College: **ENGINEERING**
Department: **MECHANICAL AND INDUSTRIAL ENGINEERING**
Cohorts: **2008**
Degree: **B. ENG**
Major: **INDUSTRIAL ENGINEERING**
Specialization:

Summary of Credits:

University Requirements (UR)		**12**
Intensive English	NC+	
English Requirements	6	
Arabic	3	
Contemporary Omani Society	1	
Oman & Islamic Civilization or Islamic Culture	2	
University Electives (UE)		**6**
See List A		
College Requirements (CR)		**34**
See list B		
College Electives (CE)		**1**
See list C		
Departmental Requirements (DR)		**32**
See list D		
Departmental Electives (DE)		**0**
See list E		
Major Requirements (AR)		**49**
See list F		
Major Electives (AE)		**6**
See list G		
Minor Requirements (IR)		**0**
See list H		
Minor Electives (IE)		**0**
See list I		
Specialization Requirements (SR)		**0**
See list J		
Specialization Electives (SE)		**0**
See list K		
TOTAL		**140**

For reference contact: (HoD) Ext. 1352

HoD Date

Dean's Office Date

Admission and Registration Date

Department of Mechanical and Industrial Engineering

Industrial Engineering Study Plan: 2008 Cohort (Scheme I)

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 1 Fall		**Intensive English**	0		UR
	Total		**0**		

	Course Code	Course Title	Credit Hours	Pre-requisite /Co-requisite*	Cat.
Semester 2 Spring	ARAB1001	Arabic	3		UR
	HIST1010 ISLM1010	Oman & Islamic Civilization **or** Islamic Culture	2		UR
	LANC2160	English for Engineering I	3		UR
	MATH1106	Pre-Calculus Mathematics	4		CR
	ENGR1500	Introduction to Engineering	2		CR
	ENGR1600	Workshop I	1		CR
	Total		**15**		

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 3 Fall	SOCI3320	Contemporary Omani Society	1		UR
	LANC2161	English for Engineering II	3	LANC2160 or equivalent	UR
	MATH2107	Calculus I	4	MATH1106	CR
	PHYS2107	General Physics I	4	MATH2107*	CR
	CHEM1071	General Chemistry for Engineers	3		CR
	Total		**15**		

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 4 Spring	COMP2xxx	Computer Programming	3		CR
	MATH2108	Calculus II	3	MATH2107	CR
	PHYS2108	General Physics II	4	PHYS2107	CR
		College Elective[a]	1		CE
	MEIE2129	Basic Mechanics	3	PHYS2107*	AR
	MEIE3104	Eng. Drawing & Comp. Graphics	3		DR
	Total		**17**		

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 5 Fall	MATH3171	Lin. Alg. & Mult. Calc. for Engineers	3	MATH2108, LANC2161	CR
	ECCE3015	Electrical Engineering Fundamentals	3	MATH2107, PHYS2108*	DR
	MEIE3102	Solid Mechanics	3	MEIE2129	DR
	MEIE3159	Thermofluids	3	PHYS2108*	AR
	MEIE3161	Materials Science	3		DR
	Total		**15**		

[a] ENGR1601 Workshop II

Department of Mechanical & Industrial Engineering

Industrial Engineering Study Plan: 2008 Cohort (Scheme I)

	Course Code	Course Title	Credit Hours	Pre-requisite /Co-requisite*	Cat.
January	ENGR3006	Industrial Training I	0	ENGR1600, MEIE3104	CR
	Total		**0**		

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 6 Spring	MATH4174	Differential Equations for Engineers	3	MATH2108, LANC2161	CR
	MEIE3261	Product Design and Development	3	MEIE3102, MEIE3104	AR
	MEIE3212	Methods Engineering & Work M	3		AR
	MEIE3270	Operations Research I	3	MATH3171*, COMP2xxx	AR
	MEIE4281	Probability & Statistics for Engineers	3	MATH2107	DR
	Total		**15**		

