



19 de diciembre de 2022

Dr. Rubén Díaz Rivera, Director
Departamento de Ingeniería Mecánica
Colegio de Ingeniería
Universidad de Puerto Rico
Recinto Universitario de Mayagüez

Estimado doctor Díaz:

Me complace informarle que se aprobó la revisión curricular solicitada por su departamento, cuya copia adjunto, según lo establece la Guía General para la Preparación y Trámite de Propuestas de Cambio Académico de la Vicepresidencia en Asuntos Académicos e Investigación 2020.

Esta revisión curricular será efectiva desde el Segundo Semestre 2022-2023 y aplicarán a estudiantes que ingresen desde el Segundo Semestre del año académico 2022-2023 en adelante.

Cordialmente,

Betsy Morales Caro, Ph.D.
Decana

iot

c: Decano, Registradora, Catálogo





DEPARTAMENTO DE INGENIERÍA MECÁNICA
MECHANICAL ENGINEERING DEPARTMENT



Universidad de Puerto Rico, Recinto de Mayagüez
University of Puerto Rico at Mayagüez

15 de diciembre de 2022


Dra. Betsy Morales Caro
 Decana de Asuntos Académicos
 Recinto Universitario de Mayagüez

Propuesta para revisión menor del Programa de Bachillerato en Ciencias en Ingeniería Mecánica de la Facultad de ingeniería (0504) para crear una alternativa al curso de Diseño Creativo I.

Estimada doctora Morales

Actualmente, el programa de Ingeniería Mecánica tiene en el primer semestre del primer año el curso INGE 3809 – Diseño Creativo I. Este curso tiene codificación dual con INME 3809. A través de la presente se solicita que se añada la opción de INME 3809 como alternativa a INGE 3809 al currículo del programa subgraduado de Ingeniería Mecánica. La Tabla 1 muestra un comparativa entre el currículo actual y el propuesto.

Atentamente,


 Dr. Rubén Díaz Rivera
 Director
 Departamento de Ingeniería Mecánica



 Vo. Bo: Dra. Cristina Pomales
 Decana Asociada de Asuntos Académicos
 Decanato de Ingeniería

Tabla 1. Diseño del currículo actual

Actual				
	Course		Pre and Co-Requisites	Cd s
1 st year sem 1	QUIM 3131	General Chemistry I	Co-Req: QUIM 3133 & (MATE 3171 or MATE 3005)	3
	QUIM 3133	General Chemistry Lab. I	Co-Req: QUIM 3131 & (MATE 3171 or MATE 3005)	1
	INGL_____			3
	ESPA 3131 or ESPA 3101	Academic Literacy I or Basic Course in Spanish I		3
	INGE 3809	Creative Design I		3
	ELECTIVE	Elective course in Humanities, Social Sciences, and Creative Arts Recommended: ECON 3021 - Principles of Economy I		3
TOTAL			16	

Tabla 1. Diseño del currículo propuesto

Proposal				
	Course		Pre and Co-Requisites	Cd s
1 st year sem 1	QUIM 3131	General Chemistry I	Co-Req: QUIM 3133 & (MATE 3171 or MATE 3005)	3
	QUIM 3133	General Chemistry Lab. I	Co-Req: QUIM 3131 & (MATE 3171 or MATE 3005)	1
	INGL_____			3
	ESPA 3131 or ESPA 3101	Academic Literacy I or Basic Course in Spanish I		3
	INME 3809 or INGE 3809	Creative Design I		3
	ELECTIVE	Elective course in Humanities, Social Sciences, and Creative Arts Recommended: ECON 3021 - Principles of Economy I		3
TOTAL			16	

Actual				
1 st year sem2	Course		Pre and Co-Requisites	Cds
	MATE 3031	Calculus I	MATE 3172 or MATE 3005	4
	INGE 3016	Algorithms and Computer Programming	MATE 3172 or MATE 3005	3
	INGL_____			3
	EDFI_____	Non-Professional Elective course in Kinesiology (2crs. total)		1
	ESPA 3132 or ESPA3102	Academic Literacy II or Basic Spanish II	ESPA 3131 or ESPA 3101	3
	FILO_____	Elective course in Humanities, Social Sciences, and Creative Arts from a pre-defined FILO Ethics electives list		3
TOTAL			17	
2nd year sem1	Course		Pre and Co-Requisites	Cds
	MATE 3032	Calculus II	MATE 3031	4
	FISI 3171	Physics I	MATE 3031	4
	FISI 3173	Physics Lab. I	Co-Req: FISI 3171	1
	INGL_____			3
	INGE 3031	Eng. Mechanics Statics	MATE 3031	3
TOTAL			15	
2nd year sem2	Course		Pre and Co-Requisites	Cds
	MATE 3063	Calculus III	MATE 3032	3
	FISI 3172	Physics II	FISI 3171	4
	FISI 3174	Physics Lab. II	FISI 3173 Co-Req: FISI 3172	1
	INGL_____	Required, Basic: INGL 3209 Communication in Science; Pre-Req: INGL 3201 Intermediate: Course in English Communication INGL 3236 Technical Writing or INGL 3250 Public Speaking		3
	INGE 3032	Eng. Mechanics Dynamics	INGE 3031 & FISI 3171	3
	INME 4108	Material Science & Eng.	(QUIM 3131 & QUIM 3133) & FISI 3171	3
TOTAL			17	

