Chairs' & Program Leaders' Meeting Minutes

Date: March 26, 2012 (12:00 to 2:00 pm)
Location: EBU II – Room 443
Attendees: Abbaschian, Reza
Boretz, Mitch
Farrell, Jay
Garay, Javier
Hartney, Pat
Matsumoto, Mark
Myung, Nosang
Ravi
Rodgers, Victor
Stahovich, Tom

Absent: Bhuyan, Laxmi
Najjar, Walid
Vafai, Kambiz

The agenda for the meeting is shown in Appendix 1.

1. Welcome and call for agenda items – Mark
No items were added to the agenda.

2. Approval of Minutes
The minutes of the 2/24/12 Chairs/Program Leaders Meeting were unanimously approved.

3. Department Updates
CEE: The first faculty offer made by the department was declined by the candidate due to personal reasons. The department is reviewing the next two highest ranked candidates. CEE's ABET self-study report should be completed by the end of the week. The department is moving into new offices in Bourns Hall.

MSE: Javier indicated that the preparation of MSE's ABET self-study is on-going.

ME: The department has been given approval by the Dean to start formal negotiations with the top candidate for its Energy faculty hire. ME is reviewing the top two candidates for its Robotics faculty position and expects to make a final selection soon. Departmental lab audits are being completed. Both CNC milling machines in the ME Machine Shop are broken and will need repairs.

CSE: The department's top faculty candidate has expressed interest in coming to UCR. Discussions with its Target of Excellence candidate are proceeding. A CSE Advisory Board meeting is scheduled for next week. The preparation of the department's ABET self-study report is on-going.

EE: The department is evaluating its top two faculty candidates. The department's draft ABET self-study report is being completed. Jay noted that UCR's Office of Research has been very slow to process a grant award and there have been difficulties receiving timely responses from the Office of Technology Commercialization.

BIEN: The department has submitted a faculty hire recommendation to the Dean. BIEN is still completing its move into the new MS&E Building. The department's ABET self-study report is in process.

4. Undergraduate Education – Ravi

Ravi noted the information on UNEX International Student Programs attached to the agenda. This information indicates that there are a significant number of international upper-division students who are seeking UCR courses through UNEX. Most of these students are supported by their governments and are high quality students. UNEX will pay $640/seat to BCOE for each international student that can be guaranteed a seat in a BCOE course. The higher payment of $640 vs. the normal $200 concurrent enrollment fee is due to the fact that BCOE is guaranteeing the seats. Ravi commented that UCD is taking 50 Brazilian students under a similar program. Ravi needs to know as soon as possible the BCOE departmental courses available for these international students and the number of seats in these courses that can be guaranteed by the department. Also, UNEX is working with UCR's School of Business Administration (SOBA) on an Entryway into MBA Program with five Chinese universities. These students complete three years of undergraduate study at the Chinese University and then one year at UCR. The degree would be granted by the Chinese University. The students would be given conditional admission to UCR's MBA Program after one term. In addition to the $640/seat fee, SOBA is charging an $8,000 Premium for each student. Ravi recommends that BCOE develop a similar program. He feels that there is large demand by foreign students for such a program which could generate significant funds for BCOE.

The Chairs expressed interest in the above programs but want to proceed slowly with a limited number of guaranteed seats per selected courses. Also, it was felt that if BCOE guarantees seats, then UNEX should guarantee the $640/seat fee to BCOE.

Lastly, Ravi pointed to the course conversion tables from a Spanish university attached to the agenda and the listing of BCOE courses offered from 09F to 11W with enrollments. The later list can be used by the Chairs to help evaluate the courses that might be available for the above programs and the number of possible seats that could be guaranteed.

5. Graduate Education - Mark

Mark distributed a summary of FY 12/13 graduate student recruitment status to date by BCOE department. Compared to last year, the number of total applications is down slightly but the number of SIRs has increased. He noted that some departments will have difficulty meeting their grad student targets unless their number of offers is increased soon. The deadline is April 15th. Lastly, he noted that some programs, in particular MSE, are over their grad student funding allocations.

6. Undergraduate Equipment - Pat

Pat reminded Chairs that requests for FY 11/12 Instructional Equipment funding are due in the BCOE Dean's Office by March 29th.

7. Teaching Assistants - Pat

Pat distributed a summary of undergraduate enrollment per TA FTE for Fall 2011 by BCOE department. This summary separated service courses from other departmental undergraduate courses. Pat will develop a similar summary for Winter 2012 and a projection for Spring 2012. This information can be used to develop a new TA allocation methodology that weights service courses in BCOE departments differently from other

undergraduate courses. Such a revised methodology will be used to make future TA allocations to departments. Lastly, Pat mentioned that he has received most, but not all, departmental requests for FY 11/12 supplemental TA resources.

