

## 2018 FALL SEMESTER MAIN MISSOURI S&T CAMPUS CLASS OFFERINGS

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
<b>Aerosp Studies-Air Force ROTC</b>									
1110 <b>Foundations Of The U.S. Air Force I</b>	1.0- 1.0	74565	LEC	1A	W	10:00 - 10:50 am	HARR	00208	Ice,K
	1.0- 1.0	74567	LEC	1B	W	02:00 - 02:50 pm	HARR	00208	Ice,K
	1.0- 1.0		LAB	3A	Th	03:30 - 05:30 pm	EMGT	00103	Logsdon,C
	1.0- 1.0		LAB	3B	Th	03:30 - 05:30 pm	EMGT	00103	Logsdon,C
2110 <b>The Evolution Of USAF Air And Space Power I</b>	1.0- 1.0	76121	LEC	1A	W	11:00 - 11:50 am	HARR	00208	Unger,B
	1.0- 1.0	74570	LEC	1B	W	03:00 - 03:50 pm	HARR	00208	Unger,B
	1.0- 1.0		LAB	3A	Th	03:30 - 05:30 pm	EMGT	00103	Logsdon,C
	1.0- 1.0		LAB	3B	Th	03:30 - 05:30 pm	EMGT	00103	Logsdon,C
3110 <b>Air Force Leadership Studies I</b>	3.0- 3.0	74572	LEC	1A	T	03:00 - 05:30 pm	HARR	00208	Ice,K
	3.0- 3.0		LAB	3A	Th	03:30 - 05:30 pm	EMGT	00103	Logsdon,C
4110 <b>National Security Affairs/Preparation For Active Duty I</b>	3.0- 3.0	74574	LEC	1A	T	05:30 - 08:00 pm	ARR		Logsdon,C
	3.0- 3.0		LAB	3A	Th	03:30 - 05:30 pm	EMGT	00103	Logsdon,C
<b>Aerospace Engineering</b>									
2360 <b>Dynamics</b>	3.0- 3.0	75743	LEC	1A	MWF	08:00 - 08:50 am	TMH	00254	Du,X
Prerequisite: Grade of "C" or better in each of Civ Eng 2200, Math 2222.	3.0- 3.0	75744	LEC	1B	MWF	09:00 - 09:50 am	TMH	00254	Du,X
(Co-listed with Mech Eng 2360)	3.0- 3.0	77244	LEC	1C	TTh	09:30 - 10:45 am	BERTELS	00112A	Hutcheson,R
			LEC	1C	TTh	09:30 - 10:45 am	BERTELS	00112B	
2861 <b>Aerospace Vehicle Performance</b>	3.0- 3.0	74526	LEC	1A	MWF	08:00 - 08:50 am	MCNT	00204	Riggins,D
Prerequisite: A grade of "C" or better in both Math 1215 and Physics 1135.									
3002 <b>Cooperative Engineering Training</b>	0.0- 6.0	74527	IND	6A	ARR	ARR	ARR		Isaac,K
3131 <b>Aerodynamics I</b>	3.0- 3.0	74529	LEC	1A	TTh	09:30 - 10:45 am	BCH	00125	Duan,L
Prerequisites: A grade of "C" or better in each of Aero Eng 2861, Math 1214, Math 1215, Math 2222 and Physics 1135.	3.0- 3.0	77334	LEC	1B	TTh	11:00 - 12:15 pm	TMH	00250	Schmidt,J
3613 <b>Aerospace Mechanics I</b>	3.0- 3.0	74528	LEC	1A	TTh	08:00 - 09:15 am	EMGT	00103	Pernicka,H
Prerequisites: Math 3304; a grade of "C" or better in each of Aero Eng 2360 (or Mech Eng 2360), Math 1214 (or 1208), 1215 (or 1221),2222, and Physics 1135.									
3877 <b>Principles of Engineering Materials</b>	3.0- 3.0	74541	LEC	1A	MWF	08:00 - 08:50 am	MCNT	00216	Newkirk,J
(Co-listed with Chem Eng 5300, Physics 4523, Met Eng 5810, Cer Eng 5810)									
4000 <b>Special Problems</b>	0.0- 6.0	74535	IND	6A	ARR	ARR	ARR		Pernicka,H
Consent of instructor required.	0.0- 6.0	74536	IND	6B	ARR	ARR	ARR		
4099 <b>Undergraduate Research</b>	0.0- 6.0	74544	IND	6A	ARR	ARR	ARR		Balakrishnan,S
	0.0- 6.0	74545	IND	6B	ARR	ARR	ARR		Chandrashekhara,K
	0.0- 6.0	74546	IND	6C	ARR	ARR	ARR		DeMars,K
	0.0- 6.0	74547	IND	6D	ARR	ARR	ARR		Dharani,L
	0.0- 6.0	74548	IND	6E	ARR	ARR	ARR		Duan,L
	0.0- 6.0	74549	IND	6F	ARR	ARR	ARR		Hosder,S
	0.0- 6.0	74550	IND	6G	ARR	ARR	ARR		Isaac,K
	0.0- 6.0	76010	IND	6H	ARR	ARR	ARR		Pernicka,H
	0.0- 6.0	76011	IND	6J	ARR	ARR	ARR		Riggins,D
	0.0- 6.0	76502	IND	6K	ARR	ARR	ARR		Rovey,J
4253 <b>Aerospace Structures II</b>	3.0- 3.0	74531	LEC	1A	TTh	09:30 - 10:45 am	BERTELS	00B10	Wojnar,C
Prerequisite: Aero Eng 3251.									
4535 <b>Aircraft and Space Vehicle Propulsion</b>	3.0- 3.0	74530	LEC	1A	MWF	09:00 - 09:50 am	TMH	00295	Riggins,D
Prerequisite: Mech Eng 3131, or Aero Eng 3171.									
4780 <b>Aerospace Systems Design I</b>	2.0- 2.0	74532	LEC	1A	MW	10:00 - 10:50 am	TMH	00249	Meeks,W
Prerequisites: Aero Eng 3251, 3361, 3171.									
4790 <b>Spacecraft Design I</b>	3.0- 3.0	74542	LEC	1A	F	10:00 - 10:50 am	ARR		Pernicka,H
Prerequisites: Aero Eng 3251, 3361, and 3171 for Aero Eng majors; consent of instructor for non-Aero Eng majors.			LEC	1A	W	04:00 - 06:00 pm	ARR		

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4883 <b>Experimental Methods in Aerospace Engineering II</b> Prerequisites: Aero Eng 3251, 3361, 3171, & 4882.	2.0- 2.0	74533	LAB	3A	M	11:00 - 11:50 am	H-SS	000G5	Isaac,K
			LAB	3A	M	01:00 - 03:00 pm	ARR		
	2.0- 2.0	74534	LAB	3B	M	11:00 - 11:50 am	H-SS	000G5	Isaac,K
			LAB	3B	M	03:00 - 05:00 pm	ARR		
	2.0- 2.0	76606	LAB	3C	M	11:00 - 11:50 am	H-SS	000G5	Isaac,K
			LAB	3C	T	01:00 - 03:00 pm	ARR		
	2.0- 2.0	75719	LAB	3D	M	11:00 - 11:50 am	H-SS	000G5	
			LAB	3D	T	03:00 - 05:00 pm	ARR		Isaac,K
	2.0- 2.0	76607	LAB	3E	M	11:00 - 11:50 am	H-SS	000G5	Isaac,K
			LAB	3E	Th	01:00 - 03:00 pm	ARR		
	2.0- 2.0	76608	LAB	3F	M	11:00 - 11:50 am	H-SS	000G5	Isaac,K
			LAB	3F	Th	03:00 - 05:00 pm	ARR		
4885 <b>Assessment</b> Prerequisites: Aero Eng 3171, Aero Eng 3361, Aero Eng 4535, Aero Eng 4253.	1.0- 1.0	77245	LEC	1A	W	03:00 - 03:50 pm	MCNT	00204	Isaac,K
5131 <b>Intermediate Thermofluid Mechanics</b> Prerequisite: Mech Eng 3131 or Aero Eng 3131. (Co-listed with Mech Eng 5131)	3.0- 3.0	76487	LEC	1A	MWF	03:00 - 03:50 pm	TMH	00260	Homan,K
5139 <b>Computational Fluid Dynamics</b> Prerequisites: Comp Sci 1570 or 1970 or 1971; one course in fluid mechanics. (Co-listed with Mech Eng 5139)	3.0- 3.0	74537	LEC	1A	MWF	01:00 - 01:50 pm	FUL	00107A	Isaac,K
5169 <b>Introduction to Hypersonic Flow</b> Prerequisites: Aero Eng 3171.	3.0- 3.0	75998	LEC	1A	TTh	11:00 - 12:15 pm	BERTELS	00B12B	Hosder,S
5171 <b>V/Stol Aerodynamics</b> Prerequisite: Aero Eng 3171.	3.0- 3.0	78200	LEC	1A	W	07:00 - 09:30 pm	FUL	00107A	Pitt,D
5212 <b>Introduction to Finite Element Analysis</b> Prerequisite: Mech Eng 3708 or Aero Eng 4253 or consent of instructor for majors that do not require either of these courses, or graduate standing. (Co-listed with Mech Eng 5212)	3.0- 3.0	74539	LEC	1A	TTh	11:00 - 12:15 pm	BCH	00213	Chandrashekhara,K
5238 <b>Fatigue Analysis</b> Prerequisite: Civ Eng 2210. (Co-listed with Mech Eng 5238)	3.0- 3.0	78107	LEC	1A	TTh	02:00 - 03:15 pm	BCH	00213	Dharani,L
5307 <b>Vibrations I</b> Prerequisites: Mech Eng 3411 and 3313, or Aero Eng 3613 and Math 3304. (Co-listed with Mech Eng 5307)	3.0- 3.0	76486	LEC	1A	TTh	02:00 - 03:15 pm	TMH	00250	Stutts,D
5313 <b>Intermediate Dynamics of Mechanical and Aerospace Systems</b> Prerequisite: Mech Eng 3313 or Aero Eng 3613. (Co-listed with Mech Eng 5313).	3.0- 3.0	78225	LEC	1A	TTh	03:30 - 04:45 pm	BCH	00317	DeMars,K
5361 <b>Flight Dynamics-Stability And Control</b> Prerequisite: Aero Eng 3361.	3.0- 3.0	74540	LEC	1A	TTh	12:30 - 01:45 pm	BERTELS	00B12A	DeMars,K
5481 <b>Mechanical and Aerospace Control Systems</b> Prerequisite: Mech Eng 4479 or Aero Eng 3361. (Co-listed with Mech Eng 5481)	3.0- 3.0	74543	LEC	1A	TTh	03:30 - 04:45 pm	BCH	00121	Balakrishnan,S
5525 <b>Intermediate Heat Transfer</b> Prerequisite: Mech Eng 3525. (Co-listed with Mech Eng 5525)	3.0- 3.0	76861	LEC	1A	MWF	11:00 - 11:50 am	TMH	00254	Crosbie,A
5527 <b>Combustion Processes</b> Prerequisite: Mech Eng 3521. (Co-listed with Mech Eng 5527)	3.0- 3.0	76408	LEC	1A	TTh	09:30 - 10:45 am	BERTELS	00B12A	Koylu,U
5570 <b>Plasma Physics I</b> Prerequisite: Aero Eng 3131 or Mech Eng 3131 or Physics 3211 or Nuc Eng 3221 or Elec Eng 3600. (Co-listed with Mech Eng 5570, Nuc Eng 4370, Physics 4543)	3.0- 3.0	77978	LEC	1A	TTh	08:00 - 09:15 am	TMH	00249	Han,D
5715 <b>Concurrent Engineering</b> Prerequisites: Mech Eng 3313 or Aero Eng 3131 and Civ Eng 2210 (Co-listed with Mech Eng 5715)	3.0- 3.0	75675	LEC	1A	Th	07:00 - 09:30 pm	BERTELS	00B12B	Appelman,H
6000 <b>Special Problems</b>	0.0- 6.0	77055	IND	6A	ARR	ARR	ARR		Dharani,L

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6001 <b>Special Topics</b> Prerequisites: Mech Eng 5131 or Aero Eng 5131; Mech Eng 5139 or Aero Eng 5139.	3.0- 3.0	77982	LEC	1A	MWF	12:00 - 12:50 pm	FUL	00107A	Homan,K
									Adv Comp Thermofluid
6040 <b>Oral Examination</b> Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate office permission required.	0.0- 0.0	74564	IND	6A	ARR	ARR	ARR		
6099 <b>Research</b> Prerequisite: Consent of instructor required.	0.0-15.0	74552	IND	6A	ARR	ARR	ARR		Balakrishnan,S
	0.0-15.0	74553	IND	6B	ARR	ARR	ARR		Birman,V
	0.0-15.0	74554	IND	6C	ARR	ARR	ARR		Chandrashekhara,K
	0.0-15.0	74555	IND	6D	ARR	ARR	ARR		DeMars,K
	0.0-15.0	74556	IND	6E	ARR	ARR	ARR		Dharani,L
	0.0-15.0	74557	IND	6F	ARR	ARR	ARR		Duan,L
	0.0-15.0	74558	IND	6G	ARR	ARR	ARR		Eversman,W
	0.0-15.0	74559	IND	6H	ARR	ARR	ARR		Han,D
	0.0-15.0	74560	IND	6J	ARR	ARR	ARR		Hosder,S
	0.0-15.0	74561	IND	6K	ARR	ARR	ARR		Isaac,K
	0.0-15.0	74562	IND	6L	ARR	ARR	ARR		Krishnamurthy,K
	0.0-15.0	74563	IND	6M	ARR	ARR	ARR		Pernicka,H
	0.0-15.0	76223	IND	6N	ARR	ARR	ARR		Riggins,D
	0.0-15.0	76604	IND	6P	ARR	ARR	ARR		Wojnar,C
6135 <b>Turbulent Flows - Theory, Measurements and Modeling</b> Prerequisite: Mech Eng 5131 or Aero Eng 5131 or Mech Eng 5139 or Aero Eng 5139 or equivalent. (Co-listed with Mech Eng 6135)	3.0- 3.0	78111	LEC	1A	TTh	08:00 - 09:15 am	TMH	00250	Duan,L
6222 <b>Theory of Elasticity</b> Prerequisites: Civ Eng 2210. (Co-listed with Mech Eng 6222)	3.0- 3.0	78113	LEC	1A	TTh	09:30 - 10:45 am	LIB	000G14	Dharani,L
6284 <b>Analysis of Laminated Composite Structures</b> Prerequisite: Mech Eng 5282 or Aero Eng 5282. (Co-listed with Mech Eng 6284)	3.0- 3.0	75849	LEC	1A	W	04:00 - 06:30 pm	BERTELS	00B12B	Birman,V
6447 <b>Markov Decision Processes</b> Prerequisite: Graduate standing in background of probability or statistics. (Co-listed with Comp Eng 6310, Mech Eng 6447, Eng Mgt 6410 and Comp Sci 6202)	3.0- 3.0	76100	LEC	1A	M	04:00 - 06:30 pm	TMH	00260	Wunsch,D

## Architectural Engineering

2003 <b>Engineering Communications and Computations</b> Prerequisite: Sophomore standing. (Co-listed with Civ Eng 2003)	3.0- 3.0		LEC	1A	TTh	11:00 - 11:50 am	BCH	00120	Schonberg,W
	3.0- 3.0	74577	LAB	3A	T	02:00 - 03:50 pm	BCH	00115	Schonberg,W
			<b>See 'Notes' for Class Schedule</b>						
	3.0- 3.0	75703	LAB	3B	Th	02:00 - 03:50 pm	BCH	00115	Schonberg,W
			<b>See 'Notes' for Class Schedule</b>						
	3.0- 3.0	75893	LAB	3C	Th	04:00 - 05:50 pm	BCH	00115	Schonberg,W
			<b>See 'Notes' for Class Schedule</b>						
3201 <b>Structural Analysis I</b>	3.0- 3.0		LEC	1A	TTh	09:30 - 10:20 am	BCH	00318	
	3.0- 3.0	77752	LAB	3A	Th	01:00 - 03:50 pm	BCH	00216	
3210 <b>Structural Design in Metals</b> Prerequisite: Arch Eng 3201 with grade of "C" or better. (Co-listed with Civ Eng 3210)	3.0- 3.0		LEC	1A	TTh	11:00 - 12:15 pm	BCH	00101	Yan,G
	3.0- 3.0	74583	LAB	3A	F	01:00 - 03:50 pm	BCH	00121	Yan,G
3220 <b>Reinforced Concrete Design</b> Prerequisite: Arch Eng 3201 with grade of "C" or better. (Co-listed with Civ Eng 3220)	3.0- 3.0		LEC	1A	MW	09:00 - 09:50 am	BCH	00315	Sneed,L
	3.0- 3.0		LEC	1B	MW	09:00 - 09:50 am	BCH	00315	Sneed,L
	3.0- 3.0	74585	LAB	3A	Th	05:00 - 06:50 pm	BCH	00101	Sneed,L
	3.0- 3.0	78123	LAB	3B	Th	01:00 - 03:50 pm	BCH	00318	Sneed,L
3804 <b>Architectural Design II</b> Prerequisite: Art 3203.	3.0- 3.0		LEC	1A	T	02:00 - 02:50 pm	BCH	00318	Baur,S
	3.0- 3.0	74579	LAB	3A	MW	03:00 - 05:50 pm	BCH	00321	Baur,S
	3.0- 3.0	74580	LAB	3B	TTh	03:00 - 05:50 pm	BCH	00321	Pickerill,H

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
4010 <b>Senior Seminar: Engineering In A Global Society</b> Prerequisite: Senior standing. (Co-listed with Civ Eng and Env Eng 4010)	1.0- 1.0	74581	RSD	2A	W	12:00 - 12:50 pm	BCH	00120	Burken,J
4097 <b>Senior Design Project</b> Prerequisite: Arch Eng 4448 or Civ Eng 4448. (Co-listed with Civ Eng 4097 and Env Eng 4097)	3.0- 3.0	75707	LEC	1A	M	01:00 - 03:50 pm	BCH	00120	Showalter,W
			LEC	1A	M	01:00 - 03:50 pm	BCH	00122	
			LEC	1A	M	01:00 - 03:50 pm	BCH	00123	
4099 <b>Undergraduate Research</b>	0.0- 6.0	75717	IND	6A	ARR	ARR	ARR		Baur,S
	0.0- 6.0	76296	IND	6B	ARR	ARR	ARR		Myers,J
4448 <b>Fundamentals Of Contracts And Construction Engineering</b> Prerequisite: Senior Standing. (Co-listed with Civ Eng 4448)	3.0- 3.0	74586	LEC	1A	TTh	08:00 - 09:15 am	BCH	00213	Showalter,W
	3.0- 3.0	77470	LEC	1B	TTh	09:30 - 10:45 am	BCH	00101	Showalter,W
4850 <b>Building Electrical Systems</b> Prerequisites: Arch Eng 4800 and Arch Eng 4820	3.0- 3.0	78223	LEC	1A	MWF	11:00 - 11:50 am	BCH	00317	Gillis,W
5205 <b>Structural Analysis II</b> Prerequisites: Civ Eng 3201 or Arch Eng 3201. (Co-listed with Civ Eng 5205)	3.0- 3.0	78127	LEC	1A	TTh	12:30 - 01:45 pm	BERTELS	00B12B	Schonberg,W
5206 <b>Low-Rise Building Analysis And Design</b> Prerequisite: Preceded and/or accompanied by Civ -Arch Eng 3210 or Civ-Arch Eng 3220. (Co-listed with Civ Eng 5206)	3.0- 3.0	77224	LEC	1A	MWF	11:00 - 11:50 am	CS	00209	Thomas,J
5270 <b>Structural Masonry Design</b> Prerequisites: Arch Eng 3201 or Civ Eng 3201. (Co-listed with Civ Eng 5270)	3.0- 3.0	77966	LEC	1A	Th	04:00 - 06:30 pm	BERTELS	00B12A	McMillian,D
5442 <b>Construction Planning and Scheduling Strategies</b> Prerequisite: Civ Eng or Arch Eng 4448. (Co-listed with Civ Eng 5442)	3.0- 3.0	78128	LEC	1A	M	04:00 - 06:30 pm	IDE	00105	Bodapati,S
5445 <b>Construction Methods</b> Prerequisite: Arch Eng 4448 with a grade of "C" or better. (Co-listed with Civ Eng 5445)	3.0- 3.0	74587	LEC	1A	MWF	10:00 - 10:50 am	BCH	00315	Showalter,W
5448 <b>Green Engineering: Analysis of Constructed Facilities</b> Prerequisites: Civ Eng 4448 or Arch Eng 4448; and Junior Standing. (Co-listed with Civ Eng 5448)	3.0- 3.0	76416	LEC	1A	MWF	10:00 - 10:50 am	BCH	00213	Scott-Showalter,P
5449 <b>Engineering and Construction Contract Specifications</b> Prerequisite: Arch Eng 4448 with a grade of "C" or better. (Co-listed with Civ Eng 5449)	3.0- 3.0	77253	LEC	1A	MWF	09:00 - 09:50 am	BCH	00215	El-adaway,I
5642 <b>Sustainability, Population, Energy, Water, and Materials</b> Prerequisite: Senior or graduate standing. (Co-listed with Env Eng 5642 and Civ Eng 5642)	3.0- 3.0	76394	LEC	1A	TTh	09:30 - 10:45 am	BCH	00213	Fitch,M
5850 <b>Residential Renewable Energy Systems</b> Prerequisites: Senior standing and consent of instructor, or Mech Eng 2527 or Civ Eng 3842.	3.0- 3.0		LEC	1A	MW	11:00 - 11:50 am	BCH	00110	Baur,S
	3.0- 3.0	78031	LAB	3A	ARR	ARR	ARR		Baur,S
6001 <b>Special Topics</b> Prerequisites: Civ Eng/ArchE 5208 or equivalent.	3.0- 3.0	78152	LEC	1B	TTh	02:00 - 03:15 pm	LIB	000G14	Chen,G

## Art

1120 <b>Drawing I</b>	3.0- 3.0	74588	LEC	1A	W	02:00 - 04:30 pm	CH	00213	Arthur,S
			<b>MOTR PERF 105D: Studio Art-Drawing</b>						
1140 <b>Painting I</b>	3.0- 3.0	74589	LEC	1A	W	04:45 - 07:30 pm	CH	00213	Shoemaker,C
1164 <b>Sculpture</b>	3.0- 3.0	76208	LEC	1A	TTh	02:00 - 03:15 pm	CH	00213	Myers,L

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1180 <b>Art Appreciation</b>	3.0- 3.0	75836	LEC	1A	MWF	11:00 - 11:50 am	CASTL	00138	Arthur,S
			<b>MOTR ARTS 100: Art Appreciation</b>						
	3.0- 3.0	75701	LEC	1C	TTh	09:30 - 10:45 am	CH	00213	Arthur,S
			<b>MOTR ARTS 100: Art Appreciation</b>						
	3.0- 3.0	75837	LEC	1E	TTh	03:30 - 04:45 pm	CASTL	00138	Arthur,S
			<b>MOTR ARTS 100: Art Appreciation</b>						
1185 <b>Study Of Film</b>	3.0- 3.0		LEC	1A	T	09:30 - 10:45 am	CASTL	00138	Tohline,A
	3.0- 3.0		LEC	1B	T	11:00 - 12:15 pm	CASTL	00138	Tohline,A
	3.0- 3.0	74591	LAB	3A	T	07:00 - 10:00 pm	CASTL	LEACH	Tohline,A
	3.0- 3.0	74593	LAB	3B	T	07:00 - 10:00 pm	CASTL	LEACH	Tohline,A
3001 <b>Special Topics</b> Prerequisites: Art 1185.	3.0- 3.0	78012	LEC	1A	TTh	03:30 - 04:45 pm	H-SS	00203	Tohline,A
			Great Directors						
3100 <b>Advanced Art Studio</b> Prerequisites: Art 1120, Art 1140, or Art 1164.	3.0- 3.0		LEC	1A	T	12:30 - 01:45 pm	CH	00213	Myers,L
	3.0- 3.0	77638	LAB	3A	Th	12:30 - 01:45 pm	CH	00213	Myers,L
3221 <b>Fundamentals in Photography</b> Prerequisite: Art 1180 or Art 1185 (required for Art minor credit) or Sp&M S 1185 or Sp&M S 2181 (required for Speech minor credit). (Co-listed with Sp&M S 3221)	3.0- 3.0	76023	LEC	1A	W	06:30 - 09:15 pm	CSF	00114	Rupert,B
	3.0- 3.0	76632	LEC	1B	Th	06:30 - 09:15 pm	CSF	00114	Rupert,B
	3.0- 3.0	77713	LEC	1C	T	04:30 - 07:30 pm	CSF	00114	Phelan,R
3260 <b>Exploring Digital Art</b>	3.0- 3.0		LEC	1A	W	04:00 - 05:15 pm	CS	00206	Myers,L
	3.0- 3.0	77052	LAB	3A	W	05:15 - 06:30 pm	CS	00206	Myers,L
3276 <b>Thematics Studies in Film and Philosophy</b> Prerequisites: Art 1185 or one philosophy course, or junior standing. (Co-listed with Philos 3276)	3.0- 3.0	78018	LEC	1A	M	06:00 - 08:30 pm	H-SS	00104	Dittmer,J
3500 <b>Innovation Through Design Thinking</b>	3.0- 3.0	78298	LAB	3A	M	04:00 - 06:30 pm	H-SS	00203	Myers,L

## Arts, Languages & Philosophy

1001 <b>Special Topics</b>	5.0- 5.0	78213	LEC	1A	ARR	ARR	ARR		Ivliyeva,I
			Chinese 1						
			<b>UM Shared Course-Secondary</b>						
2001 <b>Special Topics</b> Consent of instructor.	0.0- 6.0	78306	LEC	1A	ARR	ARR	ARR		Merfeld-Langston,A
			The Global Village						
4397 <b>Multidisciplinary Studies Capstone</b> Prerequisite: Senior status.	3.0- 3.0	77167	LEC	1A	ARR	ARR	ARR		Haynes,W

## Biological Sciences

1113 <b>General Biology</b> Prerequisite: Entrance requirements.	3.0- 3.0	74617	LEC	1A	MWF	09:00 - 09:50 am	BERTELS	00112B	
			<b>MOTR BIOL 100: Essentials in Biology</b>						
			<b>MOTR BIOL 100L: Essentials in Biology with Lab</b>						
			LEC	1A	MWF	09:00 - 09:50 am	BERTELS	00112A	
			<b>MOTR BIOL 100: Essentials in Biology</b>						
			<b>MOTR BIOL 100L: Essentials in Biology with Lab</b>						
1163 <b>Biotechnology in Film</b>	3.0- 3.0	78021	LEC	1A	W	06:00 - 08:30 pm	SHNK	000G3	Hou,C
1201 <b>Biological Sciences Freshman Seminar</b> Prerequisite: Biological Sciences majors only.	1.0- 1.0	77547	RSD	2B	T	10:00 - 10:50 am	BCH	00120	Mormile,M
			<b>Bio Sci Majors Only</b>						
1219 <b>General Biology Lab</b>	2.0- 2.0		LEC	1B	W	02:00 - 02:50 pm	SHNK	00111	Smentkowski,S
			<b>MOTR BIOL 100L: Essentials in Biology with Lab</b>						
			<b>MOTR BIOL 150L: Biology with Lab</b>						
	2.0- 2.0		LEC	1C	T	06:00 - 06:50 pm	SHNK	00111	Smentkowski,S
			<b>MOTR BIOL 100L: Essentials in Biology with Lab</b>						
			<b>MOTR BIOL 150L: Biology with Lab</b>						
	2.0- 2.0	74621	LAB	3B	W	03:00 - 04:50 pm	SHNK	00111	Smentkowski,S
			<b>MOTR BIOL 100L: Essentials in Biology with Lab</b>						
			<b>MOTR BIOL 150L: Biology with Lab</b>						
	2.0- 2.0	76340	LAB	3C	T	07:00 - 08:50 pm	SHNK	00111	Smentkowski,S
			<b>MOTR BIOL 100L: Essentials in Biology with Lab</b>						
			<b>MOTR BIOL 150L: Biology with Lab</b>						
1223 <b>Biodiversity</b>	3.0- 3.0	76932	LEC	1A	TTh	11:00 - 12:15 pm	BCH	00315	Niyogi,D
1229 <b>Biodiversity Lab</b> Prerequisite: Preceded or accompanied by Biodiversity (Bio Sci 1223)	1.0- 1.0	76933	LAB	3A	M	02:00 - 05:00 pm	SHNK	00111	Wilson,T
	1.0- 1.0	76934	LAB	3B	M	06:00 - 09:00 pm	SHNK	00111	Wilson,T



CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
4323 <b>Molecular Genetics</b> Prerequisites: Bio Sci 2223 and Bio Sci 2213.	3.0- 3.0	74634	LEC	1A	MWF	11:00 - 11:50 am	CS	00207	Frank,R
4353 <b>Cancer Cell Biology</b> Prerequisite: Bio Sci 2213.	3.0- 3.0	76382	LEC	1A	TTh	12:30 - 01:45 pm	BCH	00317	Shannon,K
4363 <b>Freshwater Ecology</b> Prerequisite: Bio Sci 2263.	3.0- 3.0	76180	LEC	1A	TTh	02:00 - 03:15 pm	ROLLA	000G4	Niyogi,D
4493 <b>General Virology</b> Prerequisites: Bio Sci 1113 or 1213; Bio Sci 2213, 3313, Chem 1310, 1320, 2210.	3.0- 3.0	78027	LEC	1A	MWF	02:00 - 02:50 pm	CH	00103	Westenberg,D
5000 <b>Special Problems</b> Prerequisite: Consent of the instructor.	0.0- 6.0	75796	IND	6A	ARR	ARR	ARR		Duvernell,D
	0.0- 6.0	75797	IND	6B	ARR	ARR	ARR		Frank,R
	0.0- 6.0	75798	IND	6C	ARR	ARR	ARR		Huang,Y
	0.0- 6.0	75799	IND	6D	ARR	ARR	ARR		Hou,C
	0.0- 6.0	75800	IND	6E	ARR	ARR	ARR		Mormile,M
	0.0- 6.0	75783	IND	6F	ARR	ARR	ARR		Niyogi,D
	0.0- 6.0	75801	IND	6G	ARR	ARR	ARR		Semon,J
	0.0- 6.0	75802	IND	6H	ARR	ARR	ARR		Shannon,K
	0.0- 6.0	77735	IND	6J	ARR	ARR	ARR		Thimgan,M
	0.0- 6.0	77739	IND	6K	ARR	ARR	ARR		Westenberg,D
5001 <b>Special Topics</b> Prerequisites: Bio Sci 2213.	3.0- 3.0	78026	LEC	1A	TTh	09:30 - 10:45 am	IDE	000G4A	Semon,J
									Stem Cell Biology
	3.0- 3.0	78088	LEC	1B	MWF	10:00 - 10:50 am	IDE	000G4A	Duvernell,D
									Population & Conservat Genetic
5010 <b>Graduate Seminar</b>	0.0- 6.0	75887	RSD	2A	ARR	ARR	ARR		Frank,R
5040 <b>Oral Examination</b>	0.0- 0.0	75972	IND	6A	ARR	ARR	ARR		
5099 <b>Graduate Research</b>	0.0-15.0	75732	IND	6A	ARR	ARR	ARR		Duvernell,D
	0.0-15.0	74635	IND	6B	ARR	ARR	ARR		Frank,R
	0.0-15.0	76256	IND	6C	ARR	ARR	ARR		Huang,Y
	0.0-15.0	74636	IND	6D	ARR	ARR	ARR		Hou,C
	0.0-15.0	74637	IND	6E	ARR	ARR	ARR		Mormile,M
	0.0-15.0	74638	IND	6F	ARR	ARR	ARR		Niyogi,D
	0.0-15.0	74639	IND	6G	ARR	ARR	ARR		Semon,J
	0.0-15.0	74640	IND	6H	ARR	ARR	ARR		Shannon,K
	0.0-15.0	74641	IND	6J	ARR	ARR	ARR		Thimgan,M
	0.0-15.0	77737	IND	6K	ARR	ARR	ARR		Westenberg,D
5210 <b>Biomaterials I</b> Prerequisite: Senior undergraduate standing. (Co-listed with Chem Eng 5200, MS&E 5310)	3.0- 3.0	76594	LEC	1A	TTh	12:30 - 01:45 pm	TMH	00256	Jung,S
6210 <b>Biomaterials II</b> Prerequisite: Graduate Standing. (Co-listed with CHEM ENG 6300, MS&E 6310)	3.0- 3.0	76595	LEC	1A	TTh	12:30 - 01:45 pm	TMH	00256	Jung,S
6273 <b>Techniques In Applied And Environmental Biology</b> Prerequisite: Graduate standing.	3.0- 3.0	75886	LEC	1A	ARR	ARR	ARR		Huang,Y
6313 <b>Environmental Microbiology</b> Prerequisite: Must be a graduate student.	3.0- 3.0	78025	LEC	1A	<b>CANCELLED</b>				
6353 <b>Advanced Cancer Cell Biology</b> Prerequisite: Bio Sci 2213.	3.0- 3.0	76383	LEC	1A	TTh	12:30 - 01:45 pm	BCH	00317	Shannon,K
6363 <b>Advanced Freshwater Ecology</b> Prerequisite: Graduate student standing.	3.0- 3.0	76181	LEC	1A	TTh	02:00 - 03:15 pm	ROLLA	000G4	Niyogi,D

## Business

1000 <b>Special Problems</b>	0.0- 6.0	76534	IND	6A	ARR	ARR	ARR		Siau,K
1110 <b>Introduction to Management and Entrepreneurship</b>	3.0- 3.0	74642	LEC	1A	TTh	03:30 - 04:45 pm	MCNT	00212	Harvey,E
	3.0- 3.0	78338	LEC	1B	TTh	09:30 - 10:45 am	FUL	00227	Elrod,C
1210 <b>Financial Accounting</b>	3.0- 3.0	76454	LEC	1A	TTh	02:00 - 03:15 pm	BCH	00317	Eng,L
	3.0- 3.0	76224	LEC	1B	TTh	11:00 - 12:15 pm	BCH	00316	Eng,L
1810 <b>Introduction to College Success</b>	1.0- 1.0	76533	LEC	1A	M	12:00 - 12:50 pm	MCNT	00204	Siau,K
2910 <b>Business Law</b>	3.0- 3.0	74643	LEC	1A	TTh	03:30 - 04:45 pm	CS	00203	Anderson,E
4099 <b>Undergraduate Research</b>	0.0- 6.0	75858	IND	6A	ARR	ARR	ARR		Elrod,C
	0.0- 6.0	76214	IND	6B	ARR	ARR	ARR		Lea,B

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
4111 <b>Business Negotiations</b> Prerequisites: At least Junior status.	3.0- 3.0	76925	LEC	1A	MWF	11:00 - 11:50 am	BCH	00213	Bates,C
5080 <b>Practicum</b> Prerequisite: Business Core.	0.0- 6.0	76263	IND	6A	ARR	ARR	ARR		
5085 <b>Internship</b> Prerequisite: Graduate standing.	0.0- 6.0	76142	IND	6A	ARR	ARR	ARR		
5099 <b>Research</b> Prerequisite: Permission of the instructor.	0.0- 9.0 0.0- 9.0	75948 76213	IND IND	6A 6B	ARR ARR	ARR ARR	ARR ARR		Elrod,C Lea,B
5230 <b>Financial Statement Analysis</b> Prerequisite: FINANCE 2150 or Graduate Standing.	3.0- 3.0	77622	LEC	1A	MWF	01:00 - 01:50 pm	LIB	000G14	Chiu,Y
5360 <b>Business Operations</b> Prerequisites: BUS 1210 or ENG MGT 2211; at least Junior standing; and one of the following: STAT 1111, STAT 1115, STAT 1116, STAT 3111, STAT 3113, STAT 3115, or STAT 3117.	3.0- 3.0	76000	LEC	1A	MWF	02:00 - 02:50 pm	BCH	00216	Chen,L
5910 <b>Privacy and Information Security Law</b>	3.0- 3.0	77898	LEC	1A	M	04:00 - 06:30 pm	BERTELS	00B12A	Canis,R
5980 <b>Business Models for Entrepreneurship and Innovation</b> Prerequisite: Senior or graduate standing.	3.0- 3.0	76489	LEC	1A	MWF	03:00 - 03:50 pm	BCH	00213	Fang,H
6111 <b>Advanced Business Negotiations</b> Prerequisite: Graduate status.	3.0- 3.0	76919	LEC	1A	MWF	11:00 - 11:50 am	BCH	00213	Bates,C
6121 <b>Teambuilding and Leadership</b> Prerequisite: Graduate standing.	3.0- 3.0	76935	LEC	1A	TTh	11:00 - 12:15 pm	BCH	00121	Elrod,C
6426 <b>Integration of Business Areas</b> Prerequisite: Graduate standing.	3.0- 3.0	76273	LEC	1A	M	04:00 - 06:30 pm	EECH	00239	Fang,H
6622 <b>International Marketing</b> Prerequisite: Graduate standing.	3.0- 3.0	76096	LEC	1A	Th	04:00 - 06:30 pm	FUL	00107A	Stanley,S
6827 <b>Managerial Finance</b> Prerequisite: Graduate standing.	3.0- 3.0	76122	LEC	1A	W	04:00 - 06:30 pm	FUL	00107A	Zhang,H
6887 <b>Research Methods in Business and IS&amp;T</b> (Co-listed with IS&T 6887)	3.0- 3.0	77043	LEC	1A	Th	07:00 - 09:30 pm	FUL	00107A	Nah,F

## Ceramic Engineering

2002 <b>Cooperative Training</b>	1.0- 3.0	74647	IND	6A	ARR	ARR	ARR		Schwartz,R
2110 <b>Atomic Structure Of Crystalline Ceramics</b>	3.0- 3.0	74644	LEC	1A	MWF	09:00 - 09:50 am	MCNT	00212	Huebner,W
2210 <b>Ceramics In The Modern World</b>	2.0- 2.0	74645	LEC	1A	F	01:00 - 02:40 pm	MCNT	00212	Hilmas,G
2240 <b>Applied Glass Forming</b> Prerequisites: A grade of "C" or better in either Cer Eng 2210 or Met Eng 1210. Freshman standing or sophomore standing only.	2.0- 2.0 2.0- 2.0 2.0- 2.0 2.0- 2.0 2.0- 2.0 2.0- 2.0 2.0- 2.0	77579 77580 77581 77582 77583 77584	LEC LAB LAB LAB LAB LAB LAB	1A 3A 3B 3C 3D 3E 3F	T M M T W W	12:00 - 12:50 pm 02:00 - 04:00 pm 04:00 - 06:00 pm 02:00 - 04:00 pm 04:00 - 06:00 pm 02:00 - 04:00 pm 04:00 - 06:00 pm	MCNT Glass Shop Glass Shop Glass Shop Glass Shop Glass Shop Glass Shop	00245 000G3 000G3 000G3 000G3 000G3 000G3	Reidmeyer,M Reidmeyer,M Reidmeyer,M Reidmeyer,M Reidmeyer,M Reidmeyer,M Reidmeyer,M
2315 <b>Ceramic Materials Laboratory I-Characterization Of Materials</b> Prerequisite: Sophomore standing.	2.0- 2.0 2.0- 2.0 2.0- 2.0	74646 76159 77064	LAB LAB LAB	3A 3A 3B 3B 3C 3C	M ARR M ARR M ARR	01:00 - 04:50 pm ARR 01:00 - 04:50 pm ARR 01:00 - 04:50 pm ARR	MCNT ARR MCNT ARR MCNT ARR	00212 00212 00212	Huebner,W Smith,J Ohara,K
3210 <b>Thermal Processes In Ceramics</b>	3.0- 3.0	74648	LEC	1A	TTh	11:00 - 12:15 pm	MCNT	00210	Dogan,F
3220 <b>Phase Equilibria</b> Prerequisite: A grade of "C" or better in Cer Eng 3230.	3.0- 3.0	76320	LEC	1A	MWF	10:00 - 10:50 am	MCNT	00212	Smith,J
3230 <b>Thermodynamics of Materials</b> Prerequisite: "C" or better grade in either Met Eng 1210 or Chem 1320.	3.0- 3.0	77554	LEC	1A	MWF	09:00 - 09:50 am	MCNT	00210	Moats,M
3315 <b>Ceramic Processing Lab I</b> Prerequisite: "C" or better grade in Cer Eng 2325.	2.0- 2.0 2.0- 2.0 2.0- 2.0	74649 74650 77624	LAB LAB LAB LAB	3A 3A 3B 3B 3C 3C	T ARR T ARR T ARR	01:00 - 04:50 pm ARR 01:00 - 04:50 pm ARR 01:00 - 04:50 pm ARR	MCNT ARR MCNT ARR MCNT ARR	00206 00206 00206	Dogan,F Schwartz,R Ohara,K



CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
4000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	74651	IND	6A	ARR	ARR	ARR		Brow,R
	0.0- 6.0	74652	IND	6B	ARR	ARR	ARR		Dogan,F
	0.0- 6.0	74653	IND	6C	ARR	ARR	ARR		Fahrenheitz,W
	0.0- 6.0	74654	IND	6D	ARR	ARR	ARR		Hilmas,G
	0.0- 6.0	74655	IND	6E	ARR	ARR	ARR		Huebner,W
	0.0- 6.0	74656	IND	6F	ARR	ARR	ARR		Reidmeyer,M
	0.0- 6.0	74657	IND	6G	ARR	ARR	ARR		Smith,J
4096 <b>Materials Senior Design I</b> Prerequisites: Met Eng 3125 and Met Eng 2125, or Cer Eng 3315 with a "C" or better. (Co-listed with Met Eng 4096)	3.0- 3.0	76590	LEC	1A	MWF	09:00 - 09:50 am	MCNT	00216	Schlesinger,M
									<b>Communication Emphasized</b>
4099 <b>Undergraduate Research</b>	0.0- 6.0	74660	IND	6A	ARR	ARR	ARR		Brow,R
	0.0- 6.0	74661	IND	6B	ARR	ARR	ARR		Day,D
	0.0- 6.0	74662	IND	6C	ARR	ARR	ARR		Dogan,F
	0.0- 6.0	74663	IND	6D	ARR	ARR	ARR		Fahrenheitz,W
	0.0- 6.0	74664	IND	6E	ARR	ARR	ARR		Hilmas,G
	0.0- 6.0	74665	IND	6F	ARR	ARR	ARR		Huebner,W
	0.0- 6.0	74666	IND	6G	ARR	ARR	ARR		Kumar,A
	0.0- 6.0	74667	IND	6H	ARR	ARR	ARR		Lipke,D
	0.0- 6.0	77346	IND	6J	ARR	ARR	ARR		Rahaman,M
	0.0- 6.0	77768	IND	6K	ARR	ARR	ARR		Schwartz,R
	0.0- 6.0	78055	IND	6L	ARR	ARR	ARR		Smith,J
4250 <b>Thermal Properties Of Ceramics</b> Prerequisite: Senior standing.	3.0- 3.0	74658	LEC	1A	TTh	09:30 - 10:45 am	MCNT	00212	Hilmas,G
4310 <b>Ceramic Processing</b> Prerequisite: Senior standing.	3.0- 3.0	75813	LEC	1A	TTh	11:00 - 12:15 pm	EMGT	00102	Lipke,D
4410 <b>Introduction to Integrated Computational Materials Engineering</b>	3.0- 3.0		LEC	1A					<b>CANCELLED</b>
	3.0- 3.0	77690	LAB	3A					<b>CANCELLED</b>
5000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	74668	IND	6A	ARR	ARR	ARR		Brow,R
	0.0- 6.0	74669	IND	6B	ARR	ARR	ARR		Fahrenheitz,W
	0.0- 6.0	75991	IND	6C	ARR	ARR	ARR		Reidmeyer,M
	0.0- 6.0	76348	IND	6D	ARR	ARR	ARR		Smith,J
5040 <b>Oral Examination</b> Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate office permission required.	0.0- 0.0	74680	IND	6A	ARR	ARR	ARR		
5099 <b>Research</b> Prerequisite: Consent of instructor required.	0.0-15.0	74670	IND	6A	ARR	ARR	ARR		Brow,R
	0.0-15.0	74671	IND	6B	ARR	ARR	ARR		Day,D
	0.0-15.0	74672	IND	6C	ARR	ARR	ARR		Dogan,F
	0.0-15.0	74673	IND	6D	ARR	ARR	ARR		Fahrenheitz,W
	0.0-15.0	74674	IND	6E	ARR	ARR	ARR		Hilmas,G
	0.0-15.0	74675	IND	6F	ARR	ARR	ARR		Huebner,W
	0.0-15.0	74676	IND	6G	ARR	ARR	ARR		Schwartz,R
	0.0-15.0	74677	IND	6H	ARR	ARR	ARR		Smith,J
	0.0-15.0	74678	IND	6J	ARR	ARR	ARR		Switzer,J
	0.0-15.0	78056	IND	6K	ARR	ARR	ARR		
5115 <b>X-Ray Diffraction Analysis</b>	3.0- 3.0		LEC	1A	MW	10:00 - 10:50 am	MCNT	00210	Fahrenheitz,W
	3.0- 3.0	78040	LAB	3A	F	10:00 - 10:50 am	MCNT	00210	Fahrenheitz,W
5230 <b>Glass Science And Engineering</b> Prerequisite: "C" or better grade in Cer Eng 2120.	3.0- 3.0	76521	LEC	1A	TTh	08:00 - 09:15 am	MCNT	00210	Brow,R
5810 <b>Principles Of Engineering Materials</b> (Co-listed with Aero Eng 3877, Chem Eng 5300, Physics 4523, Met Eng 5810)	3.0- 3.0	74659	LEC	1A	MWF	08:00 - 08:50 am	MCNT	00216	Newkirk,J
6050 <b>Continuous Registration</b> Doctoral students only. Graduate office permission required.	1.0- 1.0	74681	IND	6A	ARR	ARR	ARR		Moats,M
6085 <b>Internship</b> DE students only.	0.0-15.0	74679	IND	6A	ARR	ARR	ARR		Huebner,W
6099 <b>Research</b>	0.0-15.0	77000	IND	6A	ARR	ARR	ARR		Brow,R
	0.0-15.0	77001	IND	6B	ARR	ARR	ARR		Day,D
	0.0-15.0	77002	IND	6C	ARR	ARR	ARR		Dogan,F
	0.0-15.0	77003	IND	6D	ARR	ARR	ARR		Fahrenheitz,W
	0.0-15.0	77004	IND	6E	ARR	ARR	ARR		Hilmas,G
	0.0-15.0	77005	IND	6F	ARR	ARR	ARR		Huebner,W

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR	
	0.0-15.0	77006	IND	6G	ARR	ARR	ARR		Kumar,A	
	0.0-15.0	77007	IND	6H	ARR	ARR	ARR		Lipke,D	
	0.0-15.0	77008	IND	6J	ARR	ARR	ARR		Schwartz,R	
	0.0-15.0	77009	IND	6K	ARR	ARR	ARR		Smith,J	
	0.0-15.0	77342	IND	6L	ARR	ARR	ARR		Switzer,J	
	0.0-15.0	78057	IND	6M	ARR	ARR	ARR		Watts,J	
6410 <b>Advanced Integrated Computational Materials Engineering</b>	3.0- 3.0		LEC	1A	<b>CANCELLED</b>					
	3.0- 3.0	77692	LAB	3A	<b>CANCELLED</b>					

## Chemical Engineering

2100 <b>Chemical Engineering Material &amp; Energy Balances</b>	3.0- 3.0		LEC	1A	MW	12:00 - 12:50 pm	BERTELS	00112B	
			LEC	1A	MW	12:00 - 12:50 pm	BERTELS	00112A	Park,J
Prerequisites: Chem 1320 or Geology 3410; Math 1215 or Math 1221; preceded or accompanied by Physics 1135.	3.0- 3.0	74683	LAB	3A	F	12:00 - 12:50 pm	BERTELS	00112A	Park,J
			LAB	3A	F	12:00 - 12:50 pm	BERTELS	00112B	
2110 <b>Chemical Engineering Thermodynamics I</b>	3.0- 3.0	77137	LEC	1A	MWF	09:00 - 09:50 am	BERTELS	00B10	Wang,J
2300 <b>Chemical Process Materials</b>	3.0- 3.0	77392	LEC	1A	MWF	10:00 - 10:50 am	MCNT	00204	Liang,X
Prerequisites: Physics 1135.									
3002 <b>Cooperative Engineering Training</b>	0.0- 6.0	74685	IND	6A	ARR	ARR	ARR		Ludlow,D
3100 <b>Chemical Engineering Fluid Flow</b>	3.0- 3.0	74686	LEC	1A	MWF	02:00 - 02:50 pm	BERTELS	00112A	Neogi,P
Prerequisites: Chem Eng 2100 and Math 3304; Chem Eng majors only.			LEC	1A	MWF	02:00 - 02:50 pm	BERTELS	00112B	
3101 <b>Fundamentals of Transport in Chemical and Biochemical Engineering</b>	4.0- 4.0	78194	LEC	1A	TTh	11:00 - 12:15 pm	PHYS	00104	Rezaei,F
Prerequisites: Math 3304 and Chem Eng 2110. Admitted to the Chemical Engineering Program.			LEC	1A	W	11:00 - 11:50 am	PHYS	00104	
3110 <b>Chemical Engineering Heat Transfer</b>	2.0- 2.0	76118	LEC	1A	MW	03:00 - 03:50 pm	BERTELS	00B12B	Al Dahhan,M
Prerequisites: Math 2222 and preceded or accompanied by Chem Eng 3100. Chem Eng majors only.									
3111 <b>Numerical Computing in Chemical and Biochemical Engineering</b>	3.0- 3.0		LEC	1A	TTh	08:00 - 09:15 am	BERTELS	00B12B	Luks,C
	3.0- 3.0		LEC	1B	TTh	08:00 - 09:15 am	Lab	00124	Luks,C
Prerequisites: Math 3304 and either both Comp Sci 1971 and Comp Sci 1981 or both Comp Sci 1972 and Comp Sci 1982. Admitted to the Chemical Engineering Program.	3.0- 3.0	78196	LAB	3A	ARR	ARR	ARR		Luks,C
	3.0- 3.0	78285	LAB	3B	ARR	ARR	ARR		Luks,C
3120 <b>Chemical Engineering Thermodynamics II</b>	3.0- 3.0	74684	LEC	1A	MWF	04:00 - 04:50 pm	BERTELS	00B10	Park,J
Prerequisites: Grade of "C" or better in Chem Eng 2100 and Chem Eng 2110; Chem Eng majors only.									
3130 <b>Staged Mass Transfer</b>	3.0- 3.0	76002	LEC	1A	MWF	08:00 - 08:50 am	BERTELS	00112B	
Prerequisites: Chem Eng 3120, admitted to Chem Eng program.			LEC	1A	MWF	08:00 - 08:50 am	BERTELS	00112A	Smith,J
3140 <b>Continuous Mass Transfer</b>	3.0- 3.0	76003	LEC	1A	MWF	11:00 - 11:50 am	BERTELS	00112B	
Prerequisites: Preceded or accompanied by Chem Eng 3130. Chem Eng majors only.			LEC	1A	MWF	11:00 - 11:50 am	BERTELS	00112A	Luks,C
3150 <b>Chemical Engineering Reactor Design</b>	3.0- 3.0	76401	LEC	1A	MWF	10:00 - 10:50 am	BERTELS	00112A	Barua,S
Prerequisites: Preceded or accompanied by either Chem Eng 3140 or Chem Eng 3200 or preceded by both Chem Eng 3111 and Chem Eng 3101. Admitted to Chem Eng program.			LEC	1A	MWF	10:00 - 10:50 am	BERTELS	00112B	
4000 <b>Special Problems</b>	0.0- 6.0	74691	IND	6A	ARR	ARR	ARR		Al Dahhan,M
Prerequisite: Preceded or accompanied by Chem 4 or an equivalent training program approved by S&T. Consent of instructor required.	0.0- 6.0	74692	IND	6B	ARR	ARR	ARR		Barua,D
	0.0- 6.0	75721	IND	6C	ARR	ARR	ARR		Barua,S
	0.0- 6.0	76451	IND	6D	ARR	ARR	ARR		Forciniti,D
	0.0- 6.0	74693	IND	6E	ARR	ARR	ARR		Liang,X
	0.0- 6.0	74694	IND	6G	ARR	ARR	ARR		Ludlow,D
	0.0- 6.0	74695	IND	6H	ARR	ARR	ARR		Luks,C
	0.0- 6.0	74696	IND	6J	ARR	ARR	ARR		Neogi,P
	0.0- 6.0	76075	IND	6K	ARR	ARR	ARR		Park,J
	0.0- 6.0	76188	IND	6L	ARR	ARR	ARR		Rezaei,F
	0.0- 6.0	76363	IND	6M	ARR	ARR	ARR		Rownaghi,A
	0.0- 6.0	76829	IND	6P	ARR	ARR	ARR		Smith,J

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
4001 <b>Special Topics</b> Prerequisites: Senior standing and a minimum of two semesters of Spanish.	0.0- 6.0	76985	IND	6Q	ARR	ARR	ARR		Wang,J
	0.0- 6.0	76986	IND	6R	ARR	ARR	ARR		Westenberg,D
	3.0- 3.0	78275	LEC	1A	MWF	02:00 - 02:50 pm	BCH	00215	Forciniti,D
4096 <b>Chemical Engineering Economics</b> Prerequisite: Preceded or accompanied by Chem Eng 3130.	2.0- 2.0	76291	LEC	1A	TTh	12:00 - 12:50 pm	BERTELS	00112B	
			LEC	1A	TTh	12:00 - 12:50 pm	BERTELS	00112A	Ryan,P
4097 <b>Chemical Process Design II</b> Prerequisites: Chem Eng 3130 and Chem Eng 3150; preceded or accompanied by either Chem Eng 4091 or both Chem Eng 4110 and Chem Eng 4096.	3.0- 3.0		LEC	1A	F	03:00 - 03:50 pm	BERTELS	00112B	
			LEC	1A	F	03:00 - 03:50 pm	BERTELS	00112A	Ryan,P
	3.0- 3.0	76559	LAB	3A	MW	03:00 - 05:50 pm	BERTELS	00112B	
4099 <b>Undergraduate Research</b>	0.0- 6.0	74698	IND	6A	ARR	ARR	ARR		Al Dahhan,M
	0.0- 6.0	75722	IND	6B	ARR	ARR	ARR		Barua,D
	0.0- 6.0	75723	IND	6C	ARR	ARR	ARR		Barua,S
	0.0- 6.0	75695	IND	6D	ARR	ARR	ARR		Forciniti,D
	0.0- 6.0	74699	IND	6E	ARR	ARR	ARR		Liang,X
	0.0- 6.0	75862	IND	6G	ARR	ARR	ARR		Ludlow,D
	0.0- 6.0	75863	IND	6H	ARR	ARR	ARR		Luks,C
	0.0- 6.0	75870	IND	6J	ARR	ARR	ARR		Neogi,P
	0.0- 6.0	76076	IND	6K	ARR	ARR	ARR		Park,J
	0.0- 6.0	76364	IND	6L	ARR	ARR	ARR		Rezaei,F
	0.0- 6.0	76482	IND	6M	ARR	ARR	ARR		Rownaghi,A
	0.0- 6.0	76830	IND	6P	ARR	ARR	ARR		Smith,J
	0.0- 6.0	76987	IND	6Q	ARR	ARR	ARR		Wang,J
	0.0- 6.0	76988	IND	6R	ARR	ARR	ARR		Westenberg,D
4100 <b>Chemical Engineering Laboratory I</b> Prerequisites: Chem Eng 3100 and Chem Eng 3110.	2.0- 2.0		LEC	1A	T	08:00 - 08:50 am	TMH	00251	Rownaghi,A
						Available lab blocks are 9:00-11:50am and 2:00-4:50pm each Tuesday and Thursday. Students will use one lab block each week but are advised to keep all block times open. See 'Notes' for Class Schedule			
	2.0- 2.0	76290	LAB	3A	T	09:00 - 11:50 am	Ctl Lab	124	Rownaghi,A
4110 <b>Chemical Engineering Process Dynamics And Control</b> Prerequisites: Preceded or accompanied by any one of Chem Eng 4100 or Chem Eng 4130 or Chem Eng 4200; or preceded by Chem Eng 3150, Chem Eng 3131 and Chem Eng 3141; or preceded by Chem Eng 3150 and preceded or accompanied by Chem Eng 5250.	2.0- 2.0	77283	LAB	3B	T	02:00 - 04:50 pm	Ctl Lab	124	Rownaghi,A
	2.0- 2.0	77284	LAB	3C	Th	09:00 - 11:50 am	Ctl Lab	124	Rownaghi,A
	2.0- 2.0	77285	LAB	3D	Th	02:00 - 04:50 pm	Ctl Lab	124	Rownaghi,A
	3.0- 3.0	74690	LEC	1A	MWF	09:00 - 09:50 am	EMGT	00103	Barua,D
	1.0- 1.0	77101	LAB	3B	T	09:00 - 11:50 am	Lab	00124	Ryan,P
4120 <b>Process Dynamics And Control Laboratory</b>	1.0- 1.0	77102	LAB	3C	T	02:00 - 04:50 pm	Lab	00124	Ryan,P
	1.0- 1.0	77103	LAB	3D	Th	09:00 - 11:50 am	Lab	00124	Ryan,P
	1.0- 1.0	77104	LAB	3E	Th	02:00 - 04:50 pm	Lab	00124	Ryan,P
	3.0- 3.0		LEC	1A	Th	08:00 - 08:50 am	CH	00105	Rownaghi,A
4130 <b>Chemical Engineering Laboratory II</b> Prerequisites: Chem Eng 3130 and Chem Eng 3140; or Chem Eng 3141 and Chem Eng 3131 and preceded or accompanied by Chem Eng 3150.	3.0- 3.0	74688	LAB	3A	TTh	09:00 - 11:50 am	Lab	00124	Rownaghi,A
						Available lab blocks are 9:00-11:50am and 2:00-4:50pm each Tuesday and Thursday. Students will use two lab blocks each week but are advised to keep all block times open. See 'Notes' for Class Schedule Communication Emphasized			
	3.0- 3.0	77556	LAB	3B	TTh	02:00 - 04:50 pm	Lab	00124	Rownaghi,A