Proposal				
1 st year sem2	Course		Pre and Co-Requisites	Cds
	MATE 3031	Calculus I	MATE 3172 or MATE 3005	4
	INGE 3016	Algorithms and Computer Programming	MATE 3172 or MATE 3005	3
	INGL_____			3
	EDFI_____	Non-Professional Elective course in Kinesiology (2crs. total)		1
	ESPA 3132 or ESPA3102	Academic Literacy II or Basic Spanish II	ESPA 3131 or ESPA 3101	3
	FILO_____	Elective course in Humanities, Social Sciences, and Creative Arts from a pre-defined FILO Ethics electives list		3
TOTAL			17	
2nd year sem1	Course		Pre and Co-Requisites	Cds
	MATE 3032	Calculus II	MATE 3031	4
	FISI 3171	Physics I	MATE 3031	4
	FISI 3173	Physics Lab. I	Co-Req: FISI 3171	1
	INGL_____			3
	INGE 3031	Eng. Mechanics Statics	MATE 3031	3
TOTAL			15	
2nd year sem2	Course		Pre and Co-Requisites	Cds
	MATE 3063	Calculus III	MATE 3032	3
	FISI 3172	Physics II	FISI 3171	4
	FISI 3174	Physics Lab. II	FISI 3173 Co-Req: FISI 3172	1
	INGL_____	Required, Basic: INGL 3209 Communication in Science; Pre-Req: INGL 3201 Intermediate: Course in English Communication INGL 3236 Technical Writing or INGL 3250 Public Speaking		3
	INGE 3032	Eng. Mechanics Dynamics	INGE 3031 & FISI 3171	3
	INME 4108	Material Science & Eng.	(QUIM 3131 & QUIM 3133) & FISI 3171	3
TOTAL			17	

Actual				
3rd year sem1	Course		Pre and Co-Requisites	Cdt s
	MATE 4009	Ordinary Differential Equations	MATE 3063	3
	INME 4109	Material Science & Eng. Lab.	INME 4108	1
	INME 4001	Thermodynamics I	(QUIM 3131 & QUIM 3133) & (FISI 3172 & FISI 3174)	3
	INGE 4019	Int. to Mechanics of Materials	INGE 3031 & MATE 3063	4
	INME 4005	Mechanism Design	INGE 3032 & INGE 3016	3
	INEL 3105	Electrical Systems Analysis I	MATE 3032 & INGE 3016 Co-Req: FISI 3172 & MATE 3063	3
TOTAL			17	
3rd year sem2	Course		Pre and Co-Requisites	Cdt s
	INGE 4015	Fluid Mechanics	INGE 3032 & MATE 3063	3
	INME 4011	Design of Mach. Elements I	(INGE 4019 O INGE 4012) & (INME 4107 OR INME 4108 OR INGE 4001)	3
	INME 4002	Thermodynamics II	INME 4001	3
	INEL 4201	Electronics 1	INEL 3105 & FISI 3172	3
INME 4055	Manufacturing Processes	INME 4107 OR INME 4108 OR INGE 4001	3	
TOTAL			15	
4th yer sem1	Course		Pre and Co-Requisites	Cd s
	INME 4210	System Dynamics and Controls I	MATE 4009 & (INEL 3105 OR INEL 4075) & INME 4005 & INME 4001	3
	INME 4012	Design of Mach. Elements II	INME 4011	3
	INME 4015	Heat Transfer	MATE 4009 & INGE 3016 & (INME 4001 OR INME 4045) & (INGE 4015 or INGE 4010)	3
	INGE 4016	Fluid Mechanics Lab.	Co-Req: INGE 4015	1
	INME 4056	Manuf. Processes Lab.	(INME 3809 OR INGE 3809 OR INGE 3011) Co-Req: INME 4055	1
	ININ 4010	Probability and Statistics for Engineers	MATE3032 & INGE3016	3
TOTAL			14	