8. Computer Labs
This topic was not discussed during the meeting.

9. US World News Ranking – Reza and Mark
Mark noted the 2013 US News and World Report ranking data for engineering colleges and individual programs attached to the agenda. BCOE is ranked #64 this year compared to #66 last year (vs #68 the year before).

BCOE program rankings are:

BIEN:	#51 (first time ranked)
Chemical Engr:	#61
Computer Engr:	#52
Computer Science:	#53
EE:	#62 (from #75 last year)
Environ. Engr:	#41 (from #47 last year)
MSE:	#58
ME:	#72

Also, Mark noted the Faculty Size vs 2013 US News Ranking graphs attached to the agenda. These graphs continue to indicate that most UC colleges of engineering, including BCOE, are on a ranking curve that is distinct from other public colleges of engineering and is closer to a ranking curve for private colleges of engineering. Lastly, Reza noted that assessments by peers are still the most important criteria in these US News rankings.

UNIVERSITY OF CALIFORNIA
RIVERSIDE
BOURNS COLLEGE OF ENGINEERING

Chairs' & Program Leaders' Meeting

March 26, 2012

Agenda

Winston Chung Hall – Room 443

1.	Welcome - Request for Agenda Items from the Floor	Reza
2.	Approval of Minutes from February 24, 2012 Meeting	Pat
3.	Department Updates	All
4.	Undergraduate Education	Ravi
5.	Graduate Education	Mark
6.	Undergraduate Equipment	
7.	Teaching Assistants	
8.	Computer Labs	
9.	US World News Ranking	Reza
10.	Other Matters	

Future meeting schedule

Chairs' & Center Directors' Meetings
~~Friday, March 9, 2012~~
Monday, April 2, 2012
Monday, April 30, 2012
Friday, May 25, 2012
Monday, June 25, 2012
Monday, July 23, 2012

Chairs' & Program Leaders' Meetings
Monday, March 19, 2012 (changed to 3/26)
Friday, April 20, 2012
Monday, May 14, 2012
Friday, June 15, 2012
Monday, July 9, 2012

Please note: Meetings will be held in Winston Chung Halll – Room 443

International Student Programs via UNEX

- Lots of foreign students seeking coursework via UNEX
  - 50-100 students/year, easily
  - Mostly govt.-sponsored students, so high quality
- Challenge: Must guarantee seats
  - Can get $640/student/course if seats are guaranteed
  - Can we provide offering and seat guarantees?
- UNEX has other programs in place already
  - E.g.: **Postgraduate Diploma in Management**
  - We could extend it to a **Diploma in Engineering and Management**

Quarter 1	**Quarter 2**	Quarter 3
5 Business courses	**3—4 Engineering courses (upper division)**	Internship

- Arithmetic looks good
  - 20 students@$640/course × 4 courses = $51,200
  - 20 students@$640/course × 9 courses = $115,200
  - Win-win: Can offer more sections for in-state students

- SOBA is planning an ***Entryway Into MBA*** program
  - Arrangements with 5 Chinese universities
    - (50 students/university) × (5 universities) = 250 students
  - 3 years in China + 1 year at UCR → Degree from Chinese university
  - Conditional admission to MBA after one term
- Cost structure
  - UNEX charges $12,900/student, gives us $640/student/course
  - SOBA plans to charge $20,900 per student
    - The $8000 premium goes directly to SOBA (possibly)!
- BCoE can do this as well
  - 3 years in China + 1 year at UCR → Degree from Chinese university
  - No UCR admissions process, no Senate approval needed
    - We work with UNEX directly
  - 100 students/year would bring in $1M/year
    - Directly to BCoE (hopefully)
- **We could propose a similar program**

International Requests Pending

Spanish students

We have 12 students from Universidad Europea Madrid (9 Industrial and 3 electronic) going into a yet to be developed ***Postgraduate Diploma in Engineering and Management***. In the first quarter they do Business courses. In the second quarter **(Winter quarter 2013)** they take 4 Engineering courses (upper level or graduate level). In the third quarter they do training with a company.

German students

We have 3 Mechanical Engineering students (may be more) coming in September/ **Fall Quarter** (possibly more as this school has multiple campuses). They want upper division courses.

Brazilian Scholars

We have the opportunity to host top Brazilian students in the STEM areas. We can take as many as we wish (we understand Davis took 50). The Brazilian Government will be placing 1500 for this next academic year (September to June). The students stay one year.

Dear Bronwyn,

How are you? I hope that it is much warmer in Riverside than here!