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
4140 <b>Chemical Process Safety</b> Prerequisite: Preceded or accompanied by Chem Eng 3150.	3.0- 3.0	77138	LEC	1A	MWF	08:00 - 08:50 am	EMGT	00103	Ludlow,D
4150 <b>Chemical Process Flowsheeting</b> Prerequisite: Math 3304 or graduate standing.	3.0- 3.0 3.0- 3.0	76481	LEC LAB	1A 3A	<b>CANCELLED</b> <b>CANCELLED</b>				
4200 <b>Biochemical Separations Laboratory</b> Prerequisite: Chem Eng 3200.	2.0- 2.0	74689	LAB	3A	Th	09:00 - 11:50 am	Lab	00116	Forciniti,D
5000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0	74700 74701 76077 76450 76189 76190 76191 76192 76193 76194 76365 76831 76989 76990	IND IND IND IND IND IND IND IND IND IND IND IND IND IND IND IND	6A 6B 6C 6D 6E 6G 6H 6J 6K 6L 6M 6P 6Q 6R	ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR	ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR	ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR	ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR	Al Dahhan,M Barua,D Barua,S Forciniti,D Liang,X Ludlow,D Luks,C Neogi,P Park,J Rezaei,F Rownaghi,A Smith,J Wang,J Westenberg,D
5001 <b>Special Topics</b> Prerequisites: Chem 1320; Math 1215 or Math 1221; preceded or accompanied by Physics 1135.	3.0- 3.0	78197	LEC	1A	MWF	04:00 - 04:50 pm	EMGT	00106	Barua,S
5040 <b>Oral Examination</b> Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate office permission required.	0.0- 0.0	74708	IND	6A	ARR	ARR	ARR		Al Dahhan,M
5100 <b>Intermediate Transport Phenomena</b> Prerequisite: Chem Eng 3140 or Chem Eng 3200 or graduate standing.	3.0- 3.0	74697	LEC	1A	MWF	10:00 - 10:50 am	BERTELS	00B12A	Neogi,P
5140 <b>Intermediate Chemical Process Safety</b> Prerequisite: Graduate Standing.	3.0- 3.0	77656	LEC	1A	MWF	08:00 - 08:50 am	EMGT	00103	Ludlow,D
5150 <b>Intermediate Chemical Process Flowsheeting</b>	3.0- 3.0 3.0- 3.0	77131	LEC LAB	1A 3A	<b>CANCELLED</b> <b>CANCELLED</b>				
5200 <b>Biomaterials I</b> Prerequisite: Senior undergraduate standing. (Co-listed with Bio Sci 5210, MS&E 5310)	3.0- 3.0	76596	LEC	1A	TTh	12:30 - 01:45 pm	TMH	00256	Jung,S
6001 <b>Special Topics</b> Prerequisites: Graduate Standing.	3.0- 3.0	78198	LEC	1A	MWF	04:00 - 04:50 pm	EMGT	00106	Barua,S
6015 <b>Lecture Series</b> Prerequisites: Graduate standing.	1.0- 1.0	77282	LEC	1A	M	03:00 - 03:50 pm	BERTELS	00B10	Neogi,P
6050 <b>Continuous Registration</b>	1.0- 1.0	74709	IND	6B	ARR	ARR	ARR		Al Dahhan,M
6085 <b>Internship</b>	0.0-15.0	74707	IND	6A	ARR	ARR	ARR		Al Dahhan,M
6099 <b>Research</b>	0.0-15.0 0.0-15.0	74703 75714 75713 76449 74704 74705 74706 75864 75865 75866 76078 76832 76991 76992 74702	IND IND	6A 6B 6C 6D 6E 6G 6H 6J 6K 6L 6M 6P 6Q 6R	ARR ARR	ARR ARR	ARR ARR	ARR ARR	Al Dahhan,M Barua,D Barua,S Forciniti,D Liang,X Ludlow,D Luks,C Neogi,P Park,J Rezaei,F Rownaghi,A Smith,J Wang,J Westenberg,D Wang,J
6100 <b>Advanced Chemical Engineering Thermodynamics</b>	3.0- 3.0	74702	LEC	1A	MWF	01:00 - 01:50 pm	BERTELS	00B12A	Wang,J

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
6300 <b>Biomaterials II</b> Prerequisite: Graduate Standing. (Co-listed with BIO SCI 6210, MS&E 6310)	3.0- 3.0	76597	LEC	1A	TTh	12:30 - 01:45 pm	TMH	00256	Jung,S

## Chemistry

1000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	74746	IND	6A	ARR	ARR	ARR		Whitefield,P
1100 <b>Introduction To Laboratory Safety &amp; Hazardous Materials</b>	1.0- 1.0	74742	LEC	1A	MTWThF	05:00 - 05:50 pm	CASTL	LEACH	Whitefield,P Roark,S
	1.0- 1.0	74743	LEC	1B	MTWThF	12:00 - 12:50 pm	SHNK	000G3	Whitefield,P
	1.0- 1.0	74744	LEC	1C	ARR	ARR	ARR		Whitefield,P
1110 <b>Introduction To Chemistry</b>	1.0- 1.0	74745	LEC	1A	Th	11:00 - 11:50 am	SHNK	00305	Woelk,K
1310 <b>General Chemistry I</b> Prerequisite: Entrance requirements.	4.0- 4.0	74710	LEC	1AA	MW	09:00 - 09:50 am	SHNK	000G3	Winiarz,J
	4.0- 4.0	74717	LEC	1BB	MW	10:00 - 10:50 am	SHNK	000G3	Winiarz,J
	4.0- 4.0	74724	LEC	1CC	MW	09:00 - 09:50 am	ARR		Winiarz,J
	4.0- 4.0	74726	LEC	1DD	MW	10:00 - 10:50 am	ARR		Winiarz,J
	0.0- 0.0	74711	RSD	2E1	T	08:00 - 09:50 am	IDE	00202	Winiarz,J
	0.0- 0.0	74712	RSD	2E2	T	10:00 - 11:50 am	IDE	00202	Winiarz,J
	0.0- 0.0	74713	RSD	2E3	T	12:00 - 01:50 pm	IDE	00202	Winiarz,J
	0.0- 0.0	74714	RSD	2E4	T	02:00 - 03:50 pm	IDE	00202	Winiarz,J
	0.0- 0.0	74715	RSD	2F1	T	09:00 - 10:50 am	IDE	00206	Winiarz,J
	0.0- 0.0	74716	RSD	2F2	T	11:00 - 12:50 pm	IDE	00206	Winiarz,J
	0.0- 0.0	75890	RSD	2F3	T	01:00 - 02:50 pm	IDE	00206	Winiarz,J

	0.0-0.0	75964	RSD	2F4	T	03:00 - 04:50 pm	IDE	00206	Winiarz,J
			<b>MOTR CHEM 150: Chemistry I</b>						
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	0.0-0.0	74718	RSD	2G1	Th	08:00 - 09:50 am	IDE	00202	Winiarz,J
			<b>MOTR CHEM 150: Chemistry I</b>						
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	0.0-0.0	74719	RSD	2G2	Th	10:00 - 11:50 am	IDE	00202	Winiarz,J
			<b>MOTR CHEM 150: Chemistry I</b>						
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	0.0-0.0	74720	RSD	2G3	Th	12:00 - 01:50 pm	IDE	00202	Winiarz,J
			<b>MOTR CHEM 150: Chemistry I</b>						
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	0.0-0.0	74721	RSD	2G4	Th	02:00 - 03:50 pm	IDE	00202	Winiarz,J
			<b>MOTR CHEM 150: Chemistry I</b>						
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	0.0-0.0	74722	RSD	2H1	Th	09:00 - 10:50 am	IDE	00206	Winiarz,J
			<b>MOTR CHEM 150: Chemistry I</b>						
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	0.0-0.0	74723	RSD	2H2	Th	11:00 - 12:50 pm	IDE	00206	Winiarz,J
			<b>MOTR CHEM 150: Chemistry I</b>						
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	0.0-0.0	75891	RSD	2H3	Th	01:00 - 02:50 pm	IDE	00206	Winiarz,J
			<b>MOTR CHEM 150: Chemistry I</b>						
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	0.0-0.0	75962	RSD	2H4	Th	03:00 - 04:50 pm	IDE	00206	Winiarz,J
			<b>MOTR CHEM 150: Chemistry I</b>						
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	0.0-0.0	74725	RSD	2J1	ARR	ARR	ARR		Winiarz,J
			Course module is on-line asynchronous.						
			<b>MOTR CHEM 150: Chemistry I</b>						
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
1319			<b>General Chemistry Laboratory</b>						
			Prerequisite: Preceded or accompanied by both Chem 1310 and Chem 1100.						
	1.0-1.0	74727	LAB	3A1	T	08:00 - 10:50 am	SHNK	00201	
			<b>Chem Majors Only</b>						
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	74728	LAB	3A2	T	08:00 - 10:50 am	SHNK	00212	
			<b>Chem Majors Only</b>						
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	74729	LAB	3B1	T	08:00 - 10:50 am	SHNK	00201	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	74730	LAB	3B2	T	08:00 - 10:50 am	SHNK	00212	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	74731	LAB	3C1	T	01:00 - 03:50 pm	SHNK	00201	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	74732	LAB	3C2	T	01:00 - 03:50 pm	SHNK	00212	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	74733	LAB	3D1	T	01:00 - 03:50 pm	SHNK	00201	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	74734	LAB	3D2	T	01:00 - 03:50 pm	SHNK	00212	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	74735	LAB	3E1	T	06:00 - 08:50 pm	SHNK	00201	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	74736	LAB	3E2	T	06:00 - 08:50 pm	SHNK	00212	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	76094	LAB	3F1	T	06:00 - 08:50 pm	SHNK	00201	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	76095	LAB	3F2	T	06:00 - 08:50 pm	SHNK	00212	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	74737	LAB	3G1	Th	08:00 - 10:50 am	SHNK	00201	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	74738	LAB	3G2	Th	08:00 - 10:50 am	SHNK	00212	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	74739	LAB	3H1	Th	08:00 - 10:50 am	SHNK	00201	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						
	1.0-1.0	74740	LAB	3H2	Th	08:00 - 10:50 am	SHNK	00212	
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>						

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR	
	1.0- 1.0	76787	LAB	3J1	Th	01:00 - 03:50 pm	SHNK	00201		
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>							
	1.0- 1.0	76788	LAB	3J2	Th	01:00 - 03:50 pm	SHNK	00212		
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>							
	1.0- 1.0	76920	LAB	3K1	Th	01:00 - 03:50 pm	SHNK	00201		
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>							
	1.0- 1.0	76921	LAB	3K2	Th	01:00 - 03:50 pm	SHNK	00212		
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>							
	1.0- 1.0	76958	LAB	3L1	Th	06:00 - 08:50 pm	SHNK	00201		
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>							
	1.0- 1.0	76959	LAB	3L2	Th	06:00 - 08:50 pm	SHNK	00212		
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>							
	1.0- 1.0	76960	LAB	3M1	Th	06:00 - 08:50 pm	SHNK	00201		
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>							
	1.0- 1.0	76961	LAB	3M2	Th	06:00 - 08:50 pm	SHNK	00212		
			<b>MOTR CHEM 150L: Chemistry I with Lab</b>							
1320	<b>General Chemistry II</b> Prerequisites: Chem 1310 with a grade of "C" or better and Chem 1319.	3.0- 3.0	74741	LEC	1A	TTh	08:00 - 09:15 am	SHNK	000G3	Stavropoulos,P
2002	<b>Cooperative Work Training</b>	1.0- 3.0	76459	IND	6A	ARR	ARR	ARR		Whitefield,P
2100	<b>Master Student</b>	1.0- 1.0	74747	LEC	1A	W	06:00 - 07:00 pm	H-SS	000G5	Collier,H
2210	<b>Organic Chemistry I</b> Prerequisites: Chem 1310, 1319, 1320; or Chem 1351.	4.0- 4.0	74748	LEC	1A	TTh	09:30 - 10:45 am	SHNK	000G3	Sotiriou-Leventis,C
				LEC	1A	W	01:00 - 01:50 pm	SHNK	000G3	
2219	<b>Organic Chemistry I Lab</b> Prerequisites: Preceded or accompanied by Chem 2210 and Chem 1100.	1.0- 1.0	74749	LAB	3A	M	01:00 - 01:50 pm	SHNK	00305	
				<b>Chem Majors Only</b>						
				LAB	3A	M	02:00 - 03:50 pm	SHNK	00303	Bone,T
				<b>Chem Majors Only</b>						
		1.0- 1.0	75777	LAB	3B	T	02:00 - 02:50 pm	SHNK	00305	Bone,T
				LAB	3B	T	03:00 - 04:50 pm	SHNK	00303	
		1.0- 1.0	74750	LAB	3C	Th	02:00 - 02:50 pm	SHNK	00305	
				LAB	3C	Th	03:00 - 04:50 pm	SHNK	00303	Bone,T
		1.0- 1.0	77900	LAB	3D	F	02:00 - 02:50 pm	SHNK	00305	Bone,T
				LAB	3D	F	03:00 - 04:50 pm	SHNK	00303	
		1.0- 1.0	78286	LAB	3E	M	06:00 - 06:50 pm	SHNK	00305	Bone,T
				LAB	3E	M	07:00 - 08:50 pm	SHNK	00303	
		1.0- 1.0	78294	LAB	3F	T	06:00 - 06:50 pm	SHNK	00305	Bone,T
				LAB	3F	T	07:00 - 08:50 pm	SHNK	00303	
2220	<b>Organic Chemistry II</b> Prerequisites: Grade of "C" or better in Chem 2210.	4.0- 4.0	75999	LEC	1A	TTh	08:00 - 09:15 am	H-SS	000G5	Reddy,V
				LEC	1A	W	01:00 - 01:50 pm	BERTELS	00B10	
2229	<b>Organic Chemistry II Lab</b> Prerequisites: Chem 2219 or Chem 2289, preceded or accompanied by both Chem 2220 and Chem 1100.	1.0- 1.0	76402	LAB	3A	W	02:00 - 02:50 pm	SHNK	00305	Bone,T
				<b>Communication Emphasized</b>						
				LAB	3A	W	03:00 - 04:50 pm	SHNK	00303	
				<b>Communication Emphasized</b>						
		1.0- 1.0	77614	LAB	3B	W	06:00 - 06:50 pm	SHNK	00305	Bone,T
				<b>Communication Emphasized</b>						
				LAB	3B	W	07:00 - 08:50 pm	SHNK	00303	
				<b>Communication Emphasized</b>						
		1.0- 1.0	78287	LAB	3C	Th	06:00 - 06:50 pm	SHNK	00305	Bone,T
				<b>Communication Emphasized</b>						
				LAB	3C	Th	07:00 - 08:50 pm	SHNK	00303	
				<b>Communication Emphasized</b>						
2310	<b>Inorganic Chemistry I</b>	3.0- 3.0	77159	LEC	1A	MWF	08:00 - 08:50 am	SHNK	00305	Nath,M
2510	<b>Analytical Chemistry I</b> Prerequisites: Chem 1320 and preceded or accompanied by Chem 1100.	4.0- 4.0		LEC	1A	MWF	11:00 - 11:50 am	MCNT	00114	Nam,P
		4.0- 4.0	75907	LAB	3A	T	02:00 - 02:50 pm	EMGT	00104	Nam,P
				LAB	3A	T	03:00 - 04:50 pm	SHNK	00307	
		4.0- 4.0	76014	LAB	3B	Th	02:00 - 02:50 pm	EMGT	00104	Nam,P
				LAB	3B	Th	03:00 - 04:50 pm	SHNK	00307	
3410	<b>Chemical Thermodynamics I</b> Prerequisites: Physics 1111 or Physics 1135; accompanied or preceded by either Math 1215 or Math 1221.	3.0- 3.0	74751	LEC	1A	MWF	08:00 - 08:50 am	SHNK	000G3	Woelk,K
3419	<b>Physical Chemistry Laboratory I</b> Prerequisites: Preceded or accompanied by both Chem 3410 and Chem 1100.	1.0- 1.0	76494	LAB	3A	W	01:00 - 01:50 pm	SHNK	00305	Grubbs,G
				LAB	3A	W	02:00 - 03:50 pm	SHNK	00125	

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR	
3430 <b>Chemical Kinetics I</b> Prerequisite: Chem 3410.	3.0- 3.0	74752	LEC	1A	MWF	09:00 - 09:50 am	TMH	00249	Dawes,R	
3459 <b>Accelerated Physical Chemistry Laboratory</b> Prerequisites: Preceded or accompanied by both Chem 3420 and Chem 1100.	2.0- 2.0	76922	LAB	3A	W	01:00 - 01:50 pm	SHNK	00305	Grubbs,G	
			LAB	3A	W	02:00 - 05:50 pm	SHNK	00307		
3510 <b>Analytical Chemistry II</b> Prerequisites: Chem 1100, Chem 2510, Chem 2220 and Chem 3410.	4.0- 4.0		LEC	1A	MWF	10:00 - 10:50 am	SHNK	00305	Kapila,S	
	4.0- 4.0	74754	LAB	3A	M	01:00 - 03:50 pm	SHNK	00241	Kapila,S	
4000 <b>Special Problems</b> Prerequisite: Preceded or accompanied by Chem 1100 or an equivalent training program approved by S&T. Consent of instructor required.	0.0- 6.0	74755	IND	6A	ARR	ARR	ARR		Ercal,N	
	0.0- 6.0	77310	IND	6B	ARR	ARR	ARR		Winiarz,J	
	0.0- 6.0	77353	IND	6C	ARR	ARR	ARR		Woelk,K	
	0.0- 6.0	77591	IND	6D	ARR	ARR	ARR		Nath,M	
4010 <b>Undergraduate Seminar</b>	1.0- 1.0	74756	RSD	2A	ARR	ARR	ARR		Ercal,N	
	1.0- 1.0	74757	RSD	2B	ARR	ARR	ARR		Long,G	
	1.0- 1.0	74758	RSD	2C	<b>CANCELLED</b>					
	1.0- 1.0	77129	RSD	2D	ARR	ARR	ARR		Schuman,T	
4099 <b>Undergraduate Research</b> Prerequisite: Must meet departmental requirements for instruction in laboratory safety. Consent of instructor required.	0.0- 6.0	74762	IND	6A	ARR	ARR	ARR		Choudhury,A	
	0.0- 6.0	76092	IND	6B	ARR	ARR	ARR		Dawes,R	
	0.0- 6.0	74763	IND	6C	ARR	ARR	ARR		Ercal,N	
	0.0- 6.0	74764	IND	6D	ARR	ARR	ARR		Grubbs,G	
	0.0- 6.0	74765	IND	6F	ARR	ARR	ARR		Kapila,S	
	0.0- 6.0	74766	IND	6G	ARR	ARR	ARR		Leventis,N	
	0.0- 6.0	74767	IND	6H	ARR	ARR	ARR		Long,G	
	0.0- 6.0	74768	IND	6J	<b>CANCELLED</b>					
	0.0- 6.0	75794	IND	6K	ARR	ARR	ARR		Mochalin,V	
	0.0- 6.0	76093	IND	6L	ARR	ARR	ARR		Nam,P	
	0.0- 6.0	74769	IND	6M	ARR	ARR	ARR		Nath,M	
	0.0- 6.0	74770	IND	6N	ARR	ARR	ARR		Reddy,V	
	0.0- 6.0	74771	IND	6P	ARR	ARR	ARR		Schuman,T	
	0.0- 6.0	74772	IND	6Q	ARR	ARR	ARR		Shi,H	
	0.0- 6.0	74773	IND	6R	ARR	ARR	ARR		Sotiriou-Leventis,C	
	0.0- 6.0	74774	IND	6T	ARR	ARR	ARR		Stavropoulos,P	
	0.0- 6.0	75677	IND	6U	ARR	ARR	ARR		Switzer,J	
	0.0- 6.0	75795	IND	6V	ARR	ARR	ARR		Van De Mark,M	
	0.0- 6.0	74775	IND	6W	ARR	ARR	ARR		Wang,R	
	0.0- 6.0	76663	IND	6X	ARR	ARR	ARR		Whitefield,P	
	0.0- 6.0	76923	IND	6Y	ARR	ARR	ARR		Winiarz,J	
	0.0- 6.0	77160	IND	6Z	ARR	ARR	ARR		Woelk,K	
4210 <b>Intermediate Organic Chemistry I</b> Prerequisite: Chem 2220.	3.0- 3.0	74759	LEC	1A	MWF	11:00 - 11:50 am	SHNK	00305	Leventis,N	
4310 <b>Selected Topics In Inorganic Chemistry</b>	3.0- 3.0	77161	LEC	1A	TTh	12:30 - 01:45 pm	SHNK	00305	Long,G	
4610 <b>General Biochemistry</b> Prerequisite: Chem 2220.	3.0- 3.0	74760	LEC	1A	TTh	11:00 - 12:15 pm	BERTELS	00B12A	Ercal,N	
4619 <b>General Biochemistry Laboratory</b> Prerequisites: Preceded or accompanied by both Chem 4610 and Chem 1100.	2.0- 2.0	75888	LAB	3A	TTh	02:00 - 04:50 pm	SHNK	00313	Wang,R	
4630 <b>Introduction to Bio-Nanotechnology</b> Prerequisite: At least junior standing.	3.0- 3.0	77286	LEC	1A	MW	11:00 - 12:15 pm	NOR	00208	Wang,R	
4710 <b>Principles Of Environmental Monitoring</b> Prerequisites: Chem 2210; Physics 1111 or Physics 1135.	3.0- 3.0	78173	LEC	1A	MWF	09:00 - 09:50 am	SHNK	00305	Whitefield,P	
4810 <b>Chemistry And Inherent Properties Of Polymers</b> Prerequisite: Chem 1320 or Met Eng 1210. (Co-listed with MS&E 4810)	3.0- 3.0	74761	LEC	1A	MWF	12:00 - 12:50 pm	SHNK	00305	Schuman,T	
4819 <b>Polymer Science Laboratory</b> Prerequisite: Chem 4810 or MS&E 4810 and preceded or accompanied by Chem 1100. (Co-listed with MS&E 4819)	1.0- 1.0	78296	LAB	3A	T	08:00 - 11:50 am	SHNK	00305	Schuman,T	
			LAB	3A	T	11:00 - 01:50 pm	SHNK	00303		
5099 <b>Master Research</b> Prerequisite: Must meet departmental training requirements for laboratory safety. Consent of instructor required.	0.0- 6.0	76702	IND	6A	ARR	ARR	ARR		Choudhury,A	
	0.0- 6.0	76703	IND	6B	ARR	ARR	ARR		Dawes,R	
	0.0- 6.0	76704	IND	6C	ARR	ARR	ARR		Ercal,N	
	0.0- 6.0	76705	IND	6D	ARR	ARR	ARR		Grubbs,G	
	0.0- 6.0	76706	IND	6E	ARR	ARR	ARR		Kapila,S	



CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
	0.0- 6.0	76707	IND	6F	ARR	ARR	ARR		Leventis,N
	0.0- 6.0	76708	IND	6G	ARR	ARR	ARR		Long,G
	0.0- 6.0	76709	IND	6H	<b>CANCELLED</b>				
	0.0- 6.0	76710	IND	6J	ARR	ARR	ARR		Mochalin,V
	0.0- 6.0	76711	IND	6K	ARR	ARR	ARR		Nam,P
	0.0- 6.0	76712	IND	6L	ARR	ARR	ARR		Nath,M
	0.0- 6.0	76713	IND	6M	ARR	ARR	ARR		Reddy,V
	0.0- 6.0	76714	IND	6N	ARR	ARR	ARR		Schuman,T
	0.0- 6.0	76715	IND	6P	ARR	ARR	ARR		Shi,H
	0.0- 6.0	76716	IND	6Q	ARR	ARR	ARR		Sotiriou-Leventis,C
	0.0- 6.0	76717	IND	6R	ARR	ARR	ARR		Stavropoulos,P
	0.0- 6.0	76718	IND	6T	ARR	ARR	ARR		Switzer,J
	0.0- 6.0	76719	IND	6U	ARR	ARR	ARR		Van De Mark,M
	0.0- 6.0	76720	IND	6V	ARR	ARR	ARR		Wang,R
	0.0- 6.0	76721	IND	6W	ARR	ARR	ARR		Whitefield,P
	0.0- 6.0	76924	IND	6X	ARR	ARR	ARR		Winiarz,J
	0.0- 6.0	77163	IND	6Y	ARR	ARR	ARR		Woelk,K
5100	1.0- 1.0	77099	LEC	1A	MTWThF	12:00 - 12:50 pm	SHNK	000G3	Whitefield,P
	Prerequisites: Graduate standing.								
5210	3.0- 3.0	76697	LEC	1A	MWF	11:00 - 11:50 am	SHNK	00305	Leventis,N
	Prerequisite: Chem 2220.								
5310	3.0- 3.0	77162	LEC	1A	TTh	12:30 - 01:45 pm	SHNK	00305	Long,G
5610	3.0- 3.0	76699	LEC	1A	TTh	11:00 - 12:15 pm	BERTELS	00B12A	Ercal,N
	Prerequisite: Chem 2220								
5619	2.0- 2.0	76700	LAB	3A	TTh	02:00 - 04:50 pm	SHNK	00313	Wang,R
	Prerequisites: Preceded or accompanied by Chem 5610 and Chem 1100 or an equivalent training program approved by S&T.								
5630	3.0- 3.0	77287	LEC	1A	MW	11:00 - 12:15 pm	NOR	00208	Wang,R
	Prerequisite: At least junior standing.								
5710	3.0- 3.0	78174	LEC	1A	MWF	09:00 - 09:50 am	SHNK	00305	Whitefield,P
	Prerequisites: Chem 2210, Physics 2111.								
5810	3.0- 3.0	76701	LEC	1A	MWF	12:00 - 12:50 pm	SHNK	00305	Schuman,T
	Prerequisite: Chem 1320 or Met Eng 1210. (Co-listed with MS&E 5810)								
5819	1.0- 1.0	78310	LAB	3A	T	10:00 - 10:50 am	CH	00103	Schuman,T
			LAB	3A	T	11:00 - 01:50 pm	SHNK	00303	
	Prerequisite: Chem 4810 or MS&E 4810 or Chem 5810 or MS&E 5810 or Chem Eng 5310, preceded or accompanied by Chem 1100 or Chem 5100 or an equivalent training program approved by S&T. (Co-listed with MS&E 5819)								
6000	0.0- 6.0	74776	IND	6A	ARR	ARR	ARR		Ercal,N
	0.0- 6.0	78367	IND	6B	ARR	ARR	ARR		Dawes,R
	Prerequisite: Preceded or accompanied by Chem 4 or an equivalent training program approved by S&T. Consent of instructor required.								
6001	3.0- 3.0	77926	LEC	1A	TTh	12:30 - 01:45 pm	CSF	00G5D	Ercal,N
	Prerequisites: Chem 4610.								
	3.0- 3.0	77927	LEC	1B	<b>CANCELLED</b>				
6010	1.0- 1.0	74777	RSD	2A	M	04:00 - 06:00 pm	SHNK	000G3	Long,G
6040	0.0- 0.0	74796	IND	6A	ARR	ARR	ARR		Whitefield,P
	Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate office permission required.								
6050	1.0- 1.0	74797	IND	6A	ARR	ARR	ARR		Whitefield,P
	Doctoral students only. Graduate office permission required.								
6099	0.0-15.0	74778	IND	6A	ARR	ARR	ARR		Choudhury,A
	0.0-15.0	74779	IND	6B	ARR	ARR	ARR		Collier,H
	0.0-15.0	74780	IND	6C	ARR	ARR	ARR		Dawes,R
	0.0-15.0	74781	IND	6D	ARR	ARR	ARR		Ercal,N
	0.0-15.0	74782	IND	6E	ARR	ARR	ARR		Grubbs,G



CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR	
	3.0- 3.0	74606	LEC	1E	TTh	09:30 - 10:45 am	IDE	00105	Koen,M	
									Scheduled common evening exams are on Wednesdays, Sept. 12th, Oct. 10th, Nov. 7th, and Dec. 5th from 5:00-6:00pm. <b>See 'Notes' for Evening Exams</b>	
	3.0- 3.0	74607	LEC	1F	TTh	11:00 - 12:15 pm	IDE	00105	Koen,M	
									Scheduled common evening exams are on Wednesdays, Sept. 12th, Oct. 10th, Nov. 7th, and Dec. 5th from 5:00-6:00pm. <b>See 'Notes' for Evening Exams</b> LEC 1F ARR ARR ARR Scheduled common evening exams are on Wednesdays, Sept. 12th, Oct. 10th, Nov. 7th, and Dec. 5th from 5:00-6:00pm. <b>See 'Notes' for Evening Exams</b>	
	3.0- 3.0	77100	LEC	1J	MWF	10:00 - 10:50 am	BCH	00121	Koen,M	
									Scheduled common evening exams are on Wednesdays, Sept. 12th, Oct. 10th, Nov. 7th, and Dec. 5th from 5:00-6:00pm.	
2210	<b>Mechanics Of Materials</b> Prerequisite: Civ Eng 2200 with grade of "C" or better.	3.0- 3.0	75974	LEC	1A	MWF	10:00 - 10:50 am	BCH	00120	Libre,N
									Evening exams will be held on Sept 10, Oct 8, Nov 5, and Dec 3rd. <b>See 'Notes' for Evening Exams</b>	
		3.0- 3.0	74608	LEC	1B	MWF	11:00 - 11:50 am	BCH	00120	Libre,N
									Evening exams will be held on Sept 10, Oct 8, Nov 5, and Dec 3rd. <b>See 'Notes' for Evening Exams</b>	
		3.0- 3.0	75968	LEC	1C	TTh	09:30 - 10:45 am	BCH	00124	Hernandez,E
									Evening exams will be held on Sept 10, Oct 8, Nov 5, and Dec 3rd. <b>See 'Notes' for Evening Exams</b>	
		3.0- 3.0	76400	LEC	1D	TTh	11:00 - 12:15 pm	BCH	00124	Wu,C
									Evening exams will be held on Sept 10, Oct 8, Nov 5, and Dec 3rd. <b>See 'Notes' for Evening Exams</b>	
		3.0- 3.0	76640	LEC	1E	TTh	12:30 - 01:45 pm	BCH	00124	Al-Assaf,A
									Evening exams will be held on Sept 10, Oct 8, Nov 5, and Dec 3rd. <b>See 'Notes' for Evening Exams</b>	
2211	<b>Materials Testing</b> Prerequisite: Preceded or accompanied by Civ Eng 2210.	1.0- 1.0	75781	LAB	3A	M	01:00 - 01:50 pm	IDE	000G4A	
										000G6 Libre,N
		1.0- 1.0	75803	LAB	3B	M	03:00 - 03:50 pm	IDE	000G4A	Libre,N
										000G6
		1.0- 1.0	74609	LAB	3C	M	05:00 - 05:50 pm	IDE	000G4A	Libre,N
										000G6
		1.0- 1.0	74612	LAB	3D	T	01:00 - 01:50 pm	IDE	000G4A	Libre,N
										000G6
		1.0- 1.0	74610	LAB	3E	T	03:00 - 03:50 pm	IDE	000G4A	Libre,N
										000G6
		1.0- 1.0	76182	LAB	3F	T	05:00 - 05:50 pm	IDE	000G4A	Libre,N
										000G6
		1.0- 1.0	74611	LAB	3G	W	01:00 - 01:50 pm	IDE	000G4A	Libre,N
										000G6
		1.0- 1.0	74613	LAB	3H	W	03:00 - 03:50 pm	IDE	000G4A	Libre,N
										000G6
		1.0- 1.0	74614	LAB	3J	Th	01:00 - 01:50 pm	IDE	000G4A	Libre,N
										000G6
		1.0- 1.0	75884	LAB	3K	Th	03:00 - 03:50 pm	IDE	000G4A	Libre,N
										000G6
2401	<b>Fundamentals Of Surveying</b> Prerequisite: Preceded or accompanied by Math 1214 (or 1208). Time for LEC 1A must be allowed with each lab section.	3.0- 3.0		LEC	1A	MW	08:00 - 08:50 am	BCH	00125	Elgin,R
		3.0- 3.0	74799	LAB	3A	M	01:00 - 03:50 pm	BCH	00101	Elgin,R
		3.0- 3.0	74800	LAB	3B	T	12:30 - 03:15 pm	BCH	00101	Elgin,R
		3.0- 3.0	74801	LAB	3C	W	01:00 - 03:50 pm	BCH	00101	Elgin,R
		3.0- 3.0	75775	LAB	3D	Th	01:00 - 03:50 pm	BCH	00316	Elgin,R
		3.0- 3.0	77653	LAB	3E	F	01:00 - 03:50 pm	BCH	00316	Elgin,R

CATALOG #	COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR	
2601	<b>Fundamentals Of Environmental Engineering And Science</b> Prerequisites: Chem 1310, Chem 1301, or Chem 1351; Math 1214, Math 1212, or Math 1208. (Co-listed with Env Eng 2601)	3.0- 3.0		LEC	1A	MW	08:00 - 08:50 am	BCH	00209		
		3.0- 3.0		LEC	1B	MW	11:00 - 11:50 am	BCH	00209	Wang,J	
		3.0- 3.0	74823	LAB	3A1	M	01:00 - 03:50 pm	BCH	00209		
		3.0- 3.0	76183	LAB	3A2	T	01:00 - 03:50 pm	BCH	00209		
		3.0- 3.0	76431	LAB	3B1	W	01:00 - 03:50 pm	BCH	00209	Wang,J	
3116	<b>Construction Materials, Properties And Testing</b> Prerequisites: Civ Eng 2211 or Min Eng 3812; Civ Eng 3715 or both Geo Eng 1150 and Min Eng 3412.	3.0- 3.0	77442	LEC	1A	MWF	08:00 - 08:50 am	BCH	00110	Feys,D	
		Class will meet 3 lecture periods per week when labs do not meet. <b>See 'Notes'-Additional Meeting</b>									
		3.0- 3.0	77443	LEC	1B	MWF	10:00 - 10:50 am	BCH	00110	Ma,H	
		Class will meet 3 lecture periods per week when labs do not meet. <b>See 'Notes'-Additional Meeting</b>									
		0.0- 0.0	77444	LAB	3A	T		01:00 - 04:30 pm	BCH	00110	Feys,D
3201	<b>Structural Analysis I</b>	0.0- 0.0	77445	LAB	3B	Th	01:00 - 04:30 pm	BCH	00110	Ma,H	
		3.0- 3.0		LEC	1A	TTh	09:30 - 10:20 am	BCH	00318		
3210	<b>Structural Design in Metals</b> Prerequisite: Civ Eng 3201 with a grade of "C" or better. (Co-listed with Arch Eng 3210)	3.0- 3.0	77749	LAB	3A	Th	01:00 - 03:50 pm	BCH	00216		
		3.0- 3.0		LEC	1A	TTh	11:00 - 12:15 pm	BCH	00101	Yan,G	
3220	<b>Reinforced Concrete Design</b> Prerequisite: Civ Eng 3201 with grade of "C" or better. (Co-listed with Arch Eng 3220)	3.0- 3.0	74813	LAB	3A	F	01:00 - 03:50 pm	BCH	00121	Yan,G	
		3.0- 3.0		LEC	1A	MW	09:00 - 09:50 am	BCH	00315	Sneed,L	
3330	<b>Engineering Fluid Mechanics</b> Prerequisites: IDE 2350 or IDE 2340, and Math 3304, each with a grade of "C" or better.	3.0- 3.0		LEC	1B	MW	09:00 - 09:50 am	BCH	00315	Sneed,L	
		3.0- 3.0	74815	LAB	3A	Th	05:00 - 06:50 pm	BCH	00101	Sneed,L	
		3.0- 3.0	78125	LAB	3B	Th	01:00 - 03:50 pm	BCH	00318	Sneed,L	
3334	<b>Water Resources Engineering</b> Prerequisites: Civ Eng 3330 and Stat 3113 with grades of "C" or better.	3.0- 3.0	74817	LEC	1A	MWF	10:00 - 10:50 am	BERTELS	00B10	Mendoza,C	
		4.0- 4.0		LEC	1A	MWF	11:00 - 11:50 am	BCH	00315	Holmes,R	
		4.0- 4.0	74819	LAB	3A	F	01:00 - 03:50 pm	BCH	00315	Mohammed-Ali,W	
3500	<b>Transportation Engineering</b> Prerequisites: Civ Eng 2401 and Civ Eng 2003.	4.0- 4.0	76240	LAB	3B	M	01:00 - 03:50 pm	BCH	00121	Mohammed-Ali,W	
		3.0- 3.0		LEC	1A	TTh	09:30 - 10:20 am	BCH	00315	Sneed,M	
		3.0- 3.0	74807	LAB	3A	W	01:00 - 03:00 pm	BCH	00115	Wang,S	
3615	<b>Water And Wastewater Engineering</b> Prerequisites: Civ Eng 2601 and at least junior standing. (Co-listed with Env Eng 3615)	3.0- 3.0	75932	LAB	3B	W	03:00 - 05:00 pm	BCH	00115	Wang,S	
		3.0- 3.0	75921	LEC	1A	TTh	11:00 - 12:15 pm	BCH	00209	Wang,J	
3715	<b>Fundamentals of Geotechnical Engineering</b> Prerequisite: Geo Eng 1150 or Arch Eng 2103; Civ Eng 2210; and preceded or accompanied by Civ Eng 3330.	3.0- 3.0		LEC	1A	MWF	09:00 - 09:50 am	H-SS	000G5	Zhang,X	
		3.0- 3.0	74809	LAB	3A	M	01:00 - 02:50 pm	CE	00114	Zhang,X	
		3.0- 3.0	77610	LAB	3B	M	03:00 - 04:50 pm	CE	00114	Zhang,X	
		3.0- 3.0	74810	LAB	3C	W	01:00 - 02:50 pm	CE	00114	Zhang,X	
		3.0- 3.0	74811	LAB	3D	W	03:00 - 04:50 pm	CE	00114	Zhang,X	
3842	<b>Fundamentals of Building Systems</b> Prerequisites: Physics 2135, Math 2222, and Junior Standing.	3.0- 3.0	76259	LAB	3F	T	01:00 - 02:50 pm	CE	00114	Zhang,X	
		3.0- 3.0	74820	LEC	1A	TTh	08:00 - 09:15 am	BCH	00121	Gillis,W	
4010	<b>Senior Seminar: Engineering In A Global Society</b> Prerequisite: Senior standing. (Co-listed with Arch Eng and Env Eng 4010)	1.0- 1.0	74805	RSD	2A	W	12:00 - 12:50 pm	BCH	00120	Burken,J	
4097	<b>Senior Design Project</b> Prerequisite: Civ Eng 4448 or Arch Eng 4448. (Co-listed with Arch Eng 4097 and Env Eng 4097)	3.0- 3.0	74824	LEC	1A	M	01:00 - 03:50 pm	BCH	00120		
				LEC	1A	M	01:00 - 03:50 pm	BCH	00123		
				LEC	1A	M	01:00 - 03:50 pm	BCH	00122	Showalter,W	
4099	<b>Undergraduate Research</b>	0.0- 6.0	76035	IND	6A	ARR	ARR	ARR		Abdelrahman,M	
		0.0- 6.0	74841	IND	6B	ARR	ARR	ARR		Baur,S	
		0.0- 6.0	75746	IND	6C	ARR	ARR	ARR		Burken,J	
		0.0- 6.0	74842	IND	6D	ARR	ARR	ARR		Chen,G	
		0.0- 6.0	74843	IND	6E	ARR	ARR	ARR		Deng,W	
		0.0- 6.0	74844	IND	6F	ARR	ARR	ARR		ElGawady,M	
	0.0- 6.0	74845	IND	6G	ARR	ARR	ARR		Elgin,R		

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR	
	0.0- 6.0	76036	IND	6H	ARR	ARR	ARR		Feys,D	
	0.0- 6.0	74846	IND	6J	ARR	ARR	ARR		Fitch,M	
	0.0- 6.0	74847	IND	6K	ARR	ARR	ARR		Hu,X	
	0.0- 6.0	74848	IND	6L	ARR	ARR	ARR		Khayat,K	
	0.0- 6.0	74849	IND	6M	ARR	ARR	ARR		Libre,N	
	0.0- 6.0	74850	IND	6N	ARR	ARR	ARR		Liu,X	
	0.0- 6.0	74851	IND	6P	ARR	ARR	ARR		Ma,H	
	0.0- 6.0	74852	IND	6Q	ARR	ARR	ARR		Mendoza,C	
	0.0- 6.0	74853	IND	6R	ARR	ARR	ARR		Myers,J	
	0.0- 6.0	74854	IND	6T	ARR	ARR	ARR		Oerther,D	
	0.0- 6.0	76037	IND	6U	ARR	ARR	ARR		Richardson,D	
	0.0- 6.0	76882	IND	6V	ARR	ARR	ARR		Schonberg,W	
	0.0- 6.0	76883	IND	6W	ARR	ARR	ARR		Showalter,W	
	0.0- 6.0	77407	IND	6X	ARR	ARR	ARR		Sneed,L	
	0.0- 6.0	77629	IND	6Y	ARR	ARR	ARR		Wang,J	
	0.0- 6.0	77968	IND	6Z	ARR	ARR	ARR		Wu,C	
	0.0- 6.0	78135	IND	6AA	ARR	ARR	ARR		Yan,G	
	0.0- 6.0	78136	IND	6BB	ARR	ARR	ARR		Zhang,X	
	0.0- 6.0	78315	IND	6CC	ARR	ARR	ARR		El-adaway,I	
4448	<b>Fundamentals Of Contracts And Construction Engineering</b>	3.0- 3.0	74821	LEC	1A	TTh	08:00 - 09:15 am	BCH	00213	Showalter,W
	Prerequisite: Senior Standing. (Co-listed with Arch Eng 4448)									
										<b>UM Shared Course-Primary</b>
		3.0- 3.0	77471	LEC	1B	TTh	09:30 - 10:45 am	BCH	00101	Showalter,W
4729	<b>Foundation Engineering</b>	3.0- 3.0	74816	LEC	1A	TTh	09:30 - 10:45 am	BCH	00317	Stephenson,R
	Prerequisite: Civ Eng 3715.									
5000	<b>Special Problems</b>	0.0- 6.0	76033	IND	6A	ARR	ARR	ARR		Abdelrahman,M
		0.0- 6.0	74825	IND	6B	ARR	ARR	ARR		Baur,S
		0.0- 6.0	74826	IND	6C	ARR	ARR	ARR		Burken,J
		0.0- 6.0	75745	IND	6D	ARR	ARR	ARR		Chen,G
		0.0- 6.0	74827	IND	6E	ARR	ARR	ARR		Deng,W
		0.0- 6.0	74828	IND	6F	ARR	ARR	ARR		ElGawady,M
		0.0- 6.0	74829	IND	6H	ARR	ARR	ARR		Feys,D
		0.0- 6.0	74830	IND	6J	ARR	ARR	ARR		Fitch,M
		0.0- 6.0	76034	IND	6K	ARR	ARR	ARR		Hu,X
		0.0- 6.0	74831	IND	6L	ARR	ARR	ARR		Khayat,K
		0.0- 6.0	74832	IND	6M	ARR	ARR	ARR		Libre,N
		0.0- 6.0	74833	IND	6N	ARR	ARR	ARR		Liu,X
		0.0- 6.0	74834	IND	6P	ARR	ARR	ARR		Ma,H
		0.0- 6.0	74835	IND	6Q	ARR	ARR	ARR		Mendoza,C
		0.0- 6.0	74836	IND	6R	ARR	ARR	ARR		Myers,J
		0.0- 6.0	74837	IND	6T	ARR	ARR	ARR		Oerther,D
		0.0- 6.0	74838	IND	6U	ARR	ARR	ARR		Richardson,D
		0.0- 6.0	74839	IND	6V	ARR	ARR	ARR		Schonberg,W
		0.0- 6.0	76884	IND	6W	ARR	ARR	ARR		Showalter,W
		0.0- 6.0	76885	IND	6X	ARR	ARR	ARR		Sneed,L
		0.0- 6.0	76886	IND	6Y	ARR	ARR	ARR		Wang,J
		0.0- 6.0	77969	IND	6Z	ARR	ARR	ARR		Wu,C
		0.0- 6.0	78137	IND	6AA	ARR	ARR	ARR		Yan,G
		0.0- 6.0	78138	IND	6BB	ARR	ARR	ARR		Zhang,X
		0.0- 6.0	78385	IND	6CC	ARR	ARR	ARR		El-adaway,I
5112	<b>Bituminous Materials</b>	3.0- 3.0		LEC	1A	MW	09:00 - 09:50 am	BCH	00316	Abdelrahman,M
	Prerequisite: Preceded or accompanied by Civ Eng 3116.	3.0- 3.0	77593	LAB	3A	W	03:00 - 05:50 pm	BCH	00110	Abdelrahman,M
5117	<b>Asphalt Pavement Design</b>	3.0- 3.0	77472	LEC	1A	TTh	09:30 - 10:45 am	BCH	00110	Richardson,D
	Prerequisite: Civ Eng 3116 with a grade of "C" or better.									
5205	<b>Structural Analysis II</b>	3.0- 3.0	78126	LEC	1A	TTh	12:30 - 01:45 pm	BERTELS	00B12B	Schonberg,W
	Prerequisites: Civ Eng 3201 or Arch Eng 3201. (Co-listed with Arch Eng 5205)									
5206	<b>Low-Rise Building Analysis and Design</b>	3.0- 3.0	77225	LEC	1A	MWF	11:00 - 11:50 am	CS	00209	Thomas,J
	Prerequisite: Preceded and/or accompanied by Civ -Arch Eng 3210 or Civ-Arch Eng 3220. (Co-listed with Arch Eng 5206)									

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
5250 <b>Air Transportation</b> Prerequisite: Civ Eng 3500 with a grade of "C" or better.	3.0- 3.0		LEC	1A	TTh	02:00 - 03:15 pm	CS	00209	Hu,X
			<b>UM Shared Course-Secondary</b>						
	3.0- 3.0	78140	LAB	3A	ARR	ARR	ARR		Hu,X
			<b>UM Shared Course-Secondary</b>						
5270 <b>Structural Masonry Design</b> Prerequisites: Arch Eng 3201 or Civ Eng 3201. (Co-listed with Arch Eng 5270)	3.0- 3.0	77967	LEC	1A	Th	04:00 - 06:30 pm	BERTELS	00B12A	Mcmillian,D
5337 <b>River Mechanics And Sediment Transport</b> Prerequisite: Civ Eng 3330 with a grade of "C" or better.	3.0- 3.0	77475	LEC	1A	MWF	08:00 - 08:50 am	BCH	00317	Mendoza,C
5338 <b>Hydrologic Engineering</b> Prerequisite: Civ Eng 3334 with a grade of "C" or better.	3.0- 3.0	78134	LEC	1A	MWF	09:00 - 09:50 am	TMH	00260	Pierson,M
5442 <b>Construction Planning and Scheduling Strategies</b> Prerequisite: Civ Eng or Arch Eng 4448. (Co-listed with Arch Eng 5442)	3.0- 3.0	78129	LEC	1A	M	04:00 - 06:30 pm	IDE	00105	Bodapati,S
5445 <b>Construction Methods</b> Prerequisite: Civ Eng 4448 with a grade of "C" or better. (Co-listed with Arch Eng 5445)	3.0- 3.0	74840	LEC	1A	MWF	10:00 - 10:50 am	BCH	00315	Showalter,W
5448 <b>Green Engineering: Analysis of Constructed Facilities</b> Prerequisites: Civ Eng 4448 or Arch Eng 4448; and Junior Standing. (Co-listed with Arch Eng 5448)	3.0- 3.0	76418	LEC	1A	MWF	10:00 - 10:50 am	BCH	00213	Scott-Showalter,P
5449 <b>Engineering and Construction Contract Specifications</b> Prerequisite: Civ Eng 4448 with a grade of "C" or better. (Co-listed with Arch Eng 5449)	3.0- 3.0	77254	LEC	1A	MWF	09:00 - 09:50 am	BCH	00215	El-adaway,I
5513 <b>Traffic Engineering</b> Prerequisite: Civ Eng 3500 with a grade of "C" or better.	3.0- 3.0	76498	LEC	1A	Th	07:00 - 09:30 pm	BCH	00213	Hu,X
			<b>UM Shared Course-Primary</b>						
5605 <b>Environmental Systems Modeling</b> Prerequisites: Env Eng/Civ Eng 2601, Env Eng/Civ Eng 2602 and Env Eng/ Civ Eng 3663; or Graduate standing. (Co-listed with Env Eng 5605)	3.0- 3.0	77228	LEC	1A	TTh	12:30 - 01:45 pm	FUL	00107A	Oerther,D
			LEC	1A	ARR	ARR	ARR		
5642 <b>Sustainability, Population, Energy, Water, and Materials</b> Prerequisite: Senior or graduate standing. (Co-listed with Env Eng 5642 and Arch Eng 5642)	3.0- 3.0	76395	LEC	1A	TTh	09:30 - 10:45 am	BCH	00213	Fitch,M
5662 <b>Air Pollution Control Methods</b> Prerequisite: Civ Eng 3330; or graduate standing. (Co-listed with Env Eng 5662)	3.0- 3.0	77970	LEC	1A	MWF	10:00 - 10:50 am	BCH	00209	Fitch,M
5715 <b>Intermediate Soil Mechanics</b> Prerequisites: Civ Eng 3715 with grade of "C" or better.	3.0- 3.0	76529	LEC	1A	Th	04:00 - 06:30 pm	BCH	00213	McLain,K
5716 <b>Geotechnical Earthquake Engineering</b> Prerequisites: Civ Eng 3715 with a grade of "C" or better.	3.0- 3.0	77227	LEC	1A	TTh	11:00 - 12:15 pm	EMGT	00103	Kottke,A
5750 <b>Transportation Applications of Geophysics</b> Prerequisite: Junior level standing or higher. (Co-listed with Geo Eng 5761 and Geophys 5761)	3.0- 3.0		LEC	1A	MW	12:00 - 12:50 pm	CS	00209	Anderson,N
	3.0- 3.0	76125	LAB	3A	M	02:00 - 02:50 pm	CS	00209	Anderson,N
6000 <b>Special Problems</b>	0.0- 6.0	75787	IND	6B	ARR	ARR	ARR		Abdelrahman,M
	0.0- 6.0	74855	IND	6C	ARR	ARR	ARR		Baur,S
	0.0- 6.0	74856	IND	6D	ARR	ARR	ARR		Burken,J
	0.0- 6.0	75747	IND	6E	ARR	ARR	ARR		Chen,G
	0.0- 6.0	74857	IND	6F	ARR	ARR	ARR		Deng,W
	0.0- 6.0	74858	IND	6G	ARR	ARR	ARR		ElGawady,M
	0.0- 6.0	74859	IND	6H	ARR	ARR	ARR		Feys,D
	0.0- 6.0	74860	IND	6J	ARR	ARR	ARR		Fitch,M