	Course Code	Course Title	Credit Hours	Pre-requisite /Co-requisite*	Cat.
Semester 7 Fall	MEIE4221	Quality Control	3	MEIE4281	AR
	MEIE4222	Production Planning and Control	3	MEIE3270, MEIE4281	AR
	MEIE4271	Operations Research II	3	MEIE3270	AR
	MEIE4285	Engineering Economics	3	MATH2107	DR
	MEIE4183	Numerical Methods for Engineers	3	COMP2xxx	DR
	MEIE4101	Computer Aided Machine Design	3	MEIE3102, MEIE3104	DR
	Total		**18**		

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 8 Spring	MEIE4267	Industrial Automation	3	ECCE3015, MEIE3159	AR
	MEIE4272	Simulation Models	3	MEIE4222, MEIE4271	AR
	MEIE4262	Manufacturing Processes	3	MEIE3161	DR
	MEIE4286	Management for Engineers	3		DR
	MEIE4201	Ergonomics and Safety	3		AR
	Total		**15**		

	Course Code	Course Title	Credit Hours	Pre-requisite /Co-requisite*	Cat.
Summer	ENGR4006	Industrial Training II	0	ENGR3006	CR
	Total		**0**		

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 9 Fall		University Elective	3		UE
	MEIE5291	Project I	2		AR
	MEIE5261	Industrial Engineering Design	3	MEIE3261	AR
	MEIE4223	Facilities Planning	3	MEIE4222, MEIE4201	AR
	MEIE 5282	Applied Statistics	2	MEIE4281	AR
	MEIE5295	Seminar	0		AR
		Department Elective I	3		AE
	Total		**16**		

Department of Mechanical & Industrial Engineering

Industrial Engineering Study Plan: 2008 Cohort (Scheme I)

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 10 Spring		University Elective	3		UE
	MEIE5292	Project II	3	MEIE5291	AR
	MEIE 5188	Business and Entrepreneurship	2	MEIE4286	DR
	MEIE5265	Computer Integrated Manufacturing	3	MEIE4262	AR
		Department Elective II	3		AE
	Total		**14**		

Department of Mechanical & Industrial Engineering

Industrial Engineering Study Plan: 2008 Cohort (Scheme II)

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 1 Fall		**Intensive English**	0		UR
	Total		**0**		

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 2 Spring		**Intensive English**	0		UR
	Total		**0**		

	Course Code	Course Title	Credit Hours	Pre-requisite /Co-requisite*	Cat.
Semester 3 Fall	ARAB1001	Arabic	3		UR
	LANC2160	English for Engineering I	3		UR
	CHEM1071	General Chemistry for Engineers	3		CR
	MATH1106	Pre-Calculus	4		CR
	ENGR1500	Introduction to Engineering	2		CR
	ENGR1600	Workshop I	1		CR
	Total		**16**		

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 4 Spring	SOCI3320	Contemporary Omani Society	1		UR
	HIST1010 ISLM1010	Oman & Islamic Civilization **or** Islamic Culture	2		UR
	LANC2161	English for Engineering II	3	LANC2160 or equivalent	UR
	MATH2107	Calculus I	4	MATH1106	CR
	PHYS2107	General Physics I	4	MATH2107*	CR
	MEIE2129	Basic Mechanics	3	PHYS2107*	AR
	Total		**17**		

	Course Code	Course Title	Credit Hours	Pre-requisite /Co-requisite*	Cat.
Summer	MATH2108	Calculus II	3	MATH2107	CR
	COMP2xxx	Computer Programming (Fortran/C++/Visual Basic)	3		CR
	Total		**6**		

Department of Mechanical & Industrial Engineering

Industrial Engineering Study Plan: 2008 Cohort (Scheme II)

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 5 Fall	PHYS 2108	General Physics II	4	PHYS2107	CR
		College Elective[b]	1	ENGR1600	CE
	MEIE3102	Solid Mechanics	3	MEIE2129	DR
	MEIE3104	Eng. Drawing & Comp. Graphics	3		DR
	MEIE3159	Thermofluids	3	PHYS2108*	AR
	ECCE3015	Electrical Engineering Fundamentals	3	MATH2107, PHYS2108*	DR
	Total		**17**		

	Course Code	Course Title	Credit Hours	Pre-requisite /Co-requisite*	Cat.
January	ENGR3006	Industrial Training I	0	ENGR1600, MEIE3104	CR
	Total		**0**		