After your visit we promoted your program in the department of mechanical engineering and we actually have several students who are interested in studying at UCR next Fall. Their professor is quite flexible but I would be very grateful if you could check some courses for me:

ME120 Linear System and Controls
ME122 Vibrations
ME130 Kinematic and Dynamic Analysis of Mechanism
ME135 Transport Phenomena
ME153 Finite Element Methods
ME170A Experimental Techniques
ME174 Machine Design
ME175A Professional Topics in Engineering
ME180 Optics and Lasers in Engineering

and

MGT243 Product Management
MGT266 Project Management

Their professor would also be willing to accept three courses if the students could do a project with a professor at UCR and write a report which is evaluated/graded by this professor. Do you think that this would be possible?

Mechanical engineering is one of our most difficult departments when it comes to studying abroad and I am very happy that this new professor is so open. I hope that you can help us with the courses and the project work :)

Thank you very much in advance!

Best wishes from an icy Stuttgart

Dorte

Mit freundlichen Grüßen/Best regards

Dorte Süchting
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-----Ursprüngliche Nachricht-----
Von: Ramon Julian Ebner [mailto:mb10020@lehre.dhbw-stuttgart.de]
Gesendet: Freitag, 27. Januar 2012 08:13
An: Süchting, Dorte
Cc: Simons, Florian
Betreff: Kursauswahl UCR
Wichtigkeit: Hoch

Hallo Frau Süchting,

Wir hatten gestern bei Herrn Simons einen Termin, um die Kursauswahl für die UCR zu besprechen. Da wir uns nicht alle die selben Kurse herausgesucht haben, stehen bisher 9 Kurse zur Auswahl. Ich wollte fragen, ob es möglich wäre, diese 9 Kurse anzufragen? So könnte sich jeder seinen Kursplan nach eigenem Interesse gestalten. Wenn dies nicht möglich ist werde ich Ihnen natürlich die Kurse mit der für uns höchsten Priorität nennen.
Folgende Kurse stehen für uns zur Auswahl:

ME120 Linear System and Controls
ME122 Vibrations
ME130 Kinematic and Dynamic Analysis of Mechanism
ME135 Transport Phenomena
ME153 Finite Element Methods
ME170A Experimental Techniques
ME174 Machine Design
ME175A Professional Topics in Engineering
ME180 Optics and Lasers in Engineering

Da wir im 5. und 6. Semester auch das Modul Management haben, sind wir in der Kursliste für den Studiengang Management auch auf zwei Kurse gestoßen, die zu uns passen würden. Wäre es möglich, diese auch anzufragen, oder ist es für uns nicht möglich, solch ein Kurs zu belegen?
Die beiden Kurse wären:

MGT243 Product Management
MGT266 Project Management

Wenn dies nicht möglich sein sollte wäre es nicht schlimm, da die ME- Kurse ganz klar wichtiger sind.

Universidad Europea de Madrid
LAUREATE INTERNATIONAL UNIVERSITIES

UEM - UCR Study Abroad Program - 4º Grado en Ingeniería Mecánica

6 ECTS = 3 US semester credits = 4.5 US quarter credits

UEM Program: Bachelor's Degree in Mechanical Engineering Senior Year (Forth Year)				UCR Program: PGCM + Mechanical Engineering + Internship				ALTERNATIVES			
Course Code	Course Title	ECTS	Type	Course Code	Course Title	Units	ECTS	Course Code	Course Title	Units	ECTS
9975001401	Industrial Buildings and Structures	6	Mandatory	ME 153	FINITE ELEMENT METHODS	4	5.33	ME 122	VIBRATIONS	4	5.33
								ME 156	MECHANICAL BEHAVIOR OF MATERIALS	4	5.33
9975001403	Projects	6	Mandatory	ME 197	RESEARCH FOR UNDERGRADUATES: 2 projects	8	10.67	ME 175A ME 175B ME 175C	MECHANICAL ENGINEERING DESIGN + Lab	8	10.67
9975001405	Graduation Project	12	Mandatory								
9975001407	Total Quality and Environmental Management	6	Mandatory	ME 176	SUSTAINABLE PRODUCT DESIGN	4	5.33	ENVE 171	FUNDAMENTALS OF ENVIRONMENTAL ENGINEERING	4	5.33
								MGT 224	MANAGING FOR QUALITY IMPROVEMENT	4	5.33
9975001402	Professional Ethics and Practice	6	Mandatory	PGCM	POSTGRADUATE CERTIFICATE IN MANAGEMENT: - Global Human Resource Management - Global Marketing Management - Multinational Financial Management - Managing Change and Technology - Strategic Management	20	26.67				
-	1 Elective Course	6	Elective								
9975001406	Internship	12	Mandatory	ME 298-I	INDIVIDUAL INTERNSHIP	12	16.00				
9975001404	English		Mandatory		Exempted (English Requirement: UEM Lab - Level 15)						
TOTAL		54		TOTAL			64				