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
	0.0- 6.0	74861	IND	6K	ARR	ARR	ARR		Gillis,W
	0.0- 6.0	76038	IND	6L	ARR	ARR	ARR		Hu,X
	0.0- 6.0	74862	IND	6M	ARR	ARR	ARR		Khayat,K
	0.0- 6.0	74863	IND	6N	ARR	ARR	ARR		Libre,N
	0.0- 6.0	74864	IND	6P	ARR	ARR	ARR		Liu,X
	0.0- 6.0	74865	IND	6Q	ARR	ARR	ARR		Ma,H
	0.0- 6.0	74866	IND	6R	ARR	ARR	ARR		Mendoza,C
	0.0- 6.0	74867	IND	6T	ARR	ARR	ARR		Myers,J
	0.0- 6.0	74868	IND	6U	ARR	ARR	ARR		Oerther,D
	0.0- 6.0	74869	IND	6V	ARR	ARR	ARR		Schonberg,W
	0.0- 6.0	76887	IND	6W	ARR	ARR	ARR		Showalter,W
	0.0- 6.0	78141	IND	6X	ARR	ARR	ARR		Sneed,L
	0.0- 6.0	78142	IND	6Y	ARR	ARR	ARR		Wang,J
	0.0- 6.0	78143	IND	6Z	ARR	ARR	ARR		Yan,G
	0.0- 6.0	78144	IND	6AA	ARR	ARR	ARR		Zhang,X
	0.0- 6.0	78386	IND	6BB	ARR	ARR	ARR		El-adaway,I
6001 <b>Special Topics</b> Prerequisites: CE 3715 or other introductory courses in soil mechanics. CE 6715 is not required but strongly recommended.	3.0- 3.0	78148	LEC	1A	M	07:00 - 09:30 pm	BCH	00121	Zhang,X
									Soil Mechanics for Unsat Oils
	3.0- 3.0	78150	LEC	1B	TTh	02:00 - 03:15 pm	LIB	000G14	Chen,G
									Structural Health Monitoring
6040 <b>Oral Examination</b> Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate office permission required.	0.0- 0.0	74885	IND	6A	ARR	ARR	ARR		Burken,J
6050 <b>Continuous Registration</b> Doctoral students only. Graduate office permission required.	1.0- 1.0	74886	IND	6A	ARR	ARR	ARR		Burken,J
6099 <b>Research</b> Consent of instructor required.	0.0-15.0	74870	IND	6A	ARR	ARR	ARR		Abdelrahman,M
	0.0-15.0	75748	IND	6B	ARR	ARR	ARR		Bate,B
	0.0-15.0	74871	IND	6C	ARR	ARR	ARR		Baur,S
	0.0-15.0	75749	IND	6D	ARR	ARR	ARR		Burken,J
	0.0-15.0	74872	IND	6E	ARR	ARR	ARR		Chen,G
	0.0-15.0	74873	IND	6F	ARR	ARR	ARR		Deng,W
	0.0-15.0	74874	IND	6G	ARR	ARR	ARR		ElGawady,M
	0.0-15.0	74875	IND	6H	ARR	ARR	ARR		Feys,D
	0.0-15.0	75772	IND	6J	ARR	ARR	ARR		Fitch,M
	0.0-15.0	76039	IND	6K	ARR	ARR	ARR		Hu,X
	0.0-15.0	74876	IND	6L	ARR	ARR	ARR		Khayat,K
	0.0-15.0	74877	IND	6M	ARR	ARR	ARR		Libre,N
	0.0-15.0	74878	IND	6N	ARR	ARR	ARR		Liu,X
	0.0-15.0	74879	IND	6P	ARR	ARR	ARR		Ma,H
	0.0-15.0	74880	IND	6Q	ARR	ARR	ARR		Mendoza,C
	0.0-15.0	74881	IND	6R	ARR	ARR	ARR		Myers,J
	0.0-15.0	74882	IND	6T	ARR	ARR	ARR		Oerther,D
	0.0-15.0	74883	IND	6U	ARR	ARR	ARR		Schonberg,W
	0.0-15.0	74884	IND	6V	ARR	ARR	ARR		Showalter,W
	0.0-15.0	76889	IND	6W	ARR	ARR	ARR		Sneed,L
	0.0-15.0	76890	IND	6X	ARR	ARR	ARR		Wang,J
	0.0-15.0	78145	IND	6Y	ARR	ARR	ARR		Wu,C
	0.0-15.0	78146	IND	6Z	ARR	ARR	ARR		Yan,G
	0.0-15.0	78147	IND	6AA	ARR	ARR	ARR		Zhang,X
	0.0-15.0	78316	IND	6BB	ARR	ARR	ARR		El-adaway,I
6211 <b>Plastic Analysis And Design Of Metal Structures</b>	3.0- 3.0	78156	LEC	1A	TTh	08:00 - 09:15 am	FUL	00107A	ElGawady,M
6221 <b>Advanced Behavior Of Reinforced And Prestressed Concrete</b> Prerequisite: Civ Eng 3220 with grade of "C" or better.	3.0- 3.0	77476	LEC	1A	<b>CANCELLED</b>				
6340 <b>Urban Hydrology</b> Prerequisite: Civ Eng 3333.	3.0- 3.0	76641	LEC	1A	W	04:00 - 06:30 pm	BCH	00213	Wilson,L
6442 <b>Construction Administration, Planning and Control</b> Prerequisite: Preceded or accompanied by Civ Eng 5445.	3.0- 3.0	76495	LEC	1A	M	04:00 - 06:30 pm	BERTELS	00B12B	Berry,R

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
6600 <b>Chemical Principles In Environmental Engineering</b> Prerequisite: Graduate Standing. (Co-listed with Env Eng 6600)	3.0- 3.0	76313	LEC	1A	MWF	11:00 - 11:50 am	BCH	00316	
6601 <b>Biological Principles In Environmental Engineering Systems</b> (Co-listed with Env En 6601)	3.0- 3.0		LEC	1A	TTh	11:00 - 12:15 pm	LIB	000G14	Oerther,D
			LEC	1A	ARR	ARR	ARR		
6712 <b>Computer Modeling in Geotechnical Engineering</b> Prerequisite: Civ Eng 3715 and graduate standing.	3.0- 3.0	76892	LAB	3A	ARR	ARR	ARR		Oerther,D
	3.0- 3.0	77230	LEC	1A	M	04:00 - 06:30 pm	CS	00209	Deng,W
6713 <b>Dynamics of Earth Materials</b> Preceded or accompanied by Civ Eng 5715.	3.0- 3.0	78154	LEC	1A	ARR	ARR	ARR		Zhang,X

## Computer Engineering

2210 <b>Introduction to Digital Logic</b>	3.0- 3.0	74950	LEC	1B	TTh	09:30 - 10:45 am	EECH	00101	Stanley,R
	3.0- 3.0	74951	LEC	1C	TTh	12:30 - 01:45 pm	MCNT	00216	Stanley,R
	3.0- 3.0	76813	LEC	1D	MWF	02:00 - 02:50 pm	EECH	00102	Cetinkaya,E
	3.0- 3.0	77307	LEC	1E	TTh	08:00 - 09:15 am	EECH	00G31	Wunsch,D
2211 <b>Computer Engineering Laboratory</b> Preceded or accompanied by Comp Eng 2210.	1.0- 1.0	74952	LAB	3A	M	03:00 - 04:50 pm	EECH	00209A	Stanley,R
			<b>Communication Emphasized</b>						
	1.0- 1.0	74953	LAB	3B	T	02:30 - 04:20 pm	EECH	00209A	Stanley,R
			<b>Communication Emphasized</b>						
	1.0- 1.0	76138	LAB	3C	T	06:10 - 08:00 pm	EECH	00209A	Stanley,R
			<b>Communication Emphasized</b>						
	1.0- 1.0	75706	LAB	3D	W	01:00 - 02:50 pm	EECH	00209A	Stanley,R
			<b>Communication Emphasized</b>						
	1.0- 1.0	74955	LAB	3E	W	03:00 - 04:50 pm	EECH	00209A	Stanley,R
			<b>Communication Emphasized</b>						
	1.0- 1.0	74956	LAB	3F	W	06:10 - 08:00 pm	EECH	00209A	Stanley,R
			<b>Communication Emphasized</b>						
	1.0- 1.0	74957	LAB	3G	Th	02:30 - 04:20 pm	EECH	00209A	Stanley,R
			<b>Communication Emphasized</b>						
	1.0- 1.0	75980	LAB	3H	Th	06:10 - 08:00 pm	EECH	00209A	Stanley,R
			<b>Communication Emphasized</b>						
	1.0- 1.0	75926	LAB	3J	F	03:00 - 04:50 pm	EECH	00209A	Stanley,R
			<b>Communication Emphasized</b>						
	1.0- 1.0	74954	LAB	3K	F	01:00 - 02:50 pm	EECH	00209A	Stanley,R
			<b>Communication Emphasized</b>						
	1.0- 1.0	76785	LAB	3L	F	06:10 - 08:00 pm	EECH	00209A	Stanley,R
			<b>Communication Emphasized</b>						
	1.0- 1.0	77747	LAB	3M	M	08:10 - 10:00 pm	EECH	00209A	Stanley,R
			<b>Communication Emphasized</b>						
3001 <b>Special Topics</b> Prerequisites: A grade of "C" or better in Elec Eng 2120, Math 3108, and Math 3304; passing the Elec Eng Advancement Exam II. (Co-listed with Elec Eng 3001)	3.0- 3.0	78117	LEC	1A	<b>CANCELLED</b>				
3002 <b>Cooperative Engineering Training</b> Prerequisite: Consent of the Electrical and Computer Engineering Department required.	1.0- 1.0	74958	IND	6A	ARR	ARR	ARR		Stanley,R
3110 <b>Computer Organization and Design</b> Prerequisites: COMP ENG 2210; preceded or accompanied by COMP ENG 3150.	3.0- 3.0	76063	LEC	1A	TTh	02:00 - 03:15 pm	BCH	00124	Choi,M
3150 <b>Introduction to Microcontrollers and Embedded System Design</b> Prerequisites: COMP ENG 2210 and COMP SCI 1570 (or programming equivalent) each with grade of "C" or better.	3.0- 3.0	74959	LEC	1A	TTh	12:30 - 01:45 pm	EECH	00G31	Hurson,A
	3.0- 3.0	75670	LEC	1B	TTh	09:30 - 10:45 am	EECH	00G31	Hurson,A
3151 <b>Digital Engineering Lab II</b> Prerequisites: Comp Eng 2210, Comp Eng 2211, and Comp Sci 1570 (or programming equivalent) each with grade of "C" or better. Preceded or accompanied by Comp Eng 3150.	1.0- 1.0	74960	LAB	3A	M	08:00 - 09:00 am	EE	00106	Hurson,A
			<b>Communication Emphasized</b>						
			LAB	3A	M	09:00 - 09:50 am	EECH	00209A	
			<b>Communication Emphasized</b>						
	1.0- 1.0	76384	LAB	3B	M	10:00 - 11:00 am	EE	00106	Hurson,A
			<b>Communication Emphasized</b>						



CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
				LAB 3B	M	11:00 - 11:50 am	EECH	00209A	
				<b>Communication Emphasized</b>					
	1.0- 1.0	74961		LAB 3C	M	06:10 - 07:10 pm	EE	00106	Hurson,A
				<b>Communication Emphasized</b>					
				LAB 3C	M	07:10 - 08:00 pm	EECH	00209A	
				<b>Communication Emphasized</b>					
	1.0- 1.0	76062		LAB 3E	W	10:00 - 11:00 am	EE	00106	Hurson,A
				<b>Communication Emphasized</b>					
				LAB 3E	W	11:00 - 11:50 am	EECH	00209A	
				<b>Communication Emphasized</b>					
	1.0- 1.0	77082		LAB 3F	<b>CANCELLED</b>				
	1.0- 1.0	77676		LAB 3G	M	05:00 - 05:50 pm	EE	00106	Hurson,A
				<b>Communication Emphasized</b>					
				LAB 3G	M	06:00 - 06:50 pm	EECH	00209A	
				<b>Communication Emphasized</b>					
4000	<b>Special Problems</b>	1.0- 6.0	74962	IND 6A	ARR	ARR	ARR		Sedighsarvestani,S
	Consent of instructor required.	1.0- 6.0	75944	IND 6B	ARR	ARR	ARR		Stanley,R
		1.0- 6.0	76836	IND 6C	ARR	ARR	ARR		Zawodniok,M
4096	<b>Computer Engineering Senior Project I</b>	1.0- 1.0		RSD 2A	M	12:00 - 12:50 pm	EECH	00G31	Woodley,R
	Prerequisites: Comp Eng 2210, either Econ 1100 or Econ 1200, either English 3560 or English 1160, Comp Eng 3150, Comp Eng 3151, Comp Eng 3110, and Elec Eng 2200.	1.0- 1.0		RSD 2B	M	12:00 - 12:50 pm	EECH	00G31	Woodley,R
		1.0- 1.0	74967	LAB 3A	M	03:00 - 03:50 pm	TMH	00295	Woodley,R
		1.0- 1.0	74969	LAB 3B	W	03:00 - 03:50 pm	EECH	00102	Zawodniok,M
4097	<b>Computer Engineering Senior Project II</b>	3.0- 3.0	74970	LAB 3A	MW	03:00 - 04:50 pm	EECH	00G31	Ferguson,I
	Prerequisites: Comp Eng 4096 with a grade of "C" or better, Stat 3117 or Stat 3115 or Stat 5643, and Sp&M S 1185.	3.0- 3.0	74971	LAB 3B	TTh	03:30 - 05:20 pm	EECH	00G31	Woodley,R
4099	<b>Undergraduate Research</b>	1.0- 6.0	75790	IND 6A	ARR	ARR	ARR		Beetner,D
		1.0- 6.0	74964	IND 6B	ARR	ARR	ARR		Hurson,A
		1.0- 6.0	74965	IND 6C	ARR	ARR	ARR		Sedighsarvestani,S
		1.0- 6.0	77865	IND 6D	ARR	ARR	ARR		Wunsch,D
5099	<b>Special Research And Thesis</b>	1.0-15.0	74973	IND 6A	ARR	ARR	ARR		Acar,L
	Prerequisite: Consent of the instructor required.	1.0-15.0	74892	IND 6B	ARR	ARR	ARR		Beetner,D
		1.0-15.0	75718	IND 6C	ARR	ARR	ARR		Cetinkaya,E
		1.0-15.0	74974	IND 6D	ARR	ARR	ARR		Choi,M
		1.0-15.0	74975	IND 6E	ARR	ARR	ARR		Drewniak,J
		1.0-15.0	74976	IND 6F	ARR	ARR	ARR		Erickson,K
		1.0-15.0	75698	IND 6G	ARR	ARR	ARR		Fan,J
		1.0-15.0	75789	IND 6H	ARR	ARR	ARR		Hurson,A
		1.0-15.0	74977	IND 6J	ARR	ARR	ARR		Khilkevich,V
		1.0-15.0	74978	IND 6K	ARR	ARR	ARR		McMillin,B
		1.0-15.0	74979	IND 6L	ARR	ARR	ARR		Modares,H
		1.0-15.0	74980	IND 6M	ARR	ARR	ARR		Pommerenke,D
		1.0-15.0	74981	IND 6N	ARR	ARR	ARR		Sarangapani,J
		1.0-15.0	74982	IND 6P	ARR	ARR	ARR		Sedighsarvestani,S
		1.0-15.0	76343	IND 6Q	ARR	ARR	ARR		Stanley,R
		1.0-15.0	76349	IND 6R	ARR	ARR	ARR		Watkins,S
		1.0-15.0	76361	IND 6T	ARR	ARR	ARR		Wu,C
		1.0-15.0	76517	IND 6U	ARR	ARR	ARR		Wunsch,D
		1.0-15.0	76818	IND 6V	ARR	ARR	ARR		Zawodniok,M
5120	<b>Digital Computer Design</b>	3.0- 3.0	76474	LEC 1A	T	07:00 - 09:30 pm	TMH	00260	Hanna,W
	Prerequisites: COMP ENG 3150 and COMP ENG 3151.								
5160	<b>Embedded Processor System Design</b>	3.0- 3.0	76659	LEC 1A	MWF	11:00 - 11:50 am	CS	00205	Younger,R
	Prerequisites: COMP ENG 3150 or equivalent or 80x51 processor experience.								
5210	<b>Introduction To VLSI Design</b>	3.0- 3.0	77288	LEC 1A	TTh	12:30 - 01:45 pm	EECH	00103	Hwang,C
	Prerequisites: Elec Eng 2200 and Comp Eng 2210.								
5310	<b>Computational Intelligence</b>	3.0- 3.0	75840	LEC 1A	W	04:00 - 06:30 pm	TMH	00260	Corns,S
	Prerequisite: Graduate Standing. (Co-listed with Elec Eng 5310 and Sys Eng 5211)								

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
5410 <b>Introduction to Computer Communication Networks</b> Prerequisites: Comp Eng 3150 or computer hardware competency and Stat 3117 or Stat 3115 or Stat 5643 or equivalent.	3.0- 3.0	76578	LEC	1A	TTh	11:00 - 12:15 pm	EECH	00103	Sedighsarvestani,S
5420 <b>Introduction to Network Security</b> Prerequisite: Comp Eng 5410 or Comp Sci 5600.	3.0- 3.0	76598	LEC	1A	MWF	10:00 - 10:50 am	TMH	00260	Cetinkaya,E
5430 <b>Wireless Networks</b> Prerequisites: Hardware competency, Elec Eng 3420 or Comp Eng 3150 and graduate standing. (Co-listed with Elec Eng 5430 and Sys Eng 5323.)	3.0- 3.0 3.0- 3.0	 77502	LEC LAB	1A 3A	MW F	08:00 - 08:50 am 08:00 - 08:50 am	CS CS	00209 00209	Zawodniok,M Zawodniok,M
5510 <b>Fault-Tolerant Digital Systems</b> Prerequisites: Comp Eng 2210 and Comp Eng 2211.	3.0- 3.0	74963	LEC	1A	TTh	08:00 - 09:15 am	EECH	00112	Choi,M
6000 <b>Special Problems</b> Prerequisite: Consent of instructor.	1.0- 6.0	74972	IND	6A	ARR	ARR	ARR		Choi,M
6040 <b>Oral Examination</b>	0.0- 0.0	76744	IND	6A	ARR	ARR	ARR		Beetner,D
6050 <b>Continuous Registration</b>	1.0- 1.0	74983	IND	6A	ARR	ARR	ARR		Beetner,D
6099 <b>Special Research and Thesis</b> Prerequisite: Consent of the instructor required.	1.0-15.0	76726	IND	6A	ARR	ARR	ARR		Acar,L
	1.0-15.0	76727	IND	6B	ARR	ARR	ARR		Beetner,D
	1.0-15.0	76728	IND	6C	ARR	ARR	ARR		Cetinkaya,E
	1.0-15.0	76729	IND	6D	ARR	ARR	ARR		Choi,M
	1.0-15.0	76730	IND	6E	ARR	ARR	ARR		Drewniak,J
	1.0-15.0	76731	IND	6F	ARR	ARR	ARR		Erickson,K
	1.0-15.0	76732	IND	6G	ARR	ARR	ARR		Fan,J
	1.0-15.0	76733	IND	6H	ARR	ARR	ARR		Hurson,A
	1.0-15.0	76734	IND	6J	ARR	ARR	ARR		McMillin,B
	1.0-15.0	76735	IND	6K	ARR	ARR	ARR		Modares,H
	1.0-15.0	76736	IND	6L	ARR	ARR	ARR		Sarangapani,J
	1.0-15.0	76737	IND	6M	ARR	ARR	ARR		Sedighsarvestani,S
	1.0-15.0	76738	IND	6N	ARR	ARR	ARR		Stanley,R
	1.0-15.0	76739	IND	6P	ARR	ARR	ARR		Watkins,S
	1.0-15.0	76740	IND	6Q	ARR	ARR	ARR		Wu,C
	1.0-15.0	76741	IND	6R	ARR	ARR	ARR		Wunsch,D
	1.0-15.0	76742	IND	6T	ARR	ARR	ARR		Zawodniok,M
6310 <b>Markov Decision Processes</b> Prerequisite: Graduate standing in background of probability or statistics. (Co-listed with Mech Eng 6447, Aero Eng 6447, Eng Mgt 6410 and Comp Sci 6202)	3.0- 3.0	77612	LEC	1A	M	04:00 - 06:30 pm	TMH	00260	Wunsch,D
6440 <b>Network Performance Analysis</b> Prerequisites: Comp Eng 5410 or Comp Sci 4600; Stat 3117 or 5643. (Co-listed with Comp Sci 6602)	3.0- 3.0	77931	LEC	1A	TTh	03:30 - 04:45 pm	EECH	00103	Sedighsarvestani,S

## Computer Science

1200 <b>Discrete Mathematics for Computer Science</b> Prerequisite: A grade of "C" or better in both Comp Sci 1570 and one of Math 1120, Math 1140, Math 1208, and Math 1214.	3.0- 3.0	74908	LEC	1A	MWF	02:00 - 02:50 pm	H-SS	000G5	Zhu,P
1570 <b>Introduction To Programming</b>	3.0- 3.0 3.0- 3.0 3.0- 3.0 3.0- 3.0 3.0- 3.0	74900 74901 76543 76841 76842	LEC LEC LEC LEC LEC	1C 1E 1F 1G 1H	MWF MWF MWF MWF MWF	10:00 - 10:50 am 12:00 - 12:50 pm 01:00 - 01:50 pm 02:00 - 02:50 pm 03:00 - 03:50 pm	EECH CS CS CS CS	00G31 00202 00216 00203 00203	Price,C
1575 <b>Data Structures</b> Prerequisite: Grade of "C" or better in Comp Sci 1570.	3.0- 3.0	77456	LEC	1A	MWF	05:00 - 05:50 pm	EECH	00G31	Taylor,P
1580 <b>Introduction To Programming Laboratory</b> Prerequisite: Accompanied by Comp Sci 1570.	1.0- 1.0 1.0- 1.0 1.0- 1.0 1.0- 1.0	74902 74903 74904 76843	LAB LAB LAB LAB	3A 3B 3C 3D	T T T T	10:00 - 11:50 am 12:00 - 01:50 pm 02:00 - 03:50 pm 06:00 - 07:50 pm	CH TMH TMH TMH	00105 00251 00251 00251	

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
	1.0- 1.0	74905	LAB	3E	W	02:00 - 03:50 pm	TMH	00251	
	1.0- 1.0	76544	LAB	3F	W	04:00 - 05:50 pm	TMH	00251	
	1.0- 1.0	76844	LAB	3G	W	06:00 - 07:50 pm	TMH	00251	
1585 <b>Data Structures Laboratory</b> Prerequisite: Preceded or accompanied by Comp Sci 1575.	1.0- 1.0	77457	LAB	3A	M	02:00 - 03:50 pm	MCNutt	234	
	1.0- 1.0	77458	LAB	3B	M	12:00 - 01:50 pm	MCNutt	234	
1972 <b>Introduction to MATLAB Programming</b> Prerequisite: Accompanied by Comp Sci 1982 and a "C" or better grade in either Math 1208 or Math 1214.	2.0- 2.0	76666	LEC	1A	TTh	03:30 - 04:20 pm	SHNK	000G3	Zhu,P
1982 <b>MATLAB Programming Laboratory</b> Prerequisite: Accompanied by Comp Sci 1972.	1.0- 1.0	76667	LAB	3A	W	09:00 - 10:50 am	MCNutt	234	Zhu,P
	1.0- 1.0	76846	LAB	3B	W	12:00 - 01:50 pm	MCNutt	234	
	1.0- 1.0	77448	LAB	3C	W	02:00 - 03:50 pm	MCNutt	234	
	1.0- 1.0	78089	LAB	3D	W	04:00 - 05:50 pm	MCNutt	234	
	1.0- 1.0	78090	LAB	3E	W	06:00 - 07:50 pm	MCNutt	234	
	1.0- 1.0	78091	LAB	3F	W	08:00 - 09:50 pm	MCNutt	234	
2002 <b>Cooperative Work Training</b>	1.0- 5.0	74909	IND	6A	ARR	ARR	ARR		Price,C
2200 <b>Theory of Computer Science</b> Prerequisite: A grade of "C" or better in both Comp Sci 1200 and Comp Sci 1575.	3.0- 3.0	76053	LEC	1A	TTh	02:00 - 03:15 pm	PHYS	00104	Markowsky,G
2300 <b>File Structures and Introduction to Database Systems</b> Prerequisite: A "C" or better grade in Comp Sci 1510.	3.0- 3.0	77222	LEC	1A	TTh	09:30 - 10:45 am	CS	00207	Lin,D
	3.0- 3.0	74912	LEC	1B	TTh	11:00 - 12:15 pm	CS	00207	
2500 <b>Algorithms</b> Prerequisite: A grade of "C" or better in both Comp Sci 1200 and Comp Sci 1575; preceded by a grade of "C" or better in either Math 1208 or Math 1214, or accompanied by either Math 1208 or Math 1214.	3.0- 3.0	74913	LEC	1A	TTh	09:30 - 10:45 am	MCNT	00211	
	3.0- 3.0	76452	LEC	1B	TTh	03:30 - 04:45 pm	MCNT	00211	
3001 <b>Special Topics</b> Prerequisites: A grade of "C" or better in Comp Sci 2300, Comp Sci 2500, and in one of Stat 3113, Stat 3115, Stat 3117, or Stat 5643.	3.0- 3.0	78092	LEC	1A	TTh	02:00 - 03:15 pm	CS	00202	Fu,Y
									Intro to Data Science
3100 <b>Software Engineering I</b> Prerequisite: A "C" or better grade in Comp Sci 2500 and at least Junior standing.	3.0- 3.0	75876	LEC	1A	MWF	11:00 - 11:50 am	BERTELS	00B10	Gosnell,M
3200 <b>Introduction To Numerical Methods</b> Prerequisites: Program competency and a "C" or better grade in either Math 1215 or Math 1221.	3.0- 3.0	74910	LEC	1A	TTh	08:00 - 09:15 am	BCH	00101	Sabharwal,C
	3.0- 3.0	74911	LEC	1B	TTh	03:30 - 04:45 pm	TMH	00295	Sabharwal,C
3500 <b>Programming Languages And Translators</b> Prerequisite: A "C" or better grade in Comp Sci 2200.	3.0- 3.0	76222	LEC	1A	MWF	02:00 - 02:50 pm	CH	00104	Leopold,J
	3.0- 3.0	77449	LEC	1B	MWF	03:00 - 03:50 pm	CS	00207	Leopold,J
3600 <b>Introduction to Computer Security</b> Prerequisite: A "C" or better grade in Comp Sci 2500.	3.0- 3.0	76206	LEC	1A	MWF	12:00 - 12:50 pm	TMH	00199	Taylor,P
3800 <b>Introduction to Operating Systems</b> Prerequisites: A "C" or better grade in all of Comp Sci 1510, Comp Sci 1200, and Comp Eng 3150.	3.0- 3.0	74914	LEC	1A	MWF	09:00 - 09:50 am	MCNT	00211	Gosnell,M
	3.0- 3.0	77450	LEC	1B	MWF	10:00 - 10:50 am	MCNT	00216	Gosnell,M
4000 <b>Special Problems</b>	0.0- 6.0	75973	IND	6A	ARR	ARR	ARR		McMillin,B
	0.0- 6.0	77628	IND	6B	ARR	ARR	ARR		Tauritz,D
4001 <b>Special Topics</b> Prerequisites: A grade of "C" or better in COMP SCI/ECON 3001 - Skill Development for Entrepreneurs and Innovators. (Co-listed with Econ 4001)	2.0- 2.0		LEC	1A	M	05:00 - 06:30 pm	IDE	00202	Bachman,B
									Adv Explor and Innovation Meth
	2.0- 2.0	78206	LAB	3A	M	05:00 - 06:30 pm	IDE	00202	Bachman,B
									Adv Explor and Innovation Meth
	1.0- 1.0	78208	LAB	3B	M	04:00 - 04:50 pm	IDE	00202	Bachman,B
									Interpersonal Dynamics