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 6 Spring	MATH3171	Linear Algebra & Multivariate Calculus for Engineers	3	MATH2108, LANC2161	CR
	MEIE3161	Materials Science	3		DR
	MEIE3261	Product Design and Development	3	MEIE3102, MEIE3104	AR
	MEIE3212	Methods Engineering & Work M	3		AR
	MEIE3270	Operations Research I	3	MATH3171*, COMP2xxx	AR
	Total		**15**		

	Course Code	Course Title	Credit Hours	Pre-requisite /Co-requisite*	Cat.
Summer	MEIE4281	Probability & Statistics for Engineers	3	MATH2107	DR
	MATH4174	Differential Equations for Engineers	3	MATH2108, LANC2161	CR
	Total		**6**		

	Course Code	Course Title	Credit Hours	Pre-requisite /Co-requisite*	Cat.
Semester 7 Fall	MEIE4183	Numerical Methods for Engineers	3	COMP2xxx	DR
	MEIE4221	Quality Control	3	MEIE4281	AR
	MEIE4222	Production Planning and Control	3	MEIE3270, MEIE4281	AR
	MEIE4271	Operations Research II	3	MEIE3270	AR
	MEIE4285	Engineering Economics	3	MATH2107	DR
	MEIE4101	Computer Aided Machine Design	3	MEIE3102, MEIE3104	DR
	Total		**18**		

[b] ENGR1601 Workshop II

Department of Mechanical & Industrial Engineering

Industrial Engineering Study Plan: 2008 Cohort (Scheme II)

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 8 Spring	MEIE4267	Industrial Automation	3	ECCE3015, MEIE3159	AR
	MEIE4272	Simulation Models	3	MEIE4222, MEIE4271	AR
	MEIE4262	Manufacturing Processes	3	MEIE3161	DR
	MEIE4286	Management for Engineers	3		DR
	MEIE4201	Ergonomics and Safety	3		AR
	Total		**15**		

	Course Code	Course Title	Credit Hours	Pre-requisite /Co-requisite*	Cat.
Summer	ENGR4006	Industrial Training II	0	ENGR3006	CR
	Total		**0**		

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 9 Fall		University Elective	3		UE
	MEIE5291	Project I	2		AR
	MEIE5261	Industrial Engineering Design	3	MEIE3261	AR
	MEIE4223	Facilities Planning	3	MEIE4222, MEIE4201	AR
	MEIE5282	Applied Statistics	2	MEIE4281	AR
	MEIE5295	Seminar	0		AR
		Department Elective I	3		AE
	Total		**16**		

	Course Code	Course Title	Credit Hours	Pre-requisite/Co-requisite*	Cat.
Semester 10 Spring		University Elective	3		UE
	MEIE5292	Project II	3	MEIE5291	AR
	MEIE5188	Business and Entrepreneurship	2	MEIE4286	DR
	MEIE5265	Computer Integrated Manufacturing	3	MEIE4262	AR
		Department Elective II	3		AE
	Total		**14**		