Universidad
Europea de Madrid
LAUREATE

UEM - UCR Study Abroad Program - 4º Grado en Ingeniería Electrónica Industrial y Automática

6 ECTS = 3 US semester credits = 4.5 US quarter credits

UEM: Bachelor's Degree in Electronic Engineering and Automation Senior Year (Forth Year)				UCR Program: PGCM + Electrical Engineering + Internship				ALTERNATIVES			
Course Code	Course Title	ECTS	Type	Course Code	Course Title	Units	ECTS	Course Code	Course Title	Units	ECTS
9975001401	Industrial Computing Systems	6	Mandatory	CS 122A	INTERMEDIATE EMBEDDED SYSTEMS & REAL TIME SYSTEMS	4	5.33				
9975001402	Robotic Systems	6	Mandatory	EE 144	INTRODUCTION TO ROBOTICS	4	5.33	EE 245	ADVANCED ROBOTICS		
9975001404	Projects	6	Mandatory	EE 197	RESEARCH FOR UNDERGRADUATES: 1 project	4	5.33				
9975001406	Graduation Project	12	Mandatory								
9975001408	Total Quality and Environmental Management	6	Mandatory	ME 176	SUSTAINABLE PRODUCT DESIGN	4	5.33	ENVE 171	FUNDAMENTALS OF ENVIRONMENTAL ENGINEERING	4	5.33
								ENVE 160B	ENVIRONMENTAL ENGINEERING LAB	4	5.33
9975001403	Professional Ethics and Practice	6	Mandatory	PGCM	POSTGRADUATE CERTIFICATE IN MANAGEMENT: - Global Human Resource Management - Global Marketing Management - Multinational Financial Management - Managing Change and Technology - Strategic Management	20	26.67				
9975001407	Internship	12	Mandatory	EE 198-I	INDIVIDUAL INTERNSHIP	12	16.00				
9975001405	English		Mandatory		Exempted (English Requirement: UEM Lab - Level 15)						
TOTAL		54		TOTAL			64				

Universidad Europea de Madrid
LAUREATE INTERNATIONAL UNIVERSITIES

UEM - UCR Study Abroad Program - 5º Ingeniería Industrial

6 ECTS = 3 US semester credits = 4.5 US quarter credits

5-year UEM Program: BSc + MSc in Industrial Engineering Senior Year (Fifth Year)					UCR Program: PGCM + Industrial Engineering + Internship				ALTERNATIVES			
Course Code	Course Title	Old Credits	ECTS	Type	Course Code	Course Title (Choose 4 Engineering courses)	Units	ECTS	Course Code	Course Title	Units	ECTS
1009002502	Ingeniería del Transporte	4.5	3.40	Mandatory	BUS 105	PRODUCTION AND OPERATION MANAGEMENT	4	5.33	MGT 258	LOGISTIC AND SUPPLY CHAIN MANAGEMENT	4	5.33
1009002503	Organización y Planificación de la Producción	6	4.53	Mandatory					EE 246	INTELLIGENT TRANSPORTATION SYSTEMS	4	5.33
									MGT 259	OPERATIONS PLANNING AND CONTROL	4	5.33
1009002505	Projects	7.5	5.66	Mandatory	ME 197	RESEARCH FOR UNDERGRADUATES: 1 project	4	5.33	ME 175A ME 175B ME 175C	MECHANICAL ENGINEERING DESIGN + Lab	8	10.67
1009002500	Graduation Project	6	4.53	Mandatory								
1009002506	Tecnología Energética	7.5	5.66	Mandatory	ME 117	COMBUSTION AND ENERGY SYSTEMS	4	5.33	ME 136	ENVIRONMENTAL IMPACTS OF ENERGY PRODUCTION AND CONVERSION		
1009002501	Ciencia y Tecnología del Medio Ambiente	6	4.53	Mandatory	ME 176	SUSTAINABLE PRODUCT DESIGN	4	5.33	ENVE 171	FUNDAMENTALS OF ENVIRONMENTAL ENGINEERING	4	5.33
1009002507	Control y Gestión de Calidad	6	4.53	Mandatory					BUS 127	INTRODUCTION TO QUALITY IMPROVEMENT	4	5.33
1009002504	Organización y Administración de Empresas	6	4.53	Mandatory	PGCM	POSTGRADUATE CERTIFICATE IN MANAGEMENT: - Global Human Resource Management - Global Marketing Management - Multinational Financial Management - Managing Change and Technology - Strategic Management	20	26.67				
1009002508	Dirección Financiera	6	4.53	Mandatory								
1009002509	Dirección Comercial	6	4.53	Mandatory								
1009002802	Comercio Electrónico	6	4.53	Optional								
	Free Choice Courses	6	4.53	Mandatory	ME 298-I	INDIVIDUAL INTERNSHIP	12	16.00				
1009002510	English II	6	4.53	Mandatory		Exempted (English Requirement: UEM Lab - Level 15)						
TOTAL		79.5	60.00		TOTAL			64.00				

