dr. Stephen Hughess	GEOL 3025	SS
GEOL 4045	Petrogenesis of Crystalline Rocks	Dr. Thomas Hudgins	GEOL 3056	FS
GEOL 3027	Geological Aspects of the Environmental Sciences	Dr. Thomas Hudgins	N/A	Depend on demand FS/SS
GEOL 4015	Geology for Engineers	Dr. James Joyce	N/A	FS/SS

### BIOLOGY

Course Code	Name	Professors	Prerequisites	Term
BIOL 3010 *course has lab in Spanish	Cell Physiology	John Michael Uscian	QUIM 3031 or (QUIM 3461 and QUIM 3462)	FS/SS
BIOL 3052 *course has lab in Spanish	General Biology II	Sean Locke Alex VanDam	BIOL 3051	SS
BIOL 3300 *course has lab in Spanish	Genetics	Dimuth Siritunga	BIOL3022 or BIOL3052 or BIOL3435 or BIOL4015 or CIBI3032 or CIBI3002	FS/SS
BIOL 4426 *course has lab in Spanish	Animal Parasitology	Sean Locke	BIOL 3052 or CIBI 3032 or BIOL 3022 or BIOL 4015	SS
BIOL 4505 *course has lab in Spanish	Human Physiology	John Michael Uscian	(CIBI3032 or BIOL3052) and (QUIM3461 and QUIM3462)	FS/SS
BIOL 5018 *course has lab in English	Plant Physiology	Dimuth Siritunga	BIOL 3417 or BIOL 3435 or DIR.  Co-Requisite: QUIM 3032 or QUIM 3062 or QUIM 3463 or DIR.	Projected  SS 2020  SS 2022

## PHYSICS

Course Code	Name	Professors	Prerequisites	Term
ASTR 4005	Astronomy I	Henri Radovan Leszek Nowakowski	FISI 3151 or FISI 3011 or FISI 3161 or FISI 3171	FS
ASTR 4006	Astronomy II	Henri Radovan Leszek Nowakowski	ASTR 4005 and FISI 3152 or FISI 3162 or FISI 3172	SS
CIFI 3011	Physical Science I	Mark Jury	N/A Co-requisites: MATE 3171 or MATE 3173 or MATE 3086 or DIR.	FS
CIFI 3012	Physical Science II	Mark Jury	CIFI 3011	SS
METE 4006	Introductory Meteorology	Mark Jury	FISI 3151 or FISI 3161 or FISI 3171 or FISI 3012	FS/SS
METE 4007	Meteorological Measurements	Mark Jury	METE 4006	FS
METE 4008	Physical Meteorology	Mark Jury	METE 4006 and MATE 3063	Depend on demand (usually given on SS)
FISI 3171	Physics I	Henri Radovan Leszek Nowakowski Sergiy Lysenko Sudhir Malik Yong-Jihn Kim	MATE 3031 or  MATE 3183 or  MATE 3144	FS/SS
FISI 3172	Physics II	Henri Radovan Leszek Nowakowski Sergiy Lysenko Sudhir Malik Yong-Jihn Kim	FISI 3171 o FISI 3161	FS/SS

## MARINE SCIENCES

Course Code	Name	Professors	Prerequisites	Term
CMOG 5001	Introduction to Climate Change	Dr. Wilford Schmidt (UPRM)	Dir.  <i>(graduate course, available for undergrad student)</i>	FS/SS
CIMA 5005	Introduction to Oceanography	Dr. Wilford Schmidt (UPRM)	Dir.  <i>(master course, available for undergrad student)</i>	FS/SS
CMOB 6079	DNA Data Analysis of Marine Organisms	Dr. Nikolaos Schizas (Magueyes Island)	<i>(graduate course)</i>	SS
CMOG 6616	Geological Oceanography	Dr. Clark Sherman (Magueyes Island)	<i>(graduate course)</i>	FS
CMOF 6617	Physical Oceanography	Dr. Wilford Schmidt (UPRM)	<i>(graduate course)</i>	FS
CMOB 6618	Biological Oceanography	Dr. Nikolaos Schizas (Magueyes Island)	<i>(graduate course)</i>	SS
CMOG 8606	Coastal Geomorphology	Dr. Clark Sherman (Magueyes Island)	<i>(graduate course)</i>	SS
CMOF 8619	Coastal Oceanography	Dr. Wilford Schmidt (UPRM)	<i>(graduate course)</i>	SS
CMOG 8675	Advanced Geological Oceanography	Dr. Clark Sherman (Magueyes Island)	<i>(graduate course)</i>	Depend on demand (FS/SS)
CMOB 8676	Systematics of Marine Invertebrates	Dr. Nikolaos Schizas (Magueyes Island)	<i>(graduate course)</i>	Depend on demand (FS)
CMOG 8706	Structure of Coral Reef	Dr. Clark Sherman (Magueyes Island)	<i>(graduate course)</i>	Depend on demand (SS)