Last updated: on Dec 15, 2009

Department of Mechanical and Industrial Engineering

Industrial Engineering Degree Plan: 2008 Cohort

LIST A^{T} – UNIVERSITY ELECTIVES

Course Code	Course Title	Credits	College
ARAB1110	An Introduction to Linguistics	3	Arts
ARAB1220	Pre-Islamic Literature	3	Arts
ARAB1540	The Natural and Cultural Heritage of Oman	2	Arts
ARAB1551	Administering Archaeological Heritage in Oman	2	Arts
ARCH1120	Principles of Archaeology	3	Arts
ARCH1180	Archaeology and Environment in Oman	2	Arts
GEOG1015	Introduction to Geography	2	Arts
GEOG1110	Physical Geography	3	Arts
GEOG1220	Human Geography	3	Arts
GEOG2031	Urbanization in the Arabian Gulf	2	Arts
GEOG2122	Man and Environment	2	Arts
GEOG2124	Geography of Climate	3	Arts
HIST1024	Introduction to World History	2	Arts
HIST1030	History of the GCC Countries	2	Arts
HIST1040	Some Aspects of the History of Oman	2	Arts
HIST1050	The Arab World and the West	2	Arts
HIST1060	The Spread of Islam in Europe	2	Arts
HIST1070	The Contemporary of the Islamic World	2	Arts
HIST1090	Civilizations of the Arabian Peninsula	2	Arts
HIST1110	History of the Ancient Near Eastern	2	Arts
HIST1320	History of Prophet and Caliphate Era	3	Arts
HIST2210	European History and Civilization in the Middle Ages	3	Arts
INFO1060	Information Science	2	Arts
INFO2210	Information Technology	3	Arts
MASS1030	Public Opinion (UE)	2	Arts
MASS1080	Principles of Public Relations (UE)	2	Arts
MASS2021	Mass Media in Oman	3	Arts
MASS2110	Communication and Development	3	Arts
PHIL1011	An Introduction to Philosophy	3	Arts
PHIL1100	Critical Thinking and Problem Solving	3	Arts
PHIL2060	Ethics	2	Arts
SOCI101	Introduction to Sociology	3	Arts
SOCI1230	Sociology of Populations	3	Arts
SOCI2112	Education System in Oman	3	Arts
SOCI2120	Sociology of Family	3	Arts
SOCI2151	Medical Sociology	2	Arts
SOWK1100	Introduction to Social Work	2	Arts

SOWK1211	Research in Social Work	3	Arts
THAR1003	Music Appreciation	2	Arts
THAR1001	Theater Appreciation	2	Arts
THAR1013	Oratory/Presentation	2	Arts
THAR1012	Play Writing	2	Arts
THAR1016	Child's Theater	2	Arts
TOUR1010	Introduction to Tourism	2	Arts
TOUR1020	Modern Trends in Tourism	3	Arts
TOUR1050	Tourism in Oman	2	Arts
TOUR1060	Introduction to Tourism Guidance	3	Arts
TOUR2160	Tourism and Ecology	3	Arts
ISLM1020	Human Right in Islam	2	Education
ISLM1101	Recitation and Memorization of the Holy Quran 1	1	Education
ISLM1102	Introduction to Islamic Fiqh	3	Education
ISLM2030	The Miracle of the Holy Quran	2	Education
ISLM2031	Islamic Economy	2	Education
ISLM2060	Family Systems in Islam	2	Education
ISLM2090	Islamic Ethics	2	Education
ISPR1106	Interpretation and quranic sciences	3	Education
ISPR1601	Islam and the Modern World	2	Education
ARED1001	Contemporary Visual Arts	2	Education
ARED1002	Appreciation of Islamic Arts and Arabic	2	Education
FOND1101	The Miracle of the Holy Quran	2	Education
FOND2106	Analytical Interpretation	3	Education
TECH1000	Study Skills	2	Education
INFS4100	Children's Literature	2	Commerce
BCOM1950	Varieties of Public and Professional Communication	3	Commerce
BCOM1960	Cross-Cultural Communication	2	Commerce
PHYS2802	Universe Exploring	2	Science
PHYS2901	Astronomy	3	Science
PHYS3901	Universe's Mysteries	3	Science
CUTM1001	Sci & Sci Education	2	Science
ERSC1002	Geological wonders	2	Science
ERSC1003	Int. Env. Geology	2	Science
ERSC1005	Water Resources in Oman	2	Science
ERSC1006	Gemstones	2	Science
SWAE2003	Water in Arid Environment	2	Agriculture
BHSC2025	Behavioral Science I	3	Medicine
NURS1005			
BHSC2029	The Fundamentals of Thinking and Creativity	2	Medicine
AREN4404	Environmental Psychology	3	Engineering

T: Engineering students must select a humanity or social course (non-scientific & non-linguistic course) from any college as a University Elective.