48
63
67.5

Universidad Europea de Madrid

UEM - UCR Study Abroad Program - 5º Ingeniería en Organización Industrial

6 ECTS = 3 US semester credits = 4.5 US quarter credits

5-year UEM Program: BSc + MSc in Industrial Organization Engineering Senior Year (Fifth Year)					UCR Program: PGCM + Industrial Engineering + Internship				ALTERNATIVES			
Course Code	Course Title	Old Credits	ECTS	Type	Course Code	Course Title (Choose 4 Engineering courses)	Units	ECTS	Course Code	Course Title	Units	ECTS
1014002206	Tecnologías Industriales	15	12	Mandatory	ME 117	COMBUSTION AND ENERGY SYSTEMS	4	5.33				
1014002200	Proyecto Fin de Carrera	5	4	Mandatory	ME 136	ENVIRONMENTAL IMPACTS OF ENERGY PRODUCTION A	4	5.33				
1014002205	Proyectos	6	4.8	Mandatory	ME 197	RESEARCH FOR UNDERGRADUATES: 1 project	4	5.33				
1014002808	Gestión de Calidad Total	6	4.8	Optional	ME 176	SUSTAINABLE PRODUCT DESIGN	4	5.33	BUS 127	INTRODUCTION TO QUALITY IMPROVEMENT	4	5.33
1014002201	Estrategia y Políticas de Empresa	9	7.2	Mandatory	PGCM	POSTGRADUATE CERTIFICATE IN MANAGEMENT: - Global Human Resource Management - Global Marketing Management - Multinational Financial Management - Managing Change and Technology - Strategic Management	20	26.67				
1014002202	Organización del Trabajo y Factor Humano	6	4.8	Mandatory								
1014002203	Política Industrial y Tecnológica	6	4.8	Mandatory								
1014002204	Competitividad e Innovación en la Empresa	4.5	3.6	Mandatory								
1014002917	Energías Alternativas	7.5	6	Free Choice	ME 298-I	INDIVIDUAL INTERNSHIP	12	16.00				
1014002207	English	6	4.8	Mandatory		Exempted (English Requirement: UEM Lab - Level 15)						
TOTAL		71	56.8			TOTAL		64.00				