## MATHEMATICS

Course Code	Name	Professors	Prerequisites	Term
MATE 3031	Calculus I	Robert Acar Stan Dziobiak	MATE3005 or MATE3143 or MATE3172 or MATE3174	FS/SS
MATE 3032	Calculus II	Robert Acar Stan Dziobiak Wieslaw Dziobiak	MATE3031 or MATE3144 or MATE3183	FS/SS
MATE 3040	Theory Of Numbers	Stan Dziobiak	MATE3032 or MATE3184	FS
MATE 3048	Mathematical Analysis	Wieslaw Dziobiak	MATE3032 or MATE3184, Co-Requisites: MATE3010 or COMP3010 or INGE3016	FS/SS
MATE 3049	Mathematical Analysis For Management Sciences	Wieslaw Dziobiak Xuerong Yong	MATE3171 or MATE3173 or DIR	FS/SS
MATE 3063	Calculus III	Robert Acar Wieslaw Dziobiak Lev Steinberg Alexander Shramchenko	MATE3032 or MATE3184	FS/SS
MATE 3171	Precalculus I	Darell Hajek	EXA or MATE0066	FS/SS
MATE 3181	Discrete Mathematics I	Stan Dziobiak	MATE3031	FS/SS
MATE 4009	Ordinary Differential Equations	Lev Steinberg Alexander Shramchenko	MATE3063 or MATE3185	FS/SS
MATE 4020	Partial Differential Equations And Fourier Series	Lev Steinberg	MATE4009	Variable
MATE 4031	Introduction To Linear Algebra	Robert Acar Xuerong Yong	MATE3032 or MATE3184	FS/SS
MATE 4050	Undergraduate Seminar	Xuerong Yong Stan Dziobiak	DIR.	FS/SS
MATE 4052	Advanced Calculus Ii	Robert Acar	MATE 4051	SS
MATE 4061	Numerical Analysis I	Alexander Shramchenko	(MATE3063 or	FS/SS



			MATE3185) and (MATE3010 or COMP3010 or INGE3016)	
MATE 4071	Introduction To Mathematics Of Modern Science I	Lev Steinberg	MATE4009	FS
MATE 4072	Introduction To Mathematics Of Modern Science Ii	Lev Steinberg	MATE4009	SS
MATE 4145	Linear Algebra And Differential Equations	Robert Acar	MATE3063 and (COMP3010 or INGE3016)	FS/SS
COMP 3010	Introduction To Computer Programming I	Marko Schutz	MATE3171 or MATE3005 or MATE3143	FS/SS
COMP 3057	Computer Fundamentals	Darell Hajek	NA	FS/SS
COMP 4006	Operating Systems	Darell Hajek	COMP4016	FS
COMP 4009	Software Engineering	Marko Schutz	ICOM4035	SS
COMP 4017	Computer Algorithms	Marko Schutz	COMP3075	FS
COMP 4018	Database Systems	Marko Schutz Darell Hajek	COMP3075	SS
COMP 4036	Programming Languages	Darell Hajek Marko Schutz	COMP 3110 or MATE 3110	SS
COMP 4046	Computer Graphics	Darell Hajek	COMP3075 and MATE4031	FS
COMP 4075	Programming Methodology	Marko Schutz	((COMP 3075 or MATE 3075) and MATE 3020) or DIR.	Variable
ESMA 3101	Applied Statistics I	Wolfgang Rolke	MATE3171 or MATE3173	FS/SS
ESMA 3102	Applied Statistics Ii	Wolfgang Rolke	ESMA3101	FS/SS
ESMA 3015	Elementary Statistics	Wolfgang Rolke	MATE3171 or MATE3173 or MATE3086	FS/SS
ESMA 5015	Stochastic Simulation	Wolfgang Rolke	ESMA 4001 or DIR.	SS

### HUMANITIES

Course	Name	Professors	Prerequisite	Term
HUMA 3111	Introduction to Western Culture I & II	Dr. Brown	NA	FS/SS
HUMA 3112	Introduction to Western Culture III & IV	Dr. Brown	HUMA 3111	FS/SS

FILO 4146	Contemporary Epistemology	Dr. Brown	FILO 3165 Corequisite FILO 3166	By demand
FILO 4147	Philosophy of Psychology	Dr. Brown	PSIC 3002	FS/SS
HUMA 3411	Introduction to the Culture of South Asia	Dr. Brown	NA	By demand FS
HUMA3412	Introduction to the Oriental Culture	Dr. Brown	NA	By demand SS

Academic calendar link: [http://academico.uprm.edu/p/decasac/calendario\\_academico](http://academico.uprm.edu/p/decasac/calendario_academico)

Academic catalogs link: [http://www.uprm.edu/p/decasac/catalogo\\_academico](http://www.uprm.edu/p/decasac/catalogo_academico)