LIST B: COLLEGE REQUIREMENTS (CR)

Code	Title	Credits	Pre-Requisite / Co-req. *
ENGR1500	Introduction to Engineering	**2**	
ENGR1600	Workshop I	**1**	
MATH1106	Pre-Calculus Mathematics	**4**	
MATH2107	Calculus I	**4**	MATH1106
MATH2108	Calculus II	**3**	MATH 2107
MATH3171	Linear Algebra & Multivariate Calculus	**3**	MATH2108, LANC2161
MATH4174	Differential Equations for Engineers	**3**	MATH2108, LANC2161
ENGR2216 Or COMP2002	Programming in Fortran or Introduction to Comp. Program.	**3**	
PHYS2107	General Physics I	**4**	MATH2107*
PHYS2108	General Physics II	**4**	PHYS 2107
CHEM1071	General Chemistry for Engineers	**3**	
ENGR3006	Industrial Training I	**0**	CIVL3056
ENGR4006	Industrial Training II	**0**	ENGR3006
Total		**34**	

Department of Mechanical and Industrial Engineering

Industrial Engineering Degree Plan: 2008 Cohort

LIST C: COLLEGE ELECTIVES (CE)

Code	Title	Credits	Pre-Requisite / Co-req. *
ENGR1601	Workshop II	**1**	
Total		**1**	

Department of Mechanical and Industrial Engineering

Industrial Engineering Degree Plan: 2008 Cohort

LIST D: DEPARTMENT REQUIREMENTS (DR)

Code	Title	Credits	Pre-Requisite / Co-req. *
MEIE 3104	Eng. Drawing & Comp. Graphics	3	
MEIE 3161	Material Science	3	
MEIE 3102	Solid Mechanics	3	MEIE 2102 or MEIE 2129
MEIE 4101	Computer Aided Machine Design	3	MEIE 3102, 3104
MEIE 4262	Manufacturing Processes	3	MEIE 3161
MEIE 4183	Numerical Methods for Engineers	3	COMP 2xxx, MATH 3171
MEIE 4281	Probability & Statistics for Engineers	3	MATH 2107
MEIE 4285	Engineering Economics	3	MATH 2107
MEIE 4286	Management for Engineers	3	
MEIE 5188	Business & Entrepreneurship	2	MEIE 4286
ECCE 3015	Electrical Engineering Fundamentals	3	PHYS 2107, PHYS2108*
Total		**32**	

Department of Mechanical and Industrial Engineering

Industrial Engineering Degree Plan: 2008 Cohort

LIST F: MAJOR REQUIRMENTS (AR)

Code	Title	Credits	Pre-Requisite / Co-req. *
MEIE 2129	Basic Mechanics	**3**	PHYS2107*
MEIE 3159	Thermofluids	**3**	PHYS 2108*
MEIE 3261	Product Design and Development	**3**	MEIE 3102, MEIE 3104
MEIE 3212	Methods Engineering & Work M	**3**	
MEIE 3270	Operations Research I	**3**	MATH 3171*, COMP2xxx
MEIE 4221	Quality Control	**3**	MEIE 4281
MEIE 4222	Production Planning and Control	**3**	MEIE 3270, MEIE 4281
MEIE 4271	Operations Research II	**3**	MEIE 3270
MEIE 4267	Industrial Automation	**3**	ECCE 3015, MEIE 3159
MEIE 4272	Simulation Models	**3**	MEIE 4222, MEIE 4271
MEIE 4201	Ergonomics and Safety	**2**	
MEIE 5261	Industrial Engineering Design	**3**	MEIE 3261
MEIE 4223	Facilities Planning	**3**	MEIE 4222, MEIE 4201
MEIE 5282	Applied Statistics	**3**	MEIE 4281
MEIE 5295	Seminar	**0**	
MEIE 5265	Computer Integrated Manufacturing	**3**	MEIE 4262
MEIE 5291	Project I	**2**	
MEIE 5292	Project II	**3**	MEIE 5291
Total		**49**	

Department of Mechanical and Industrial Engineering

Industrial Engineering Degree Plan: 2008 Cohort

LIST G: MAJOR ELECTIVES (AE)

Two Courses- 6 credit hours

The elective courses will be offered from the following, subject to availability.

1	MEIE5202	Industrial Safety
2	MEIE5203	Industrial Work System Design
3	MEIE5231	Inventory Management
4	MEIE5232	Reliability and Maintenance Engineering
5	MEIE5241	Computer Applications in IE
6	MEIE5242	Expert Systems
7	MEIE5263	Design for Manufacturing
8	MEIE5264	CAD/CAM
9	MEIE5268	Industrial Robots
10	MEIE5286	Data Warehousing and e-Commerce
11	MEIE5287	Project Management
12	MEIE5296	Case Studies in IE
13	MEIE5297	Special Topics