COURSE	COURSE TITLE	09F-11W Total	09F	10F	10S	10W	11F	11S	11W
BIEN010	OVERVIEW OF BIOENGINEERING	358	89	167			102		
BIEN105	CIRCULATION PHYSIOLOGY	83	38	45					
BIEN110	BIOMECHANICS OF THE HUMAN BODY	148				42	59		47
BIEN115	QUANTITATIVE PHYSIOLOGY	84			41			43	
BIEN120	BIOSYSTEMS AND SIGNAL ANALYSIS	83				41			42
BIEN125	BIOTECHNOL & MOLEC BIOENGINEERNG	77				35			42
BIEN130	BIOINSTRUMENTATION	81			38			43	
BIEN135	BIOPHYSICS AND BIOTHERMODYNAMICS	110	31	31			48		
BIEN140A	BIOMATERIALS	79			40			39	
BIEN140B	BIOMATERIALS	66	21	20			25		
BIEN159	DYNAMICS OF BIOLOGICAL SYSTEMS	107	29	32			46		
BIEN160	BIOMEDICAL IMAGING	38				16			22
BIEN165	BIOMOLECULAR ENGINEERING	20			20				
BIEN175A	SENIOR DESIGN	66				30			36
BIEN175B	SENIOR DESIGN	61			29			32	
CEE 010	INTRO TO CHEM & ENVIRON ENGRNG	199		70			60		69
CEE 125	ANALY METHS FOR CHEM & ENV ENGRS	35				17			18
CEE 132	GREEN ENGINEERING	31			23			8	
CEE 135	CHEMISTRY OF MATERIALS	96	17	34			45		
CEE 140A	BIOMATERIALS	2			0			2	
CEE 140B	BIOMATERIALS	0		0			0		
CEE 158	PROFESSNL DEVLPMNT FOR ENGINEERS	102				39			63
CEE 159	DYNAMICS OF BIOLOGICAL SYSTEMS	2	0	1			1		
CHE 100	ENGINEERING THERMODYNAMICS	98				45			53
CHE 102	CATALYTIC REACTION ENGINEERING	49	17	15			17		
CHE 105	INTRO TO NANOSCALE ENGINEERING	60				29			31
CHE 110A	CHEMICAL PROCESS ANALYSIS	164	44	43			77		
CHE 110B	CHEMICAL PROCESS ANALYSIS	63				33			30
CHE 114	APPLIED FLUID MECHANICS	199	51	50			98		
CHE 116	HEAT TRANSFER	60			29			31	
CHE 117	SEPARATION PROCESSES	72	28	21			23		
CHE 118	PROCESS DYNAMICS AND CONTROL	49				26			23
CHE 120	MASS TRANSFER	82				42			40
CHE 122	CHEMICAL ENGINEERING KINETICS	97			39			58	
CHE 124	BIOCHEMICL ENGINEERNG PRINCIPLES	6	6						
CHE 130	ADV ENGINEERING THERMODYNAMICS	59			31			28	
CHE 175A	CHEMICAL PROCESS DESIGN	56				29			27
CHE 175B	CHEMICAL PROCESS DESIGN	56			30			26	
CS 005	INTRO TO COMPUTER PROGRAMMING	672	119	120	57	59	146	86	85
CS 006	EFFECTIVE USE OF WORLD WIDE WEB	884	120	118	116	113	149	149	119
CS 008	INTRODUCTION TO COMPUTING	4827	678	630	707	710	677	709	716
CS 010	INTRO TO CS FOR SCI,MATH&ENGR I	1404	213	236	111	216	240	172	216
CS 011	INTRO TO DISCRETE STRUCTURES	79	0	0	3	14	35	0	27
CS 012	INTRO TO CS FOR SCI,MATH&ENGR II	497	44	45	69	111	30	89	109
CS 013	INTRO COMPTR SCIEN FOR ENGR MAJS	99			41			58	

COURSE	COURSE TITLE	09F-11W Total	09F	10F	10S	10W	11F	11S	11W
CS 014	INTRO-DATA STRUCTRS & ALGORITHMS	338	48	41	71	31	60	60	27
CS 030	INTRO TO COMPUTATNL SCI & ENGRNG	24			12			12	
CS 061	MACHINE ORG&ASSEMBLY LANG PRGRM	415	67	71	41	59	60	56	61
CS 066	INTRO TO 3-D DIGITAL MODELING	3						3	
CS 100	SOFTWARE CONSTRUCTION	259	19	60	61		59	60	
CS 111	DISCRETE STRUCTURES	154	0	22	0	21	47	27	37
CS 120A	LOGIC DESIGN	117	21	11		31	30		24
CS 120B	INTRODUCTION TO EMBEDDED SYSTEMS	84			19	18		28	19
CS 122A	INT EMBEDDED & REAL-TIME SYSTEMS	105	30	45			30		
CS 130	COMPUTER GRAPHICS	81	51						30
CS 141	INTERMED DATA STRUCS & ALGORITHM	160	25	30	45		30	30	
CS 150	THEORY-AUTOMATA&FORMAL LANGUAGES	127				61		26	40
CS 152	COMPILER DESIGN	62				32			30
CS 153	DESIGN OF OPERATING SYSTEMS	137			7	56		15	59
CS 160	CONCURNT PROGRMNG&PARALEL SYSTMS	13							13
CS 161	DESIGN & ARCHTCTR OF COMP SYSTMS	124	19	41	18		29	17	
CS 161L	LAB-DESGN & ARCHTCTR COMP SYSTMS	124	18	41	19		30	16	
CS 164	COMPUTER NETWORKS	58				27			31
CS 165	COMPUTER SECURITY	65	15	20			30		
CS 166	DATABASE MANAGEMENT SYSTEMS	161	22	30	28		30	51	
CS 169	MOBILE WIRELESS NETWORKS	9						9	
CS 170	INTRO TO ARTIFICIAL INTELLIGENCE	46			36				10
CS 177	MODELLING AND SIMULATION	23						23	
CS 180	INTRO TO SOFTWARE ENGINEERING	60				30			30
CS 181	PRINCPLS OF PROGRAMMNG LANGUAGES	23			23				
EE 001A	ENGINEERING CIRCUIT ANALYSIS I	675	114	131	108		177	145	
EE 001B	ENGINEERING CIRCUIT ANALYSIS II	138	13	18		32	28		47
EE 002	ELECTRICAL & ELECTRONIC CIRCUITS	4			4				
EE 020	LIN METH ENGR ANLY & DSGN MATLAB	94			15			79	
EE 100A	ELECTRONIC CIRCUITS	172	45	34		16	47		30
EE 100B	ELECTRONIC CIRCUITS	111			14	42		21	34
EE 105	MODLNG & SIMULATN-DYNAMIC SYSTMS	81				40			41
EE 110A	SIGNALS AND SYSTEMS	170	40	42		10	52		26
EE 110B	SIGNALS AND SYSTEMS	111			11	37		29	34
EE 114	PROB, RAND VARI &PROCSS IN ELEN	72			27			45	
EE 115	INTRO TO COMMUNICATION SYSTEMS	104	35	31			38		
EE 116	ENGINEERING ELECTROMAGNETICS	60			33			27	
EE 117	ELECTROMAGNETICS II	8				8			
EE 120A	LOGIC DESIGN	107	15	20		26	23		23
EE 120B	INTRODUCTION TO EMBEDDED SYSTEMS	34			9	15		2	8
EE 128	DATA ACQUIS,INSTRUM,&PROC CONTRL	82	25	28			29		
EE 132	AUTOMATIC CONTROL	72			36			36	
EE 133	SOLID-STATE ELECTRONICS	81	37	23			21		
EE 134	DIGTL INTGRTD CIRCUT LAYOUT &DES	20				15			5
EE 135	ANALG INTGRTD CIRCUT LAYOUT &DES	20			17			3	