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
4096 <b>Software Systems Development I</b> Prerequisites: 100 credit hours completed and a grade of "C" or better in both Comp Sci 3100 and one of Phil 3225, Phil 3235, Phil 4340, or Phil 4368.	3.0- 3.0	74929	LEC	1A	TTh	02:00 - 03:15 pm	TMH	00295	Morales,A
4097 <b>Software Systems Development II</b> Prerequisite: A "C" or better grade in Comp Sci 4096.	3.0- 3.0	74930	LEC	1A	TTh	02:00 - 03:15 pm	TMH	00295	Morales,A
4099 <b>Undergraduate Research</b>	0.0- 6.0	74922	IND	6A	ARR	ARR	ARR		Das,S
	0.0- 6.0	74928	IND	6B	ARR	ARR	ARR		Fu,Y
	0.0- 6.0	74924	IND	6C	ARR	ARR	ARR		Guo,Z
	0.0- 6.0	74925	IND	6D	ARR	ARR	ARR		Jiang,W
	0.0- 6.0	74926	IND	6E	ARR	ARR	ARR		Leopold,J
	0.0- 6.0	74927	IND	6F	ARR	ARR	ARR		Lin,D
	0.0- 6.0	74923	IND	6G	ARR	ARR	ARR		Madria,S
	0.0- 6.0	76428	IND	6J	ARR	ARR	ARR		McMillin,B
	0.0- 6.0	76446	IND	6K	ARR	ARR	ARR		Morales,A
	0.0- 6.0	76525	IND	6L	ARR	ARR	ARR		Sedighsarvestani,S
	0.0- 6.0	76698	IND	6M	ARR	ARR	ARR		Tauritz,D
	0.0- 6.0	76816	IND	6N	ARR	ARR	ARR		Taylor,P
	0.0- 6.0	77577	IND	6P	ARR	ARR	ARR		Xiong,H
	0.0- 6.0	77626	IND	6Q	ARR	ARR	ARR		Yin,Z
	0.0- 6.0	78249	IND	6R	ARR	ARR	ARR		Wunsch,D
5000 <b>Special Problems</b>	0.0- 6.0	74915	IND	6C	ARR	ARR	ARR		Leopold,J
	0.0- 6.0	74916	IND	6D	ARR	ARR	ARR		Lin,D
	0.0- 6.0	74917	IND	6E	ARR	ARR	ARR		Lutzen,K
	0.0- 6.0	74918	IND	6G	ARR	ARR	ARR		Madria,S
	0.0- 6.0	74919	IND	6H	ARR	ARR	ARR		McMillin,B
	0.0- 6.0	74921	IND	6J	ARR	ARR	ARR		Sabharwal,C
	0.0- 6.0	74920	IND	6K	ARR	ARR	ARR		Tauritz,D
5001 <b>Special Topics</b> Prerequisites: A grade of "C" or better in both COMP SCI 2500 and MATH 3108.	3.0- 3.0	78093	LEC	1A	MWF	01:00 - 01:50 pm	CS	00207	Morales,A
	3.0- 3.0	78211	LEC	1B	T	04:00 - 06:30 pm	IDE	00202	Bachman,B
5099 <b>Research</b>	0.0-16.0	74938	IND	6B	ARR	ARR	ARR		Das,S
	0.0-16.0	74940	IND	6C	ARR	ARR	ARR		Fu,Y
	0.0-16.0	76144	IND	6D	ARR	ARR	ARR		Guo,Z
	0.0-16.0	76137	IND	6E	ARR	ARR	ARR		Hurson,A
	0.0-16.0	74941	IND	6F	ARR	ARR	ARR		Jiang,W
	0.0-16.0	76139	IND	6H	ARR	ARR	ARR		Leopold,J
	0.0-16.0	74942	IND	6J	ARR	ARR	ARR		Lin,D
	0.0-16.0	74943	IND	6L	ARR	ARR	ARR		Madria,S
	0.0-16.0	74944	IND	6M	ARR	ARR	ARR		McMillin,B
	0.0-16.0	76143	IND	6N	ARR	ARR	ARR		Sabharwal,C
	0.0-16.0	74939	IND	6P	ARR	ARR	ARR		Sedighsarvestani,S
	0.0-16.0	74945	IND	6Q	ARR	ARR	ARR		Silvestri,S
	0.0-16.0	74946	IND	6R	ARR	ARR	ARR		Tauritz,D
	0.0-16.0	76381	IND	6T	ARR	ARR	ARR		Wunsch,D
	0.0-16.0	76810	IND	6U	ARR	ARR	ARR		Xiong,H
	0.0-16.0	76811	IND	6V	ARR	ARR	ARR		Yin,Z
5200 <b>Analysis Of Algorithms</b> Prerequisite: A "C" or better grade in Comp Sci 2500.	3.0- 3.0	76848	LEC	1A	TTh	11:00 - 12:15 pm	CS	00209	Markowsky,G
5300 <b>Database Systems</b> Prerequisite: A "C" or better grade in both Comp Sci 1200 and Comp Sci 2300.	3.0- 3.0	76577	LEC	1A	MWF	02:00 - 02:50 pm	BCH	00213	Gosnell,M
5401 <b>Evolutionary Computing</b> Prerequisite: A "C" or better grade in both Comp Sci 2500 and in a Statistics course.	3.0- 3.0	76849	LEC	1A	TTh	09:30 - 10:45 am	CS	00209	Tauritz,D
5402 <b>Introduction to Data Mining</b> Prerequisites: A grade of "C" or better in all of Comp Sci 2300, Comp Sci 2500, and one of Stat 3113, Stat 3115, Stat 3117 or Stat 5643.	3.0- 3.0	78094	LEC	1A	TTh	09:30 - 10:45 am	CS	00202	Fu,Y

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
5405 <b>Java Gui &amp; Visualization</b> Prerequisite: A "C" or better grade in Comp Sci 2500 or equivalent.	3.0- 3.0	75844	LEC	1A	TTh	11:00 - 12:15 pm	BCH	00318	Sabharwal,C
5500 <b>The Structure of a Compiler</b> Prerequisite: A "C" or better grade in both Comp Sci 3500 and Comp Sci 2500.	3.0- 3.0	78095	LEC	1A	MWF	11:00 - 11:50 am	BCH	00121	Leopold,J
5600 <b>Computer Networks</b> Prerequisite: A "C" or better grade in Comp Sci 3800.	3.0- 3.0	76664	LEC	1A	TTh	05:00 - 06:15 pm	CS	00202	Taylor,P

## Computer Science

5602 <b>Introduction to Cryptography</b> Prerequisites: A grade of "C" or better in COMP SCI 5200 or a grade of "B" or better in COMP SCI 2500.	3.0- 3.0	78096	LEC	1A	<b>CANCELLED</b>				
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## Computer Science

6000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	74931	IND	6A	ARR	ARR	ARR		Das,S
	0.0- 6.0	74932	IND	6B	ARR	ARR	ARR		Guo,Z
	0.0- 6.0	74933	IND	6C	ARR	ARR	ARR		Leopold,J
	0.0- 6.0	74934	IND	6E	ARR	ARR	ARR		Madria,S
	0.0- 6.0	74935	IND	6F	ARR	ARR	ARR		McMillin,B
	0.0- 6.0	74936	IND	6G	ARR	ARR	ARR		Sabharwal,C
	0.0- 6.0	74937	IND	6H	ARR	ARR	ARR		Tauritz,D
6001 <b>Special Topics</b> Prerequisites: A grade of "C" or better in both COMP SCI 3800 and COMP SCI 5200.	3.0- 3.0	78097	LEC	1A	TTh	02:00 - 03:15 pm	BERTELS	00B12B	Guo,Z
					Topics in RTS and CPS				
	3.0- 3.0	78098	LEC	1B	<b>CANCELLED</b>				
6010 <b>Seminar</b>	1.0- 1.0	76380	RSD	2A	M	10:00 - 10:50 am	CS	00209	Markowsky,G
6040 <b>Oral Examination</b> Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate office permission required.	0.0- 0.0	74947	IND	6A	ARR	ARR	ARR		Lin,D
6050 <b>Continuous Registration</b> Doctoral students only. Graduate office permission required.	1.0- 1.0	74948	IND	6A	ARR	ARR	ARR		Lin,D
6099 <b>Research Special Topics</b>	0.0-16.0	76645	IND	6B	ARR	ARR	ARR		Das,S
	0.0-16.0	76646	IND	6C	ARR	ARR	ARR		Ercal,F
	0.0-16.0	76647	IND	6D	ARR	ARR	ARR		Fu,Y
	0.0-16.0	76648	IND	6E	ARR	ARR	ARR		Guo,Z
	0.0-16.0	76649	IND	6F	ARR	ARR	ARR		Hurson,A
	0.0-16.0	76650	IND	6H	ARR	ARR	ARR		Jiang,W
	0.0-16.0	76651	IND	6J	ARR	ARR	ARR		Leopold,J
	0.0-16.0	76652	IND	6L	ARR	ARR	ARR		Lin,D
	0.0-16.0	76653	IND	6M	ARR	ARR	ARR		Madria,S
	0.0-16.0	76654	IND	6N	ARR	ARR	ARR		McMillin,B
	0.0-16.0	76655	IND	6P	ARR	ARR	ARR		Sabharwal,C
	0.0-16.0	76656	IND	6Q	ARR	ARR	ARR		Sedighsarvestani,S
	0.0-16.0	76657	IND	6R	ARR	ARR	ARR		Silvestri,S
	0.0-16.0	76658	IND	6T	ARR	ARR	ARR		Tauritz,D
	0.0-16.0	76814	IND	6U	ARR	ARR	ARR		Wunsch,D
	0.0-16.0	76815	IND	6V	ARR	ARR	ARR		Xiong,H
	0.0-16.0	77453	IND	6W	ARR	ARR	ARR		Yin,Z
6102 <b>Model Based Systems Engineering</b> Prerequisites: Graduate Standing. (Co-listed with SYS ENG 6542)	3.0- 3.0	78010	LEC	1A	F	04:00 - 06:30 pm	BERTELS	00B12A	Do,Q
6202 <b>Markov Decision Processes</b> Prerequisite: Graduate standing in background of probability or statistics. (Co-listed with Comp Eng 6310, Mech Eng 6447, Aero Eng 6447 and Eng Mgt 6410)	3.0- 3.0	76101	LEC	1A	M	04:00 - 06:30 pm	TMH	00260	Wunsch,D
6204 <b>Applied Graph Theory for Computer Science</b> Prerequisite: A grade of "C" or better in Comp Sci 5200.	3.0- 3.0	78360	LEC	1A	T	04:00 - 06:30 pm	CS	00209	Das,S

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
6304 <b>Cloud Computing and Big Data Management</b> Prerequisites: A grade of 'C' or better in both COMP SCI 5800 and either COMP SCI 5300 or COMP SCI 5402.	3.0- 3.0	76850	LEC	1A	Th	04:00 - 06:30 pm	CS	00209	Madria,S
6600 <b>Formal Methods in Computer Security</b> Prerequisites: A grade of "C" or better in both Comp Sci 3600 and Comp Sci 5200.	3.0- 3.0	78099	LEC	1A	TTh	08:00 - 09:15 am	CS	00209	McMillin,B
6601 <b>Privacy Preserving Data Integration and Analysis</b> Prerequisite: A "C" or better grade in both Comp Sci 5300 and Comp Sci 3600.	3.0- 3.0	77561	LEC	1A	<b>CANCELLED</b>				
6602 <b>Network Performance Analysis</b> Prerequisites: Comp Eng 5410 or Comp Sci 4600; Stat 3117 or 5643. (Co-listed with Comp Eng 6440)	3.0- 3.0	77933	LEC	1A	TTh	03:30 - 04:45 pm	EECH	00103	Sedighsarvestani,S

## Economics

1100 <b>Principles Of Microeconomics</b>	3.0- 3.0	74985	LEC	1A	MWF	11:00 - 11:50 am	EMGT	00103	Fikru,M
	3.0- 3.0	74984	LEC	1B	TTh	02:00 - 03:15 pm	SHNK	000G3	Park,E
	3.0- 3.0	76308	LEC	1C	TTh	12:30 - 01:45 pm	EMGT	00103	Park,E
1200 <b>Principles Of Macroeconomics</b>	3.0- 3.0	76412	LEC	1A	M	06:00 - 09:00 pm	BCH	00120	
	3.0- 3.0	74987	LEC	1B	MWF	03:00 - 03:50 pm	BCH	00125	Puslenghea,R
	3.0- 3.0	76413	LEC	1C	MWF	02:00 - 02:50 pm	TMH	00199	Puslenghea,R
	3.0- 3.0	74986	LEC	1D	TTh	12:30 - 01:45 pm	PHYS	00104	Zhou,Y
	3.0- 3.0	77085	LEC	1E	MWF	10:00 - 10:50 am	FUL	00227	Puslenghea,R
2100 <b>Intermediate Microeconomic Theory</b> Prerequisites: Econ 1100 and 1200.	3.0- 3.0	74990	LEC	1A	TTh	11:00 - 12:15 pm	EECH	00111	Park,E
2200 <b>Intermediate Macroeconomic Theory</b> Prerequisites: Econ 1100 and 1200.	3.0- 3.0	74991	LEC	1A	TTh	12:30 - 01:45 pm	EMGT	00102	Davis,M
3512 <b>Mining Industry Economics</b> Prerequisite: Econ 1100 or 1200. (Co-listed with Min Eng 3512)	3.0- 3.0	76198	LEC	1A	TTh	08:00 - 09:15 am	EMGT	00201	Johnson,C
4000 <b>Special Problems</b>	0.0- 6.0	76644	IND	6B	ARR	ARR	ARR		Gelles,G
4001 <b>Special Topics</b> Prerequisites: A grade of "C" or better in COMP SCI/ECON 3001 - Skill Development for Entrepreneurs and Innovators. (Co-listed with Comp Sci 4001)	2.0- 2.0		LEC	1A	M	05:00 - 06:30 pm	IDE	00202	Bachman,B
	2.0- 2.0	78204	LAB	3A	M	05:00 - 06:30 pm	IDE	00202	Bachman,B
	1.0- 1.0	78207	LAB	3B	M	04:00 - 04:50 pm	IDE	00202	Bachman,B
4085 <b>Internship</b> Prerequisites: Senior status; must have completed 24 hours in major.	0.0- 6.0	74992	IND	6A	ARR	ARR	ARR		Gelles,G
4440 <b>Environmental And Natural Resource Economics</b> Prerequisite: Econ 2100. (Co-listed with Min Eng 4523)	3.0- 3.0	76216	LEC	1A	MWF	10:00 - 10:50 am	CSF	00G5D	Fikru,M
4512 <b>Mine Management</b> Prerequisite: Completion of 50 credits toward Mining Engineering degree. (Co-listed with MIN ENG 4512)	3.0- 3.0	78267	LEC	1A	MWF	09:00 - 09:50 am	CS	00209	Weiss,D
4720 <b>International Finance</b> Prerequisite: Econ 2200.	3.0- 3.0	76091	LEC	1A	TTh	09:30 - 10:45 am	HARR	00107	Davis,M
5000 <b>Special Problems</b>	0.0- 6.0	76783	IND	6A	ARR	ARR	ARR		Bachman,B
5001 <b>Special Topics</b> Prerequisites: Senior or graduate standing. (Co-listed Eng Mgt 5001)	3.0- 3.0	78209	LEC	1B	T	04:00 - 06:30 pm	IDE	00202	Moore,C

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
5337 <b>Financial Mathematics</b> Prerequisites: Math 1215 or Math 1221, Econ 2100 or Econ 2200 or Finance 2150 or Econ 5160, Stat 3111 or Stat 3113 or Stat 3115 or Stat 3117 or Stat 5643. (Co-listed with Math 5737)	3.0- 3.0	78247	LEC	1A	MWF	01:00 - 01:50 pm	ROLLA	000G5	Bohner,M
5532 <b>Advanced Mining Economics</b> (Co-listed with MIN ENG 5532)	3.0- 3.0	77049	LEC	1A	ARR	ARR	ARR		Johnson,C

## Education

1040 <b>Perspectives In Education</b>	2.0- 2.0	77541	LEC	1A	T	08:00 - 08:50 am	CH	00103	Roberts,R
			LEC	1A	ARR	ARR	ARR		
1104 <b>Teacher Field Experience</b> Prerequisite: Educ 1040.	2.0- 2.0	74994	LAB	3A	T	01:00 - 01:50 pm	CH	00103	Carter,K
1164 <b>Aiding Elementary, Middle And Secondary Schools</b> Prerequisites: Educ 1040 and Educ 1104.	2.0- 2.0	74995	LAB	3A	Th	01:00 - 01:50 pm	CH	00103	Carter,K
1174 <b>School Organization &amp; Adm For Elementary &amp; Secondary Teachers</b> Prerequisites: Educ 1040 and Educ 1104.	2.0- 2.0	74996	LEC	1A	M	05:30 - 07:20 pm	CH	00103	Zalis,A
2102 <b>Educational Psychology</b> Prerequisite: Psych 1101. (Co-listed with Psych 2300)	3.0- 3.0	74993	LEC	1A	M	04:00 - 06:30 pm	BCH	00124	Spooner,P
3215 <b>Teaching of Reading in Elementary and Middle School</b> Prerequisite: Educ 1040.	3.0- 3.0	77882	LEC	1A	TTh	02:00 - 03:15 pm	CH	00103	Schwartz,M
3216 <b>Teaching Reading in Content Area</b>	3.0- 3.0	75838	LEC	1A	TTh	09:30 - 10:45 am	H-SS	00102	Long,D
3221 <b>Teaching Math in Elementary and Middle Schools</b> Prerequisite: Math 1120 or Math 1140. (Co-listed with Math 3921)	3.0- 3.0	77883	LEC	1A	TTh	11:00 - 12:15 pm	EMGT	00106	Schwartz,M
3340 <b>Current Issues In Educ:Performance Based Assessment, Intermediate</b>	3.0- 3.0	77544	LEC	1A	T	04:00 - 06:30 pm	CH	00103	Norman,S
4298 <b>Student Teaching Seminar</b> Prerequisites: Meet all requirements for student teaching and concurrently be enrolled in student teaching.	1.0- 1.0	74997	LEC	1A	F	08:00 - 01:00 pm	CH	00214	Carter,K
4299 <b>Student Teaching</b> Prerequisites: Professional standing and arrangements made previous semester.	12.0-12.0	74998	LEC	1A	ARR	ARR	ARR		Carter,K
4310 <b>Psychology Of The Exceptional Child</b> Prerequisite: Psych 1101. (Co-listed with Psych 4310)	3.0- 3.0	76660	LEC	1A	MWF	01:00 - 01:50 pm	H-SS	00103	Krueger,M

## Electrical Engineering

2100 <b>Circuits I</b> Prerequisites: Math 1215 (or 1221) with a grade of "C" or better. Students should enroll in Elec Eng 2100 and Elec Eng 2101 simultaneously.	3.0- 3.0	76877	LEC	1A	MWF	08:00 - 08:50 am	EECH	00104	Swift,T
	3.0- 3.0	74999	LEC	1B	MWF	09:00 - 09:50 am	EECH	00104	Wu,C
	3.0- 3.0	75000	LEC	1C	MWF	10:00 - 10:50 am	EECH	00104	Swift,T
	3.0- 3.0	75001	LEC	1D	TTh	11:00 - 12:15 pm	EECH	00101	Shrestha,B
2101 <b>Circuit Analysis Laboratory I</b> Prerequisite: Preceded or accompanied by Elec Eng 2100. A student who drops Elec Eng 2100 must also drop Elec Eng 2101.	1.0- 1.0	75002	LAB	3A	M	06:10 - 08:00 pm	EECH	00203	Swift,T
									<b>Communication Emphasized</b>
	1.0- 1.0	75733	LAB	3B	T	08:00 - 09:50 am	EECH	00203	Swift,T
									<b>Communication Emphasized</b>
	1.0- 1.0	75003	LAB	3C	T	10:00 - 11:50 am	EECH	00203	Swift,T
									<b>Communication Emphasized</b>
	1.0- 1.0	75004	LAB	3D	T	02:30 - 04:20 pm	EECH	00203	Swift,T
									<b>Communication Emphasized</b>
1.0- 1.0	75005	LAB	3E	W	01:00 - 02:50 pm	EECH	00203	Swift,T	
								<b>Communication Emphasized</b>	
1.0- 1.0	75006	LAB	3F	W	03:00 - 04:50 pm	EECH	00203	Swift,T	
								<b>Communication Emphasized</b>	
1.0- 1.0	75007	LAB	3H	Th	02:30 - 04:20 pm	EECH	00203	Swift,T	
								<b>Communication Emphasized</b>	
1.0- 1.0	75928	LAB	3J	Th	06:10 - 08:00 pm	EECH	00203	Swift,T	
								<b>Communication Emphasized</b>	

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR	
	1.0- 1.0	76352	LAB	3K	Th	10:00 - 11:50 am	EECH	00203	Swift,T	
						<b>Communication Emphasized</b>				
	1.0- 1.0	77305	LAB	3L	T	08:10 - 10:00 pm	EECH	00203	Swift,T	
						<b>Communication Emphasized</b>				
	1.0- 1.0	77306	LAB	3M	W	08:10 - 10:00 pm	EECH	00203	Swift,T	
						<b>Communication Emphasized</b>				
	1.0- 1.0	77340	LAB	3N	Th	12:30 - 02:20 pm	EECH	00203	Swift,T	
						<b>Communication Emphasized</b>				
2120	<b>Circuits II</b>	3.0- 3.0	75009	LEC	1B	WF	09:00 - 09:50 am	EECH	00102	Kaur,A
						On-line instruction to be arranged on Mondays.				
						LEC 1B ARR ARR	ARR			
						On-line instruction to be arranged on Mondays.				
		3.0- 3.0	75010	LEC	1C	WF	01:00 - 01:50 pm	EECH	00102	Shrestha,B
						Instruction to be arranged on Mondays				
						LEC 1C ARR ARR	ARR			
						Instruction to be arranged on Mondays				
2200	<b>Introduction to Electronic Devices</b>	3.0- 3.0	75981	LEC	1A	MWF	10:00 - 10:50 am	EECH	00101	Wu,C
	Prerequisites: Elec Eng 2100, Elec Eng 2101, and Physics 2135 each with grade of "C" or better; passing the Elec Eng Advancement Exam I. Students should enroll in Elec Eng 2200 and Elec Eng 2201 simultaneously.	3.0- 3.0	76064	LEC	1B	TTh	11:00 - 12:15 pm	EECH	00102	Watkins,S
		3.0- 3.0	76065	LEC	1C	TTh	02:00 - 03:15 pm	BCH	00315	Watkins,S
2201	<b>Electronic Devices Laboratory</b>	1.0- 1.0	75982	LAB	3A	M	01:00 - 02:50 pm	EECH	00203	Watkins,S
	Prerequisites: Elec Eng 2100, Elec Eng 2101, and Physics 2135 each with grade of "C" or better; passing the Elec Eng Advancement Exam I. Preceded or accompanied by Elec Eng 2200.	1.0- 1.0	76029	LAB	3B	M	03:00 - 04:50 pm	EECH	00203	Watkins,S
		1.0- 1.0	76066	LAB	3C	T	06:10 - 08:00 pm	EECH	00203	Watkins,S
		1.0- 1.0	76067	LAB	3D		<b>CANCELLED</b>			
		1.0- 1.0	76068	LAB	3E	W	06:10 - 08:00 pm	EECH	00203	Watkins,S
		1.0- 1.0	76069	LAB	3F	F	01:00 - 02:50 pm	EECH	00203	Watkins,S
		1.0- 1.0	76477	LAB	3G	F	03:00 - 04:50 pm	EECH	00203	Watkins,S
		1.0- 1.0	77513	LAB	3H		<b>CANCELLED</b>			
		1.0- 1.0	77514	LAB	3J		<b>CANCELLED</b>			
		1.0- 1.0	77679	LAB	3K	Th	08:00 - 09:50 am	EECH	00203	Watkins,S
2800	<b>Electrical Circuits</b>	3.0- 3.0	75023	LEC	1A	MWF	11:00 - 11:50 am	EECH	00G31	Kaur,A
	Prerequisites: Math 3304 or 3329; Physics 2135.	3.0- 3.0	75967	LEC	1B	MWF	01:00 - 01:50 pm	EMGT	00103	Kaur,A
3001	<b>Special Topics</b>	3.0- 3.0	78116	LEC	1A		<b>CANCELLED</b>			
	Prerequisites: A grade of "C" or better in Elec Eng 2120, Math 3108, and Math 3304; passing the Elec Eng Advancement Exam II. (Co-listed with COMP ENG 3001)									
3002	<b>Cooperative Engineering Training</b>	1.0- 1.0	75012	IND	6A	ARR	ARR	ARR	Ferdowski,M	
	Prerequisite: Consent of the Electrical and Computer Engineering Department required.									
3100	<b>Electronics I</b>	3.0- 3.0	76579	LEC	1A	MWF	09:00 - 09:50 am	LIB	00G14	Odun-Ayo,T
	Prerequisites: Elec Eng 2120, Elec Eng 2200, Elec Eng 2201, and Comp Eng 2210 each with a grade of "C" or better. Passing grade on Elec Eng Advancement Exam II and III. Elec Eng 3101 is a corequisite.	3.0- 3.0	75019	LEC	1B	MWF	01:00 - 01:50 pm	EECH	00101	Khilkevich,V
3101	<b>Electronics I Laboratory</b>	1.0- 1.0	77936	LAB	3A	M	01:00 - 02:50 pm	EECH	00204	Khilkevich,V
						<b>Communication Emphasized</b>				
		1.0- 1.0	75021	LAB	3B	M	03:00 - 04:50 pm	EECH	00204	Khilkevich,V
						<b>Communication Emphasized</b>				
		1.0- 1.0	77213	LAB	3C	M	06:10 - 08:00 pm	EECH	00204	Khilkevich,V
						<b>Communication Emphasized</b>				
		1.0- 1.0	75022	LAB	3D	T	12:30 - 02:20 pm	EECH	00204	Khilkevich,V
						<b>Communication Emphasized</b>				
		1.0- 1.0	76580	LAB	3E	T	02:30 - 04:20 pm	EECH	00204	Khilkevich,V
						<b>Communication Emphasized</b>				
		1.0- 1.0	77515	LAB	3F	T	06:10 - 08:00 pm	EECH	00204	Khilkevich,V
						<b>Communication Emphasized</b>				
		1.0- 1.0	76073	LAB	3G		<b>CANCELLED</b>			



CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
	1.0- 1.0	76074	LAB	3H	Th	06:00 - 07:50 pm	EECH	00204	Khilkevich,V
						<b>Communication Emphasized</b>			
3120 <b>Electronics II</b> Prerequisites: Elec Eng 3100 and Elec Eng 3101 each with a grade of "C" or better. Elec Eng 3121 is optional, but recommended.	3.0- 3.0	75020	LEC	1A	MWF	02:00 - 02:50 pm	EECH	00103	Pommerenke,D
3250 <b>Electronic And Photonic Devices</b> Prerequisite: Elec Eng 2200 and Elec Eng 2120 each with grade of "C" or better; passing the Elec Eng Advancement Exams II and III.	3.0- 3.0	76360	LEC	1B	MWF	11:00 - 11:50 am	EECH	00102	Kim,C
3320 <b>Control Systems</b> Prerequisites: Elec Eng 2120 and Math 3304 each with a grade of "C" or better; passing the Elec Eng Advancement Exam II.	3.0- 3.0	77214	LEC	1A	TTh	08:00 - 09:15 am	EECH	00102	Shrestha,B
	3.0- 3.0	77555	LEC	1B	TTh	02:00 - 03:15 pm	BCH	00121	Acar,L
3321 <b>Control Systems Laboratory</b> Prerequisites: ELEC ENG 2120 and MATH 3304 with a grade of "C" or better; passing the ELEC ENG Advancement Exam II; preceded or accompanied by ELEC ENG 3320.	1.0- 1.0	76878	LAB	3A	M	01:00 - 02:50 pm	EECH	00205	Modares,H
	1.0- 1.0	77216	LAB	3B	Th	02:30 - 04:20 pm	EECH	00205	Modares,H
	1.0- 1.0	77217	LAB	3C	F	01:00 - 02:50 pm	EECH	00205	Modares,H
	1.0- 1.0	76879	LAB	3D	T	05:00 - 06:50 pm	EECH	00205	Modares,H
	1.0- 1.0	77215	LAB	3E	M	03:00 - 04:50 pm	EECH	00205	Modares,H
	1.0- 1.0	77677	LAB	3F	F	05:00 - 06:50 pm	EECH	00205	Modares,H
	1.0- 1.0	78307	LAB	3G	M	07:00 - 08:50 pm	EECH	00205	Modares,H
3340 <b>Basic Programmable Logic Controllers</b> Prerequisites: Elec Eng 2120 and Comp Eng 2210 each with a grade of "C" or better.	3.0- 3.0		LEC	1A	TTh	08:00 - 09:15 am	BERTELS	00B12A	Erickson,K
	3.0- 3.0	75960	LAB	3A	T	12:00 - 01:50 pm	EECH	00G22	Erickson,K
	3.0- 3.0	76286	LAB	3B	T	02:30 - 04:20 pm	EECH	00G22	Erickson,K
	3.0- 3.0	75018	LAB	3C	W	01:00 - 02:50 pm	EECH	00G22	Erickson,K
	3.0- 3.0	76573	LAB	3D	Th	02:30 - 04:20 pm	EECH	00G22	Erickson,K
	3.0- 3.0	77375	LAB	3E	ARR	ARR	EECH	00G22	Erickson,K
	3.0- 3.0	78373	LAB	3F	F	01:00 - 02:50 pm	EECH	00G22	
						<b>Prerequisite</b>			
3410 <b>Digital Signal Processing</b> Prerequisites: ELEC ENG 2120 with a grade of "C" or better; passing the ELEC ENG Advancement Exam II.	3.0- 3.0	76070	LEC	1A	MWF	09:00 - 09:50 am	EECH	00G31	Swift,T
3411 <b>Discrete Linear Systems Laboratory</b>	1.0- 1.0	77938	LAB	3A	<b>CANCELLED</b>				
	1.0- 1.0	76071	LAB	3B	T	10:00 - 11:50 am	EE	00106	Swift,T
	1.0- 1.0	77939	LAB	3C	<b>CANCELLED</b>				
	1.0- 1.0	77940	LAB	3D	<b>CANCELLED</b>				
	1.0- 1.0	77941	LAB	3E	W	03:00 - 04:50 pm	EE	00106	Swift,T
	1.0- 1.0	77942	LAB	3F	<b>CANCELLED</b>				
	1.0- 1.0	77943	LAB	3G	<b>CANCELLED</b>				
	1.0- 1.0	76072	LAB	3H	<b>CANCELLED</b>				
	1.0- 1.0	77944	LAB	3J	<b>CANCELLED</b>				
3430 <b>Digital Communications I</b> Prerequisites: ELEC ENG 2120 with a grade of "C" or better; passing the ELEC ENG Advancement Exam II; accompanied by ELEC ENG 3431.	3.0- 3.0	77218	LEC	1A	MWF	11:00 - 11:50 am	EECH	00103	Kosbar,K
	3.0- 3.0	77719	LEC	1B	MWF	08:00 - 08:50 am	EECH	00103	Kosbar,K
3431 <b>Digital Communication Laboratory</b> Prerequisites: ELEC ENG 2120 and ELEC ENG 2101 with a grade of "C" or better; passing the ELEC ENG Advancement Exam II; preceded or accompanied by ELEC ENG 3430.	1.0- 1.0	77219	LAB	3A	M	05:00 - 06:50 pm	EECH	00205	Kosbar,K
	1.0- 1.0	77220	LAB	3B	W	05:00 - 06:50 pm	EECH	00205	Kosbar,K
	1.0- 1.0	77221	LAB	3C	Th	05:00 - 06:50 pm	EECH	00205	Kosbar,K
	1.0- 1.0	77678	LAB	3D	W	03:00 - 04:50 pm	EECH	00205	Kosbar,K
	1.0- 1.0	78308	LAB	3E	T	07:00 - 08:50 pm	EECH	00205	Kosbar,K
3500 <b>Electromechanics</b> Prerequisites: Physics 2135 with a grade of "C" or better; Elec Eng 2120 with a grade of "C" or better; passing grade on the Elec Eng Advancement Exam II.	3.0- 3.0	75013	LEC	1A	TTh	11:00 - 12:15 pm	EECH	00104	Kimball,J