Proposal				
3rd year sem1	Course		Pre and Co-Requisites	Cdt s
	MATE 4009	Ordinary Differential Equations	MATE 3063	3
	INME 4109	Material Science & Eng. Lab.	INME 4108	1
	INME 4001	Thermodynamics I	(QUIM 3131 & QUIM 3133) & (FISI 3172 & FISI 3174)	3
	INGE 4019	Int. to Mechanics of Materials	INGE 3031 & MATE 3063	4
	INME 4005	Mechanism Design	INGE 3032 & INGE 3016	3
	INEL 3105	Electrical Systems Analysis I	MATE 3032 & INGE 3016 Co-Req: FISI 3172 & MATE 3063	3
TOTAL			17	
3rd year sem2	Course		Pre and Co-Requisites	Cdt s
	INGE 4015	Fluid Mechanics	INGE 3032 & MATE 3063	3
	INME 4011	Design of Mach. Elements I	(INGE 4019 O INGE 4012) & (INME 4107 OR INME 4108 OR INGE 4001)	3
	INME 4002	Thermodynamics II	INME 4001	3
	INEL 4201	Electronics 1	INEL 3105 & FISI 3172	3
INME 4055	Manufacturing Processes	INME 4107 OR INME 4108 OR INGE 4001	3	
TOTAL			15	
4th yer sem1	Course		Pre and Co-Requisites	Cd s
	INME 4210	System Dynamics and Controls I	MATE 4009 & (INEL 3105 OR INEL 4075) & INME 4005 & INME 4001	3
	INME 4012	Design of Mach. Elements II	INME 4011	3
	INME 4015	Heat Transfer	MATE 4009 & INGE 3016 & (INME 4001 OR INME 4045) & (INGE 4015 or INGE 4010)	3
	INGE 4016	Fluid Mechanics Lab.	Co-Req: INGE 4015	1
	INME 4056	Manuf. Processes Lab.	(INME 3809 OR INGE 3809 OR INGE 3011) Co-Req: INME 4055	1
	ININ 4010	Probability and Statistics for Engineers	MATE3032 & INGE3016	3
TOTAL			14	

Actual					Proposal				
	Course		Pre and Co-Requisites	Cd s		Course		Pre and Co-Requisites	Cd s
4th year sem2	INME 4003	Design Thermal Fluid Syst.	INME 4001 & NME 4015	3	4th year sem2	INME 4003	Design Thermal Fluid Syst.	INME 4001 & NME 4015	3
	INME 4220	System Dynamics and Controls II	INME 4210	3		INME 4220	System Dynamics and Controls II	INME 4210	3
	INME____ -	Professional Electives (6 crs. total) course in Engineering from a pre-defined INME Computing electives list		3		INME____ -	Professional Electives (6 crs. total) course in Engineering from a pre-defined INME Computing electives list		3
	INME 4237	Mechatronics Lab.	ININ 4010 & INME 4210 & (INEL 4201 OR INEL 4076)	2		INME 4237	Mechatronics Lab.	ININ 4010 & INME 4210 & (INEL 4201 OR INEL 4076)	2
	FREE	Free Electives (12 crs. total)		3		FREE	Free Electives (12 crs. total)		3
	EDFI____	Non-Professional Elective course in Kinesiology (2crs. total)		1		EDFI____	Non-Professional Elective course in Kinesiology (2crs. total)		1
	TOTAL					15	TOTAL		
5th year sem1	INME 4238	Thermal Sciences Lab.	INME 4237 & INME 4002 Co-Req: INME4003	2	5th year sem1	INME 4238	Thermal Sciences Lab.	INME 4237 & INME 4002 Co-Req: INME4003	2
	ELECTIVE	Non-Professional Elective course in Humanities, Social Sciences, and Creative Arts from a pre-defined electives list		3		ELECTIVE	Non-Professional Elective course in Humanities, Social Sciences, and Creative Arts from a pre-defined electives list		3
	INME____ -	Professional Electives (6 crs. total)		3		INME____ -	Professional Electives (6 crs. total)		3
	ININ 4015	Engineering Economic Analysis	MATE 3032	3		ININ 4015	Engineering Economic Analysis	MATE 3032	3
	FREE	Free Electives (12 crs. total)		3		FREE	Free Electives (12 crs. total)		3
	TOTAL					14	TOTAL		
5th year sem2	INME 4157	Eng. Design	INME 4056 & INME 4012 & INME 4003 & INME 4220 & ININ 4015 Co-Req: INME 4238	4	5th year sem2	INME 4157	Eng. Design	INME 4056 & INME 4012 & INME 4003 & INME 4220 & ININ 4015 Co-Req: INME 4238	4
	FREE	Free Electives (12 crs. total)		3		FREE	Free Electives (12 crs. total)		3
	FREE	Free Electives (12 crs. total)		3		FREE	Free Electives (12 crs. total)		3
TOTAL				10	TOTAL				10
150					150				