COURSE	COURSE TITLE	09F-11W Total	09F	10F	10S	10W	11F	11S	11W
EE 136	SEMICONDUCTOR DEVICE PROCESSING	7						7	
EE 137	INTRO TO SEMICOND OPTOELECT DEV	12							12
EE 138	ELEC PROPERTIES OF MATERIALS	70	24	16			30		
EE 139	MAGNETIC MATERIALS	58				29			29
EE 140	COMPUTER VISUALIZATION	19	19						
EE 141	DIGITAL SIGNAL PROCESSING	114	35	35			44		
EE 144	INTRODUCTION TO ROBOTICS	42			21			21	
EE 146	COMPUTER VISION	20				20			
EE 150	DIGITAL COMMUNICATIONS	21				7			14
EE 151	INTRODUCTION TO DIGITAL CONTROL	27			12			15	
EE 160	FIBER-OPTIC COMMUNICATION SYSTMS	9	4	5					
ENGR108	TECHNOLOGY IN PREMODERN CIVILZNS	102			33		51	18	
ENGR109	TECHNOLOGY IN MODERN EURO & AME	27						27	
ENGR118	ENGINEERING MODELING & ANALYSIS	163	40	43			80		
ENGR171	GLOBALIZATION	27							27
ENGR180	TECHNICAL COMMUNICATIONS	83	32		51				
ENGR180W	TECHNICAL COMMUNICATIONS	178		83			48		47
ENVE120	UNIT OPERATNS&PROC-ENVIRON ENG	47	19	12			16		
ENVE121	BIOLOGICAL UNIT PROCESSES	23			12			11	
ENVE130	ADV ENGINEERING THERMODYNAMICS	30			14			16	
ENVE133	FUNDAMNTLS OF AIR POLLUTN ENGRNG	54				24			30
ENVE134	TECHNOLGY OF AIR POLLUTN CONTROL	19			11			8	
ENVE135	FATE&TRANSPRT-ENVIR CONTAMINANTS	25				13			12
ENVE142	WATER QUALITY ENGINEERING	31				12			19
ENVE144	SOLID WASTE MANAGEMENT	9			3			6	
ENVE146	WATER QUALITY SYSTEMS DESIGN	33			15			18	
ENVE171	FUNDAMENTALS ENVIRONMENTAL ENGR	52					52		
ENVE171	INTRO TO ENVIRONMNTL ENGINEERING	50	17	33					
ENVE175A	SENIOR DESIGN PROJECT	25				13			12
ENVE175B	SENIOR DESIGN PROJECT	25			13			12	
ME 002	INTRO TO MECHANICAL ENGINEERING	458			54	120		98	186
ME 003	HOW THINGS WORK: TECH PRINCIPLES	9				9			
ME 004	ENERGY AND ENVIRONMENT	119					119		
ME 009	ENGINEERING GRAPHICS AND DESIGN	401			233			168	
ME 010	STATICS	348			70	106		46	126
ME 018	INTRO TO ENGINEERING COMPUTATION	355	126	98			131		
ME 100A	THERMODYNAMICS	316	91	110			115		
ME 103	DYNAMICS	228			66		43	119	
ME 110	MECHANICS OF MATERIALS	188				80			108
ME 113	FLUID MECHANICS	173			28	60			85
ME 114	INTRO MATERIALS SCIEN & ENGRNG	332	94	112			126		
ME 116A	HEAT TRANSFER	149			70			79	
ME 116B	HEAT TRANSFER	85				44			41
ME 117	COMBUSTION AND ENERGY SYSTEMS	30						30	
ME 118	MECHNCL ENGRNG MODELNG & ANALYS	182				84			98