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
3501 <b>Electromechanics Laboratory</b> Prerequisites: Elec Eng 2120 with a grade of "C" or better; passing grade on the Elec Eng Advancement Exam II. Preceded or accompanied by Elec Eng 3500.	1.0- 1.0	77516	LAB	3A	T	12:30 - 02:20 pm	EECH	00G12	Kimball,J
									<b>Communication Emphasized</b>
	1.0- 1.0	75015	LAB	3B	W	10:00 - 11:50 am	EECH	00G12	Kimball,J
									<b>Communication Emphasized</b>
	1.0- 1.0	75983	LAB	3C	W	01:00 - 02:50 pm	EECH	00G12	Kimball,J
									<b>Communication Emphasized</b>
	1.0- 1.0	77517	LAB	3D		<b>CANCELLED</b>			
3540 <b>Power System Design And Analysis</b> Prerequisites: Elec Eng 2120 with a grade of "C" or better; passing grade on the Elec Eng Advancement Exam II.	3.0- 3.0	75014	LEC	1A	MWF	08:00 - 08:50 am	EECH	00101	Bo,R
3541 <b>Power System Design And Analysis Laboratory</b> Prerequisites: Elec Eng 2120 with a grade of "C" or better; passing grade on the Elec Eng Advancement Exam II. Preceded or accompanied by Elec Eng 3540. Labs will also meet in EECH 106 when directed to by instructor.	1.0- 1.0	75016	LAB	3A	M	01:00 - 02:50 pm	EECH	00G12	Bo,R
									<b>Communication Emphasized</b>
	1.0- 1.0	76284	LAB	3B	T	02:30 - 04:20 pm	EECH	00G12	Bo,R
									<b>Communication Emphasized</b>
	1.0- 1.0	76285	LAB	3C	Th	12:30 - 02:20 pm	EECH	00G12	Bo,R
									<b>Communication Emphasized</b>
	1.0- 1.0	77945	LAB	3D		<b>CANCELLED</b>			
3600 <b>Electromagnetics</b> Prerequisites: Elec Eng 2120, Elec Eng 2101, Physics 2135, and Math 3304 each with a grade of "C" or better. Passing grade on Elec Eng Advancement Exam II.	4.0- 4.0	76128	LEC	1A	TTh	08:00 - 09:15 am	FUL	00227	Donnell,K
			LEC	1A	ARR	ARR	ARR		
4000 <b>Special Problems</b>	0.0- 6.0	75024	IND	6A	ARR	ARR	ARR		Acar,L
	0.0- 6.0	75025	IND	6B	ARR	ARR	ARR		Pommerenke,D
	0.0- 6.0	75026	IND	6C	ARR	ARR	ARR		Watkins,S
	0.0- 6.0	75027	IND	6D	ARR	ARR	ARR		Wu,C
	0.0- 6.0	75028	IND	6E	ARR	ARR	ARR		Zoughi,R
4096 <b>Electrical Engineering Senior Project I</b> Prerequisites: Comp Eng 2210, Econ 1100 or 1200, English 3560, at least 3 of the following: Elec Eng 3500, Elec Eng 3540, Elec Eng 3320, Elec Eng 3420, Elec Eng 3600, Elec Eng 3100.	1.0- 1.0		RSD	2A	M	12:00 - 12:50 pm	EMGT	00103	Woodley,R
	1.0- 1.0		RSD	2B	M	12:00 - 12:50 pm	EMGT	00103	Woodley,R
	1.0- 1.0	75046	LAB	3A	M	03:00 - 03:50 pm	TMH	00295	Woodley,R
	1.0- 1.0	75048	LAB	3B	W	03:00 - 03:50 pm	EECH	00102	Zawodniok,M
4097 <b>Electrical Engineering Senior Project II</b> Prerequisite: Elec Eng 4096 with a grade of "C" or better, Stat 3117, Sp&M S 1185.	3.0- 3.0	75049	LAB	3A	MW	03:00 - 04:50 pm	EECH	00G31	Ferguson,I
	3.0- 3.0	75050	LAB	3B	TTh	03:30 - 05:20 pm	EECH	00G31	Woodley,R
4099 <b>Undergraduate Research</b>	0.0- 6.0	75035	IND	6A	ARR	ARR	ARR		Acar,L
	0.0- 6.0	75036	IND	6B	ARR	ARR	ARR		Crow,M
	0.0- 6.0	75037	IND	6C	ARR	ARR	ARR		Donnell,K
	0.0- 6.0	75038	IND	6D	ARR	ARR	ARR		Drewniak,J
	0.0- 6.0	75039	IND	6E	ARR	ARR	ARR		Erickson,K
	0.0- 6.0	75040	IND	6F	ARR	ARR	ARR		Ferdowsi,M
	0.0- 6.0	75041	IND	6G	ARR	ARR	ARR		Kimball,J
	0.0- 6.0	75042	IND	6H	ARR	ARR	ARR		Kosbar,K
	0.0- 6.0	75043	IND	6J	ARR	ARR	ARR		Pommerenke,D
	0.0- 6.0	75044	IND	6K	ARR	ARR	ARR		Sedighsarvestani,S
	0.0- 6.0	75867	IND	6L	ARR	ARR	ARR		Shamsi,P
	0.0- 6.0	75881	IND	6M	ARR	ARR	ARR		Shrestha,B
	0.0- 6.0	75905	IND	6N	ARR	ARR	ARR		Watkins,S
	0.0- 6.0	76367	IND	6P	ARR	ARR	ARR		Wu,C
	0.0- 6.0	76441	IND	6Q	ARR	ARR	ARR		Zheng, Y
	0.0- 6.0	77300	IND	6R	ARR	ARR	ARR		Zoughi,R
4380 <b>Practicum in Automation Engineering</b> Prerequisites: Elec Eng 3340.	3.0- 3.0	78280	LAB	3A	ARR	ARR	ARR		Erickson,K
5000 <b>Special Problems</b>	0.0- 6.0	77871	IND	6A	ARR	ARR	ARR		Pommerenke,D
5001 <b>Special Topics</b> Prerequisites: Elec Eng 2200 or equivalent or graduate standing.	3.0- 3.0	78161	LEC	1A	Th	04:00 - 06:30 pm	EECH	00239	Ferguson,I
									LEDs for Illumination
5040 <b>Oral Examination</b> Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate office permission required.	0.0- 0.0	75090	IND	6A	ARR	ARR	ARR		

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
5099 <b>Special Research And Thesis</b> Prerequisite: Consent of instructor.	0.0-15.0	75062	IND	6A	ARR	ARR	ARR		Acar,L
	0.0-15.0	75063	IND	6B	ARR	ARR	ARR		Beetner,D
	0.0-15.0	75064	IND	6C	ARR	ARR	ARR		Cetinkaya,E
	0.0-15.0	75065	IND	6D	ARR	ARR	ARR		Crow,M
	0.0-15.0	75710	IND	6E	ARR	ARR	ARR		Donnell,K
	0.0-15.0	75066	IND	6F	ARR	ARR	ARR		Drewniak,J
	0.0-15.0	75067	IND	6G	ARR	ARR	ARR		Erickson,K
	0.0-15.0	75068	IND	6H	ARR	ARR	ARR		Fan,J
	0.0-15.0	75069	IND	6J	ARR	ARR	ARR		Ferdowsi,M
	0.0-15.0	75070	IND	6K	ARR	ARR	ARR		Huang,J
	0.0-15.0	75763	IND	6L	ARR	ARR	ARR		Hwang,C
	0.0-15.0	75071	IND	6M	ARR	ARR	ARR		Khilkevich,V
	0.0-15.0	75072	IND	6N	ARR	ARR	ARR		Kim,C
	0.0-15.0	75073	IND	6P	ARR	ARR	ARR		Kimball,J
	0.0-15.0	75075	IND	6Q	ARR	ARR	ARR		Kosbar,K
	0.0-15.0	75076	IND	6R	ARR	ARR	ARR		Modares,H
	0.0-15.0	75074	IND	6T	ARR	ARR	ARR		Pommerenke,D
	0.0-15.0	75077	IND	6U	ARR	ARR	ARR		Sarangapani,J
	0.0-15.0	75078	IND	6V	ARR	ARR	ARR		Sedighsarvestani,S
	0.0-15.0	75079	IND	6W	ARR	ARR	ARR		Shamsi,P
	0.0-15.0	75080	IND	6X	ARR	ARR	ARR		Stanley,R
	0.0-15.0	75081	IND	6Y	ARR	ARR	ARR		Watkins,S
	0.0-15.0	75712	IND	6Z	ARR	ARR	ARR		Wu,C
	0.0-15.0	75082	IND	6AA	ARR	ARR	ARR		Wunsch,D
	0.0-15.0	75083	IND	6BB	ARR	ARR	ARR		Zawodniok,M
	0.0-15.0	75084	IND	6CC	ARR	ARR	ARR		Zhang,Y
	0.0-15.0	75085	IND	6DD	ARR	ARR	ARR		Zheng,Y
	0.0-15.0	75086	IND	6EE	ARR	ARR	ARR		Zoughi,R
5140 <b>High-Frequency Amplifiers</b> Prerequisites: Elec Eng 3120, 3600.	3.0- 3.0	77946	LEC	1A	MWF	02:00 - 02:50 pm	BERTELS	00B12B	Donnell,K
5200 <b>Classical Optics</b> Prerequisites: Math 2222 and Physics 2135 or 2111. (Co-listed with Physics 4503)	3.0- 3.0	78163	LEC	1A	MWF	09:00 - 09:50 am	PHYS	00127	Yamilov,A
5310 <b>Computational Intelligence</b> Prerequisite: Graduate Standing. (Co-listed with Comp Eng 5310 and Sys Eng 5211)	3.0- 3.0	75839	LEC	1A	W	04:00 - 06:30 pm	TMH	00260	Corns,S
5340 <b>Advanced PLC</b> Prerequisites: Elec Eng 3340.	3.0- 3.0		LEC	1A	MW	09:00 - 09:50 am	BCH	00213	Erickson,K
	3.0- 3.0	77874	LAB	3A	M	01:00 - 02:50 pm	EECH	00G22	Erickson,K
	3.0- 3.0	77875	LAB	3B	W	03:00 - 04:50 pm	EECH	00G22	Erickson,K
	3.0- 3.0	77876	LAB	3C	Th	12:00 - 01:50 pm	EECH	00G22	Erickson,K
	3.0- 3.0	77877	LAB	3D	ARR	ARR	ARR		Erickson,K
5380 <b>Autonomous Mobile Robots</b> Prerequisites: Elec Eng 3320 or equivalent and Stat 3117 or equivalent.	3.0- 3.0	76551	LEC	1A	Th	04:00 - 06:30 pm	LIB	000G14	Dierks,T
5400 <b>Digital Signal Processing II</b> Prerequisites: Elec Eng 3410 or Elec Eng 3420.	3.0- 3.0	75032	LEC	1A	W	04:00 - 06:30 pm	EECH	00103	Zheng,Y
5430 <b>Wireless Networks</b> Prerequisites: Hardware competency, Elec Eng 3420 or Comp Eng 3150 and graduate standing. (Co-listed with Comp Eng 5430 and Sys Eng 5323)	3.0- 3.0		LEC	1A	MW	08:00 - 08:50 am	CS	00209	Zawodniok,M
	3.0- 3.0	77504	LAB	3A	F	08:00 - 08:50 am	CS	00209	Zawodniok,M
5440 <b>Stochastic Signal Analysis I</b> Prerequisites: Math 3304 and Elec Eng 2120.	3.0- 3.0	77949	LEC	1A	MWF	10:00 - 10:50 am	EECH	00111	Zhang,J
5510 <b>Electric-Drive Vehicles</b> Prerequisite: Senior standing and Physics 2135.	3.0- 3.0	76581	LEC	1A	TTh	09:30 - 10:45 am	EECH	00111	Ferdowsi,M
									<b>Field Trip Required</b>
5520 <b>Power Electronics</b> Prerequisite: Elec Eng 3100.	3.0- 3.0	76478	LEC	1A	TTh	12:30 - 01:45 pm	TMH	00260	Ferdowsi,M
5540 <b>Power Systems Engineering</b> Prerequisite: Elec Eng 3540.	3.0- 3.0	75942	LEC	1A	MWF	02:00 - 02:50 pm	EECH	00239	Crow,M

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
5600 <b>Interference Control in Electronic Systems</b> Prerequisites: Elec Eng 3400 and 3600.	3.0- 3.0	75033	LEC	1A	MWF	08:00 - 08:50 am	FUL	00107A	Beetner,D
5640 <b>Antennas and Propagation</b> Prerequisite: Elec Eng 3600.	3.0- 3.0	75034	LEC	1A	TTh	09:30 - 10:45 am	EECH	00104	Zoughi,R
5660 <b>Microwave Principles For Mixed-Signal Design</b> Prerequisite: Elec Eng 3600.	3.0- 3.0	77950	LEC	1A	MWF	01:00 - 01:50 pm	EECH	00103	Drewniak,J
6000 <b>Special Problems</b>	0.0- 6.0	75051	IND	6A	ARR	ARR	ARR		Crow,M
	0.0- 6.0	75052	IND	6B	ARR	ARR	ARR		Donnell,K
	0.0- 6.0	75766	IND	6C	ARR	ARR	ARR		Drewniak,J
	0.0- 6.0	75053	IND	6D	ARR	ARR	ARR		Fan,J
	0.0- 6.0	75054	IND	6E	ARR	ARR	ARR		Ferdowski,M
	0.0- 6.0	75057	IND	6F	ARR	ARR	ARR		Sarangapani,J
	0.0- 6.0	75055	IND	6G	ARR	ARR	ARR		Shamsi,P
	0.0- 6.0	75056	IND	6H	ARR	ARR	ARR		Stanley,R
	0.0- 6.0	75058	IND	6J	ARR	ARR	ARR		Watkins,S
	0.0- 6.0	75059	IND	6K	ARR	ARR	ARR		Wu,C
	0.0- 6.0	75060	IND	6L	ARR	ARR	ARR		Zoughi,R
6040 <b>Oral Examination</b>	0.0- 0.0	76774	IND	6A	ARR	ARR	ARR		
6050 <b>Continuous Registration</b> Doctoral students only. Graduate office permission required.	1.0- 1.0	75091	IND	6A	ARR	ARR	ARR		Kim,C
6085 <b>Internship</b> DE students only.	0.0-15.0	75089	IND	6A	ARR	ARR	ARR		
6099 <b>Special Research And Thesis</b> Prerequisite: Consent of instructor.	0.0-15.0	76745	IND	6A	ARR	ARR	ARR		Acar,L
	0.0-15.0	76746	IND	6B	ARR	ARR	ARR		Beetner,D
	0.0-15.0	76747	IND	6C	ARR	ARR	ARR		Cetinkaya,E
	0.0-15.0	76748	IND	6D	ARR	ARR	ARR		Crow,M
	0.0-15.0	76749	IND	6E	ARR	ARR	ARR		Donnell,K
	0.0-15.0	76750	IND	6F	ARR	ARR	ARR		Drewniak,J
	0.0-15.0	76751	IND	6G	ARR	ARR	ARR		Erickson,K
	0.0-15.0	76752	IND	6H	ARR	ARR	ARR		Fan,J
	0.0-15.0	76753	IND	6J	ARR	ARR	ARR		Ferdowski,M
	0.0-15.0	76754	IND	6K	ARR	ARR	ARR		Ferguson,I
	0.0-15.0	76755	IND	6L	ARR	ARR	ARR		Huang,J
	0.0-15.0	76756	IND	6M	ARR	ARR	ARR		Hwang,C
	0.0-15.0	76757	IND	6N	ARR	ARR	ARR		Khilkevich,V
	0.0-15.0	76758	IND	6P	ARR	ARR	ARR		Kim,C
	0.0-15.0	76759	IND	6Q	ARR	ARR	ARR		Kimball,J
	0.0-15.0	76760	IND	6R	ARR	ARR	ARR		Kosbar,K
	0.0-15.0	76761	IND	6T	ARR	ARR	ARR		Modares,H
	0.0-15.0	76762	IND	6U	ARR	ARR	ARR		Pommerenke,D
	0.0-15.0	76763	IND	6V	ARR	ARR	ARR		Sarangapani,J
	0.0-15.0	76764	IND	6W	ARR	ARR	ARR		Sedighsarvestani,S
	0.0-15.0	76765	IND	6X	ARR	ARR	ARR		Shamsi,P
	0.0-15.0	76766	IND	6Y	ARR	ARR	ARR		Stanley,R
	0.0-15.0	76767	IND	6Z	ARR	ARR	ARR		Watkins,S
	0.0-15.0	76768	IND	6AA	ARR	ARR	ARR		Wu,C
	0.0-15.0	76769	IND	6BB	ARR	ARR	ARR		Wunsch,D
	0.0-15.0	76770	IND	6CC	ARR	ARR	ARR		Zawodniok,M
	0.0-15.0	76771	IND	6DD	ARR	ARR	ARR		Zheng,Y
	0.0-15.0	76772	IND	6EE	ARR	ARR	ARR		Zoughi,R
6200 <b>Electromagnetic Optics</b> Prerequisite: Elec Eng 3600 or Physics 4211.	3.0- 3.0	78243	LEC	1A	MWF	09:00 - 09:50 am	EECH	00112	Huang,J
6260 <b>Integrated Microsystems Engineering</b> Prerequisite: Graduate standing.	3.0- 3.0		LEC	1A	MW	03:00 - 03:50 pm	EECH	00112	Kim,C
	3.0- 3.0	77953	LAB	3A	F	03:00 - 03:50 pm	ARR		Kim,C
6300 <b>Linear Control Systems</b> Prerequisite: Elec Eng 3320.	3.0- 3.0	75061	LEC	1A	TTh	09:30 - 10:45 am	BERTELS	00B12B	Acar,L
6320 <b>Nonlinear Control Systems</b> Prerequisite: Elec Eng 6300.	3.0- 3.0	77954	LEC	1A	TTh	11:00 - 12:15 pm	BCH	00317	Sarangapani,J
6330 <b>Robust Control Systems</b> Prerequisite: Elec Eng 6300.	3.0- 3.0	77955	LEC	1A	<b>CANCELLED</b>				

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
6410 <b>Information Theory And Coding</b> Prerequisites: Elec Eng 5420 or Elec Eng 5440 or Stat 5643.	3.0- 3.0	77957	LEC	1A	TTh	02:00 - 03:15 pm	IDE	00105	Zheng,Y
6500 <b>Advanced Theory Of Electric Machines</b> Prerequisite: Elec Eng 3500.	3.0- 3.0	77958	LEC	1A	MWF	12:00 - 12:50 pm	EECH	00239	Shamsi,P
6560 <b>Power System Protection</b> Prerequisite: Elec Eng 5560 and 5540	3.0- 3.0	77959	LEC	1A	TTh	11:00 - 12:15 pm	TMH	00260	Nauert,P
6630 <b>Computational Electromagnetics</b> Prerequisite: Elec Eng 3600.	3.0- 3.0	77964	LEC	1A	TTh	11:00 - 12:15 pm	EECH	00239	Fan,J

## Engineering Management

1100 <b>Practical Concepts for Technical Managers</b>	1.0- 1.0	76018	LEC	1A	ARR	ARR	ARR		Grasman,K
	1.0- 1.0	76019	LEC	1B	ARR	ARR	ARR		Grasman,K
1210 <b>Economic Analysis of Engineering Projects</b> Prerequisites: Math 1214.	2.0- 2.0	76104	LEC	1A	ARR	ARR	ARR		Grasman,K
									No required classroom meetings other than common exams scheduled for September 27th and November 1st from 6:00-8:00pm. <b>See 'Notes' for Evening Exams</b>
	2.0- 2.0	76001	LEC	1B	TTh	01:00 - 01:50 pm	ARR		Grasman,K
									Common exams scheduled for September 27th and November 1st from 6:00-8:00pm. <b>See 'Notes' for Evening Exams</b>
2002 <b>Cooperative Engineering Training</b>	0.0- 6.0	75092	IND	6A	ARR	ARR	ARR		Raper,S
2110 <b>Managing Engineering And Technology</b> Prerequisite: A grade of "C" or better is required in this course to meet Engineering Management degree requirements.	3.0- 3.0	76341	LEC	1A	TTh	09:30 - 10:45 am	EMGT	00103	Canfield,C
2211 <b>Engineering Accounting and Finance</b> Prerequisite: Eng Mgt 1210, or understanding of engineering economic principles.	3.0- 3.0	76079	LEC	1A	MWF	02:00 - 02:50 pm	IDE	00206	Hodges,S
2310 <b>Introduction to System Engineering</b> Prerequisites: Math 1208 or Math 1214.	3.0- 3.0	76471	LEC	1A	TTh	08:00 - 09:15 am	EMGT	00102	Corns,S
3310 <b>Operations and Production Management</b> Prerequisites: Eng Mgt 2110.	3.0- 3.0	75096	LEC	1A	TTh	02:00 - 03:15 pm	BCH	00120	Sun,Z
3320 <b>Introduction to Project Management</b> Prerequisites: Junior or above standing.	3.0- 3.0	75920	LEC	1A	TTh	11:00 - 12:15 pm	H-SS	000G5	Schuman,J
3510 <b>Marketing Management</b> Prerequisites: Preceded or accompanied by Eng Mgt 2110.	3.0- 3.0	75094	LEC	1A	MWF	01:00 - 01:50 pm	TMH	00295	Hodges,S
4000 <b>Special Problems</b>	0.0- 6.0	76541	IND	6A	ARR	ARR	ARR		Raper,S
4099 <b>Undergraduate Research</b>	0.0- 6.0	75103	IND	6A	ARR	ARR	ARR		Raper,S
4110 <b>General Management-Design and Integration</b> Prerequisites: Eng Mgt 2210, 2211; preceded or accompanied by Eng Mgt 3310, 3320, 4710, and senior standing.	3.0- 3.0	75095	LEC	1A	TTh	12:30 - 01:45 pm	EECH	00102	Raper,S
4330 <b>Human Factors</b> Prerequisite: Psych 1101. (Co-listed with Psych 4710)	3.0- 3.0	75098	LEC	1A	TTh	09:30 - 10:45 am	TMH	00295	Murray,S
4710 <b>Quality</b> Prerequisites: Stat 3115 or Stat 3117.	3.0- 3.0	76020	LEC	1A	TTh	02:00 - 03:15 pm	EMGT	00102	Cudney,E
4907 <b>Engineering Management Senior Design</b> Prerequisites: Preceded or accompanied by Eng Mgt 4110.	3.0- 3.0	76111	LEC	1A	MWF	12:00 - 12:50 pm	EMGT	00102	Raper,S
5001 <b>Special Topics</b> Prerequisite: Senior or graduate standing. (Co-listed with Econ 5001)	3.0- 3.0	78210	LEC	1A	T	04:00 - 06:30 pm	IDE	00202	Moore,C
5110 <b>Managerial Decision Making</b> Prerequisite: Senior or graduate standing.	3.0- 3.0	75099	LEC	1A	W	07:00 - 09:30 pm	TMH	00260	Spurlock,D
5111 <b>Management for Engineers and Scientists</b> Prerequisite: Graduate standing.	3.0- 3.0	75908	LEC	1A	W	04:00 - 06:30 pm	BCH	00121	Spurlock,D

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
5210 <b>Economic Decision Analysis</b> Prerequisite: Graduate students without previous course in engineering economy because of partial overlap.	3.0- 3.0	75097	LEC	1A	W	04:00 - 06:30 pm	EECH	00239	Schuman,J
5316 <b>Safety Engineering Management</b> Prerequisite: Senior or graduate standing.	3.0- 3.0	75846	LEC	1A	Th	07:00 - 09:30 pm	TMH	00260	Schmidt,M
5320 <b>Project Management</b> Prerequisite: Graduate Standing.	3.0- 3.0	75101	LEC	1A	T	04:00 - 06:30 pm	EECH	00239	Berry,R
5330 <b>Advanced Human Factors</b> (Co-listed with PSYCH 5710)	3.0- 3.0	76668	LEC	1A	T	07:00 - 09:30 pm	H-SS	00105	Baker,D
5410 <b>Industrial System Simulation</b> Prerequisite: Stat 3115 or Stat 3117.	3.0- 3.0	76083	LEC	1A	TTh	03:30 - 04:45 pm	MCNutt	234	Gosavi,A
5412 <b>Operations Management Science</b> Prerequisites: Graduate standing.	3.0- 3.0	75770	LEC	1A	M	07:00 - 09:30 pm	CS	00209	Gosavi,A
5414 <b>Introduction To Operations Research</b> Prerequisite: Stat 3115 or Stat 3117.	3.0- 3.0	75102	LEC	1A	MWF	10:00 - 10:50 am	FUL	00220	
5511 <b>Technical Entrepreneurship</b> Prerequisite: Senior or graduate standing.	3.0- 3.0	75100	LEC	1A	T	07:00 - 09:30 pm	EECH	00239	Bade,J
5514 <b>Patent Law</b> Prerequisite: Senior or graduate standing. (Co-listed with Chem Eng 4300)	3.0- 3.0	75845	LEC	1A	T	07:00 - 09:30 pm	BCH	00213	Canis,R
5710 <b>Six Sigma</b> Prerequisite: Graduate standing.	3.0- 3.0	75764	LEC	1A	TTh	12:30 - 01:45 pm	EECH	00239	Cudney,E
5711 <b>Total Quality Management</b> Prerequisite: Senior or graduate standing.	3.0- 3.0	75861	LEC	1A	W	07:00 - 09:30 pm	LIB	000G14	Bade,J
5713 <b>Management And Methods In Reliability</b> Prerequisite: Stat 3115, 3117, or 5643.	3.0- 3.0	78061	LEC	1A	<b>CANCELLED</b>				
6001 <b>Special Topics</b> Prerequisites: An undergraduate calculus based statistics course and one of Eng Mgt 6212, Sys Eng 6612, Eng Mgt 6213, or Sys Eng 6613.	3.0- 3.0	77901	LEC	1A	T	04:00 - 06:30 pm	BERTELS	00B12A	Qin,R
6040 <b>Oral Examination</b> Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate office permission required.	0.0- 0.0	75107	IND	6A	ARR	ARR	ARR		Long,S
6050 <b>Continuous Registration</b> Doctoral students only. Graduate office permission required.	1.0- 1.0	75108	IND	6A	ARR	ARR	ARR		Long,S
6099 <b>Research</b>	0.0-15.0	76682	IND	6A	ARR	ARR	ARR		Corns,S
	0.0-15.0	76684	IND	6B	ARR	ARR	ARR		Cudney,E
	0.0-15.0	76685	IND	6C	ARR	ARR	ARR		Dagli,C
	0.0-15.0	76686	IND	6D	ARR	ARR	ARR		Enke,D
	0.0-15.0	76687	IND	6E	ARR	ARR	ARR		Gosavi,A
	0.0-15.0	76688	IND	6F	<b>CANCELLED</b>				
	0.0-15.0	76689	IND	6G	<b>CANCELLED</b>				
	0.0-15.0	76690	IND	6H	<b>CANCELLED</b>				
	0.0-15.0	76691	IND	6J	ARR	ARR	ARR		Long,S
	0.0-15.0	76692	IND	6K	ARR	ARR	ARR		Murray,S
	0.0-15.0	76693	IND	6L	ARR	ARR	ARR		Qin,R
	0.0-15.0	76694	IND	6M	ARR	ARR	ARR		Raper,S
	0.0-15.0	77733	IND	6N	ARR	ARR	ARR		Sun,Z
6112 <b>Leadership for Engineers</b> Prerequisite: Eng Mgt 5110 or Psych 4602. (Co-listed with Psych 6611)	3.0- 3.0	76060	LEC	1A	ARR	ARR	ARR		Daughton,W
6211 <b>Advanced Financial Management</b> Prerequisite: Eng Mgt 1210 or 5210.	3.0- 3.0	76293	LEC	1A	Th	04:00 - 06:30 pm	TMH	00260	Qin,R
6212 <b>Investment</b> Prerequisite: Eng Mgt 1210 or 308. (Co-listed with Sys Eng 6612)	3.0- 3.0	75106	LEC	1A	W	04:00 - 06:30 pm	CS	00209	Enke,D