COURSE	COURSE TITLE	09F-11W Total	09F	10F	10S	10W	11F	11S	11W
ME 120	LINEAR SYSTEMS AND CONTROLS	133			68				65
ME 122	VIBRATIONS	114				56			58
ME 133	INTRODUCTION TO MECHATRONICS	39	10	29					
ME 135	TRANSPORT PHENOMENA	160	41	51			68		
ME 136	ENV IMPACTS-ENERGY PROD & CONVER	56			16				40
ME 137	ENVIRONMENTAL FLUID MECHANICS	31				26		5	
ME 138	TRANSPORT PHENOMENA-LIVNG SYSTMS	31	20				11		
ME 153	FINITE ELEMENT METHODS	111			47			64	
ME 156	MECHANICAL BEHAVIOR OF MATERIALS	106			40		26	40	
ME 170A	EXPERIMENTAL TECHNIQUES	157			69			88	
ME 174	MACHINE DESIGN	159			75			84	
ME 175A	PROFESSIONAL TOPICS ENGINEERING	198	61	62			75		
ME 175B	MECHANICAL ENGINEERING DESIGN	144	28	28		29	30		29
ME 175C	MECHANICAL ENGINEERING DESIGN	116			28	27		28	33
MSE 001	FUNDAMTLS OF MATL SCIENCE & ENGR	71	20	28			23		
MSE 160	NANOSTRUCTURE CHARACTERIZATN LAB	22			7			15	
MSE 161	ANALYTICAL MATERIALS CHARACTERZN	13		13					

2012-13 BCOE GRADUATE STUDENT RECRUITMENT STATUS

March 26, 2012

TOTAL

Program		BIEN	CEE	CPSC	ELEN	MSE	MCEN	BCOE
PHD	Target	19	14	20	15	10	12	90
	Applications	49	127	231	282	77	66	832
	Admits	10	36	45	28	8	4	131
	SIR	0	2	8	4	2	2	18
	Decline	0	1	7	5	0	0	13
	In Process	2	1	5	8	2	3	21
MS	Target	20	3	20	15	6	13	77
	Applications	48	64	390	342	28	76	948
	Admits	4	14	7	6	2	8	41
	SIR	1	0	0	4	0	2	7
	Decline	0	1	0	0	0	0	1
	In Process	1	1	70	3	1	2	78
PHD	SIR/Target, %	0%	14%	40%	27%	20%	17%	20%
MS	SIR/Target, %	5%	0%	0%	27%	0%	15%	9%
ALL	SIR/Target, %	3%	12%	20%	27%	13%	16%	15%

DOMESTIC

Program		BIEN	CEE	CPSC	ELEN	MSE	MCEN	BCOE
PHD	Applications	29	40	42	25	13	15	164
	Admits	10	24	20	5	3	4	66
	SIR	0	1	6	1	0	2	10
	Decline	0	1	0	0	0	0	1
	In Process	0	1	1	3	0	3	8
MS	Applications	32	18	48	17	7	20	142
	Admits	4	8	7	4	2	8	33
	SIR	1	0	0	4	0	2	7
	Decline	0	0	0	0	0	0	0
	In Process	1	0	0	1	1	2	5

INTERNATIONAL

Program		BIEN	CEE	CPSC	ELEN	MSE	MCEN	BCOE
PHD	Applications	20	87	189	257	64	51	668
	Admits	0	12	25	23	5	0	65
	SIR	0	1	2	3	2	0	8
	Decline	0	0	7	5	0	0	12
	In Process	2	0	4	5	2	0	13
MS	Applications	16	46	342	325	21	56	806
	Admits	0	6	0	2	0	0	8
	SIR	0	0	0	0	0	0	0
	Decline	0	1	0	0	0	0	1
	In Process	0	1	70	2	0	0	73

Summary of UG Enrollment per TA FTE
Fall 2011

Department	UG Enrollment	TA FTE	UG Enrollment per TA FTE
CSE (CS 6 and CS 8)	826	3.47	238.0
CSE (less CS 6 & CS 8)	1,109	8.98	133.4
CSE (Total)	2,024	12.45	162.6
BIEN	321	3.1	103.5
CEE	397	1.75	226.9
EE	510	5.125	99.5
ME	709	4.0	177.3
ENGR 108/118	134	.75	178.7
Ave (less CSE)			140.6
Ave (with CSE Total)			150.7