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
6213 <b>Financial Engineering</b> Prerequisites: Eng Mgt 1210 or 5210. (Co-listed with Sys Eng 6613)	3.0- 3.0	75871	LEC	1A	M	04:00 - 06:30 pm	LIB	000G14	Enke,D
6322 <b>Case Studies in Project Management</b> Prerequisite: Eng Mgt 5320 or equivalent.	3.0- 3.0	75953	LEC	1A	W	07:00 - 09:30 pm	EECH	00239	Hodges,S
6410 <b>Markov Decision Processes</b> Prerequisite: Graduate standing in background of probability or statistics. (Co-listed with Comp Eng 6310, Mech Eng 6447, Aero Eng 6447 and Comp Sci 6202)	3.0- 3.0	76098	LEC	1A	M	04:00 - 06:30 pm	TMH	00260	Wunsch,D
6412 <b>Mathematical Programming</b> Prerequisites: Stat 3113 or equivalent and (Eng Mgt 5414 or Math 3103 or Math 3108) (Co-listed with Math 6665)	3.0- 3.0	77902	LEC	1A	<b>CANCELLED</b>				
6611 <b>Lean Systems</b> Prerequisite: Graduate standing.	3.0- 3.0	75105	LEC	1A	M	07:00 - 09:30 pm	BERTELS	00B12B	Lin,H

## English

1120 <b>Exposition And Argumentation</b>	3.0- 3.0	75109	LEC	1A	MWF	08:00 - 08:50 am	H-SS	00203	Arthur,R
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75111	LEC	1C	MWF	09:00 - 09:50 am	EMGT	00106	Goldberg,M
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75112	LEC	1D	MWF	09:00 - 09:50 am	H-SS	00204	Arthur,R
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75113	LEC	1E	MWF	10:00 - 10:50 am	EMGT	00106	Goldberg,M
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75114	LEC	1F	MWF	10:00 - 10:50 am	MCNT	00245	Dereberry,M
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75115	LEC	1G	MWF	11:00 - 11:50 am	EMGT	00102	Goldberg,M
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75116	LEC	1H	MWF	11:00 - 11:50 am	CS	00206	
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75117	LEC	1J	MWF	01:00 - 01:50 pm	TMH	00251	Dereberry,M
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75740	LEC	1K	MWF	01:00 - 01:50 pm	CS	00204	Gilstrap,M
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	76140	LEC	1L	MWF	02:00 - 02:50 pm	PHYS	00128	
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	76448	LEC	1M	MWF	02:00 - 02:50 pm	H-SS	000G8	Gilstrap,M
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	76133	LEC	1N	MWF	03:00 - 03:50 pm	PHYS	00128	Arthur,R
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75118	LEC	1P	TTh	08:00 - 09:15 am	H-SS	00202	
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75119	LEC	1Q	TTh	09:30 - 10:45 am	H-SS	00203	Young,B
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75120	LEC	1R	TTh	09:30 - 10:45 am	H-SS	00103	Tate,K
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75121	LEC	1T	TTh	11:00 - 12:15 pm	H-SS	00104	
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75966	LEC	1U	TTh	12:30 - 01:45 pm	H-SS	00201	Wise,R
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	75961	LEC	1V	TTh	02:00 - 03:15 pm	TMH	00249	Hercula,S
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	76141	LEC	1W	TTh	02:00 - 03:15 pm	H-SS	00203	Wise,R
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	76244	LEC	1X	TTh	03:30 - 04:45 pm	H-SS	00204	Wise,R
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	77076	LEC	1Y	<b>CANCELLED</b>				
	3.0- 3.0	77077	LEC	1Z	MWF	03:00 - 03:50 pm	H-SS	00101	
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	77078	LEC	1BB	MWF	12:00 - 12:50 pm	H-SS	00203	Ekstam,F
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	77079	LEC	1CC	TTh	09:30 - 10:45 am	NOR	00208	Quinn,J
			<b>MOTR ENGL 100: Composition I</b>						

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
	3.0- 3.0	77080	LEC	1DD	TTh	03:30 - 04:45 pm	H-SS	000G8	Young,B
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	77097	LEC	1EE	TTh	12:30 - 01:45 pm	H-SS	00203	Young,B
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	77297	LEC	1FF	TTh	05:00 - 06:15 pm	H-SS	000G7	Tran,T
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	77688	LEC	1GG	ARR	ARR	ARR		Chan,H
			<b>MOTR ENGL 100: Composition I</b>						
	3.0- 3.0	77694	LEC	1HH	ARR	ARR	ARR		Chan,H
			<b>MOTR ENGL 100: Composition I</b>						
1160 <b>Writing And Research</b> Prerequisite: English 1120.	3.0- 3.0	75122	LEC	1A	MWF	02:00 - 02:50 pm	H-SS	00102	Larson,J
			<b>MOTR ENGL 200: Composition II</b>						
	3.0- 3.0	76439	LEC	1B	MWF	03:00 - 03:50 pm	H-SS	00102	Larson,J
			<b>MOTR ENGL 200: Composition II</b>						
	3.0- 3.0	76241	LEC	1C	MWF	11:00 - 11:50 am	H-SS	00102	Dereberry,M
			<b>MOTR ENGL 200: Composition II</b>						
	3.0- 3.0	76440	LEC	1D	MWF	01:00 - 01:50 pm	CSF	00114	Larson,J
			<b>MOTR ENGL 200: Composition II</b>						
	3.0- 3.0	75124	LEC	1E	TTh	11:00 - 12:15 pm	CS	00206	Schneider,R
			<b>MOTR ENGL 200: Composition II</b>						
	3.0- 3.0	75123	LEC	1F	TTh	09:30 - 10:45 am	H-SS	00202	Schneider,R
			<b>MOTR ENGL 200: Composition II</b>						
	3.0- 3.0	76195	LEC	1G	TTh	02:00 - 03:15 pm	CS	00206	Schneider,R
			<b>MOTR ENGL 200: Composition II</b>						
1170 <b>Creative Writing</b> Prerequisite: English 1120.	3.0- 3.0	77427	LEC	1A	MWF	02:00 - 02:50 pm	H-SS	000G7	Goldberg,M
1211 <b>British Literature I: The Beginnings To 1800</b>	3.0- 3.0	75125	LEC	1A	TTh	11:00 - 12:15 pm	EMGT	00201	Bryan,E
1212 <b>British Literature II 1800 To Present</b>	3.0- 3.0	75126	LEC	1A	TTh	02:00 - 03:15 pm	EMGT	00201	Swenson,K
1221 <b>American Literature: 1600 To 1865</b>	3.0- 3.0	75127	LEC	1A	MWF	10:00 - 10:50 am	CS	00207	Dolan,K
1222 <b>American Literature: 1865 To Present</b>	3.0- 3.0	75931	LEC	1B	TTh	12:30 - 01:45 pm	CS	00216	Tate,K
	3.0- 3.0	77707	LEC	1C	TTh	08:00 - 09:15 am	H-SS	000G8	Brown,T
			<b>MOTR LITR 101: American Literature</b>						
1231 <b>World Literature I: From The Beginnings To The Renaissance</b>	3.0- 3.0	77999	LEC	1A	TTh	12:30 - 01:45 pm	EMGT	00201	Cotterill,A
			<b>MOTR LITR 200: World Literature</b>						
1600 <b>Introduction to Technical Communication</b> Prerequisite: English 1120. (Co-listed with TCH COM 1600)	3.0- 3.0	75678	LEC	1A	MWF	09:00 - 09:50 am	CS	00206	
	3.0- 3.0	76362	LEC	1B	MWF	10:00 - 10:50 am	CSF	00114	
	3.0- 3.0	78358	LEC	1C	MWF	11:00 - 11:50 am	MCNutt	234	
			<b>Prerequisite</b>						
2000 <b>Special Problems And Readings</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75133	IND	6A	ARR	ARR	ARR		Swenson,K
2002 <b>Critical Approaches To Literature</b>	3.0- 3.0	75134	LEC	1A	MWF	01:00 - 01:50 pm	H-SS	000G8	Dolan,K
2230 <b>Literature And Film</b> Prerequisite: English 1120.	3.0- 3.0	76283	LEC	1A	TTh	09:30 - 10:45 am	H-SS	00201	Brown,T
2243 <b>Science Fiction And Fantasy Literature</b> Prerequisites: English 1120 and a semester of college literature.	3.0- 3.0	76055	LEC	1A	MW	09:00 - 09:50 am	H-SS	00201	Reardon,D
			LEC	1A	ARR	ARR	ARR		
2410 <b>Theory Of Written Communication</b> Prerequisites: English 1120 and a semester of college literature.	3.0- 3.0	78063	LEC	1A	MWF	09:00 - 09:50 am	H-SS	000G8	Larson,J
2540 <b>Layout And Design</b> Prerequisite: English 1600 or TCH COM 1600. (Co-listed with TCH COM 2540)	3.0- 3.0	76611	LEC	1A	TTh	11:00 - 12:15 pm	BCH	00313	Kerwin,R
2560 <b>Technical Marketing Communication</b> Prerequisites: English 1600 or Tch Com 1600 or English 1160. (Co-listed with TCH COM 2560)	3.0- 3.0	76527	LEC	1A	ARR	ARR	ARR		Wright,M
	3.0- 3.0	76516	LEC	1B	MWF	09:00 - 09:50 am	CSF	00114	Roberson,E
3000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75135	IND	6A	ARR	ARR	ARR		Cotterill,A
	0.0- 6.0	77134	IND	6B	ARR	ARR	ARR		Swenson,K



CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
3001 <b>Special Topics</b>	3.0- 3.0	78002	LEC	1A	ARR	ARR	ARR		Malone,E
									Adv Bus & Tch Writing: Publish Class meets the first 8 weeks of the semester. <b>See 'Notes' for Class Schedule</b>
3170 <b>Teaching And Supervising Reading and Writing</b>	3.0- 3.0	76508	LEC	1A	MWF	11:00 - 11:50 am	H-SS	00204	Reardon,D
									Prerequisite: 6 hours of college level writing courses.
3214 <b>The Plays Of William Shakespeare</b>	3.0- 3.0	75136	LEC	1A	TTh	09:30 - 10:45 am	H-SS	00204	Cotterill,A
									Prerequisites: English 1120 and a semester of college literature.
3215 <b>The Restoration &amp; Eighteenth Century</b>	3.0- 3.0	78000	LEC	1A	MWF	10:00 - 10:50 am	H-SS	00201	Schneider,R
									Prerequisites: English 1120 and a semester of college literature.
3301 <b>A Linguistic Study Of Modern English</b>	3.0- 3.0	76132	LEC	1A	TTh	03:30 - 04:45 pm	TMH	00250	Hercula,S
									Prerequisite: English 1120.
3550 <b>Writing for Social Media</b>	3.0- 3.0	78302	LEC	1A	ARR	ARR	ARR		Malone,E
									Prerequisites: One semester of college composition or technical writing. (Co-listed with TCH COM 3550)
3560 <b>Technical Writing</b>	3.0- 3.0	75129	LEC	1A	MWF	09:00 - 09:50 am	BCH	00313	
	3.0- 3.0	75131	LEC	1B	MWF	10:00 - 10:50 am	CS	00206	Roberson,E
	3.0- 3.0	75132	LEC	1C	MWF	02:00 - 02:50 pm	CSF	00114	
	3.0- 3.0	75130	LEC	1D	TTh	09:30 - 10:45 am	CSF	00114	
	3.0- 3.0	77275	LEC	1E	ARR	ARR	ARR		
									Class meets first 8 weeks of the semester. <b>See 'Notes' for Class Schedule</b>
									<b>UM Shared Course-Secondary</b>
	3.0- 3.0	78064	LEC	1F	MWF	11:00 - 11:50 am	CSF	00114	
4290 <b>Texts And Contexts</b>	3.0- 3.0	76860	LEC	1A	T	06:00 - 09:00 pm	H-SS	00101	Bryan,E
									Prerequisites: English 1120 and a semester of college literature; junior standing.
									<b>Communication Intensive</b> <b>UM Shared Course-Primary</b>
5571 <b>Advanced Writing For Science &amp; Engineering</b>	3.0- 3.0	78065	LEC	1A	T	05:00 - 08:00 pm	TMH	00250	Hercula,S
									Prerequisites: English 3560 and 2560, or graduate standing.

## Enterprise Resource Planning

2110 <b>Introduction to Enterprise Resource Planning</b>	3.0- 3.0	75880	LEC	1A	MWF	11:00 - 11:50 am	TMH	00251	Chiu,Y
									Prerequisite: IS&T 1750.

## Enterprise Resource Planning

4220 <b>Introduction to Enterprise Decision Dashboard Prototyping</b>	3.0- 3.0	77303	LEC	1A	MWF	09:00 - 09:50 am	FUL	00107A	Lea,B
									Prerequisites: (ERP 2110 or ERP 5110) and one of ERP 5410, ERP 6444, or IS&T 6444.

## Enterprise Resource Planning

4610 <b>Customer Relationship Management in ERP Environment</b>	3.0- 3.0	76609	LEC	1A	T	04:00 - 06:30 pm	FUL	00107A	Claybaugh,C
									Prerequisite: ERP 2110 or preceded or accompanied by ERP 5110.
5110 <b>Enterprise Resource Planning Systems Design and Implementation</b>	3.0- 3.0	75738	LEC	1A	TTh	09:30 - 10:45 am	FUL	00107A	Claybaugh,C
									Prerequisites: Preceded or accompanied by ERP 2110; or Graduate Standing and computer programming knowledge.
5310 <b>Supply Chain Management Systems in an ERP Environment</b>	3.0- 3.0	76372	LEC	1A	M	04:00 - 06:30 pm	FUL	00107A	Lea,B
									Prerequisite: ERP 2110 or preceded or accompanied by ERP 5110.

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
5410 <b>Use of Business Intelligence</b> Prerequisites: IS&T 3423 or equivalent; ERP 2110 or preceded or accompanied by ERP 5110.	3.0- 3.0	76490	LEC	1A	TTh	11:00 - 12:15 pm	FUL	00107A	Yu,W
<b>Enterprise Resource Planning</b>									
6220 <b>Data Modeling &amp; Visualization</b> <b>Prototyping for Enterprise Decision</b> <b>Dashboards</b> Prerequisites: ERP 5110 and one of ERP 5410, ERP 6444 or IS&T 6444.	3.0- 3.0	77157	LEC	1A	MWF	09:00 - 09:50 am	FUL	00107A	Lea,B
<b>Enterprise Resource Planning</b>									
6610 <b>Advanced Customer Relationship</b> <b>Management in ERP Environment</b> Prerequisite: ERP 2110 or preceded or accompanied by ERP 5110.	3.0- 3.0	76586	LEC	1A	T	04:00 - 06:30 pm	FUL	00107A	Claybaugh,C
<b>Environmental Engineering</b>									
2601 <b>Fundamentals Of Environmental</b> <b>Engineering and Science</b> Prerequisites: Chem 1310, Chem 1301, or Chem 1351; Math 1214, Math 1212, or Math 1208. (Co-listed with Civ Eng 2601)	3.0- 3.0		LEC	1A	MW	08:00 - 08:50 am	BCH	00209	
	3.0- 3.0		LEC	1B	MW	11:00 - 11:50 am	BCH	00209	Wang,J
	3.0- 3.0	76057	LAB	3A1	M	01:00 - 03:50 pm	BCH	00209	
	3.0- 3.0	76184	LAB	3A2	T	01:00 - 03:50 pm	BCH	00209	
	3.0- 3.0	76433	LAB	3B1	W	01:00 - 03:50 pm	BCH	00209	Wang,J
	3.0- 3.0	76434	LAB	3B2	Th	01:00 - 03:50 pm	BCH	00209	Wang,J
3615 <b>Water And Wastewater Engineering</b> Prerequisites: Civ Eng 2601 and at least junior standing. (Co-listed with Civ Eng 3615)	3.0- 3.0	75924	LEC	1A	TTh	11:00 - 12:15 pm	BCH	00209	Wang,J
4010 <b>Senior Seminar: Engineering In A Global</b> <b>Society</b> Prerequisite: Senior standing. (Co-listed with Civ Eng and Arch Eng 4010)	1.0- 1.0	74887	RSD	2A	W	12:00 - 12:50 pm	BCH	00120	Burken,J
4097 <b>Senior Design Project</b> Prerequisite: Civ Eng 4448 or Arch Eng 4448. (Co-listed with Arch Eng 4097 and Civ Eng 4097)	3.0- 3.0	75925	LEC	1A	M	01:00 - 03:50 pm	BCH	00123	
			LEC	1A	M	01:00 - 03:50 pm	BCH	00120	
			LEC	1A	M	01:00 - 03:50 pm	BCH	00122	Showalter,W
4099 <b>Undergraduate Research</b>	0.0- 6.0	76149	IND	6A	ARR	ARR	ARR		Burken,J
	0.0- 6.0	76185	IND	6B	ARR	ARR	ARR		Fitch,M
	0.0- 6.0	76186	IND	6C	ARR	ARR	ARR		Oerther,D
	0.0- 6.0	76187	IND	6D	ARR	ARR	ARR		Wang,J
4609 <b>Research in Environmental Engineering</b> Prerequisite: Senior standing.	1.0- 1.0	78248	LEC	1A	W	03:30 - 04:20 pm	BCH	00216	Burken,J
5605 <b>Environmental Systems Modeling</b> Prerequisites: Env Eng/Civ Eng 2601, Env Eng/Civ Eng 2602 and Env Eng/ Civ Eng 3603; or Graduate standing. (Co-listed with Civ Eng 5605)	3.0- 3.0	77229	LEC	1A	TTh	12:30 - 01:45 pm	FUL	00107A	Oerther,D
			LEC	1A	ARR	ARR	ARR		
5642 <b>Sustainability, Population, Energy,</b> <b>Water, and Materials</b> Prerequisite: Senior or graduate standing. (Co-listed with Civ Eng 5642 and Arch Eng 5642)	3.0- 3.0	76396	LEC	1A	TTh	09:30 - 10:45 am	BCH	00213	Fitch,M
5662 <b>Air Pollution Control Methods</b> Prerequisite: Civ Eng 3330 or equivalent; or graduate standing. (Co-listed with Civ Eng 5662)	3.0- 3.0	77971	LEC	1A	MWF	10:00 - 10:50 am	BCH	00209	Fitch,M
6000 <b>Special Problems</b>	0.0- 6.0	74889	IND	6A	ARR	ARR	ARR		Burken,J
	0.0- 6.0	74890	IND	6B	ARR	ARR	ARR		Fitch,M
	0.0- 6.0	74888	IND	6C	ARR	ARR	ARR		Oerther,D
	0.0- 6.0	74891	IND	6D	ARR	ARR	ARR		Wang,J

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
6040 <b>Oral Examination</b> Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate office permission required.	0.0- 0.0	74896	IND	6A	ARR	ARR	ARR		Burken,J
6099 <b>Research</b>	0.0-15.0	74893	IND	6A	ARR	ARR	ARR		Burken,J
	0.0-15.0	74894	IND	6B	ARR	ARR	ARR		Fitch,M
	0.0-15.0	74895	IND	6C	ARR	ARR	ARR		Morrison,G
	0.0-15.0	75671	IND	6D	ARR	ARR	ARR		Oerther,D
	0.0-15.0	76269	IND	6E	ARR	ARR	ARR		Wang,J
6600 <b>Chemical Principles In Environmental Engineering</b> Prerequisite: Graduate Standing. (Co-listed with Civ Eng 6600)	3.0- 3.0	76314	LEC	1A	MWF	11:00 - 11:50 am	BCH	00316	
6601 <b>Biological Principles In Environmental Engineering Systems</b> (Co-listed with Civ Eng 6601)	3.0- 3.0		LEC	1A	TTh	11:00 - 12:15 pm	LIB	000G14	Oerther,D
	3.0- 3.0	76894	LAB	3A	ARR	ARR	ARR		Oerther,D

## Explosives Engineering

5112 <b>Explosives Handling and Safety</b> Prerequisite: Junior Standing or above.	3.0- 3.0	77907	LEC	1A	T	04:00 - 06:30 pm	MINE		Johnson,C
5612 <b>Principles of Explosives Engineering</b> Prerequisites: Min Eng 2126; successful background check. (Co-listed with Min Eng 5612)	3.0- 3.0		LEC	1A	TTh	11:00 - 11:50 am	MINE		Worsey,P
	3.0- 3.0	76252	LAB	3A	T	01:00 - 03:50 pm	MINE		Worsey,P
	3.0- 3.0	76253	LAB	3B	W	01:00 - 03:50 pm	MINE		Worsey,P
	3.0- 3.0	76507	LAB	3C	Th	01:00 - 03:50 pm	MINE		Worsey,P
6000 <b>Special Problems</b>	1.0- 3.0	77263	IND	6A	ARR	ARR	ARR		Johnson,C
	1.0- 3.0	77264	IND	6B	ARR	ARR	ARR		Worsey,P
6050 <b>Continuous Registration</b> Doctoral students only. Graduate office permission required.	1.0- 1.0	78261	IND	6A	ARR	ARR	ARR		Lusk,B
6070 <b>Graduate Cooperative Experience</b> Prerequisite: 12 hours Exp Eng coursework.	3.0- 3.0	76377	LAB	3A	ARR	ARR	ARR		Worsey,P
	3.0- 3.0	77302	LAB	3B	ARR	ARR	ARR		Johnson,C
6080 <b>Industry Project</b> Prerequisite: 12 hours Exp Eng coursework.	3.0- 3.0	76350	LAB	3A	ARR	ARR	ARR		Worsey,P
	3.0- 3.0	77109	LAB	3B	ARR	ARR	ARR		Johnson,C
	3.0- 3.0	77367	LAB	3C	ARR	ARR	ARR		Lusk,B
	3.0- 3.0	77368	LAB	3D	ARR	ARR	ARR		Perry,K
6099 <b>Research</b> Prerequisites: Consent of instructor required.	0.0-15.0	76443	IND	6A	ARR	ARR	ARR		Johnson,C
	0.0-15.0	76444	IND	6B	ARR	ARR	ARR		Lusk,B
	0.0-15.0	77370	IND	6C	ARR	ARR	ARR		Perry,K
	0.0-15.0	77393	IND	6D	ARR	ARR	ARR		Worsey,P
6112 <b>Explosives Regulations</b> Prerequisite: Graduate standing.	3.0- 3.0	78327	LEC	1A	ARR	ARR	ARR		Worsey,G
6212 <b>Theory Of High Explosives</b> Prerequisite: Graduate Standing. (Co-listed with Min Eng 6632)	3.0- 3.0	77908	LEC	1A	ARR	ARR	ARR		Baird,J
6292 <b>Research Methods</b> Prerequisites: PhD students only. (Co-listed with Min Eng 6992)	3.0- 3.0	78384	LEC	1A	ARR	ARR	ARR		Frimpong,S

## Finance

2150 <b>Corporate Finance I</b> Prerequisites: Bus 1210 or Eng Mgt 2211.	3.0- 3.0	76049	LEC	1A	TTh	12:30 - 01:45 pm	BCH	00314	Zhang,H
	3.0- 3.0	77065	LEC	1B	MWF	10:00 - 10:50 am	BCH	00317	Liu,Y
5160 <b>Corporate Finance II</b> Prerequisite: Finance 2150.	3.0- 3.0	77576	LEC	1A	MWF	11:00 - 11:50 am	BCH	00215	Liu,Y

## French

1101 <b>Elementary French I</b> Prerequisite: Entrance requirements.	4.0- 4.0	75137	LEC	1A	MWF	10:00 - 10:50 am	H-SS	00202	Webster,C
			LEC	1A	ARR	ARR	ARR		
			LEC	1A	ARR	ARR	ARR		
1102 <b>Elementary French II</b> Prerequisite: French 1101.	4.0- 4.0	77260	LEC	1A	MWF	01:00 - 01:50 pm	H-SS	00202	Webster,C
			LEC	1A	ARR	ARR	ARR		
			LEC	1A	ARR	ARR	ARR		

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
1180 <b>Intermediate French</b> Prerequisite: French 1102.	4.0- 4.0	77409	LEC	1A	MWF	02:00 - 02:50 pm	H-SS	00203	Webster,C
2110 <b>Basic French Conversation</b> Prerequisite: French 1102.	3.0- 3.0	78014	LEC	1A	ARR	ARR	ARR	00201	Merfeld-Langston,A
3001 <b>Special Topics</b>	3.0- 3.0	78313	LEC	1A	ARR	ARR	ARR		Merfeld-Langston,A
									Intro to French & Francophone
									<b>UM Shared Course-Secondary</b>
4311 <b>Advanced French Conversation</b> Prerequisite: French 2170.	3.0- 3.0	78015	LEC	1A	TTh	09:30 - 10:45 am	EMGT	00201	Merfeld-Langston,A

## Freshman Engineering

1100 <b>Study And Careers In Engineering</b>	1.0- 1.0	74596	LEC	1A	T	11:00 - 11:50 am	MCNT	00204	Ludlow,D
			LEC	1A	ARR	ARR	ARR		
	1.0- 1.0	74597	LEC	1B	T	01:00 - 01:50 pm	H-SS	000G5	Miller,F
			LEC	1B	ARR	ARR	ARR		
	1.0- 1.0	74598	LEC	1C	W	11:00 - 11:50 am	H-SS	000G5	Ludlow,D
			LEC	1C	ARR	ARR	ARR		
	1.0- 1.0	74599	LEC	1D	W	01:00 - 01:50 pm	H-SS	000G5	Miller,F
			LEC	1D	ARR	ARR	ARR		
	1.0- 1.0	74600	LEC	1E	Th	11:00 - 11:50 am	MCNT	00204	Ludlow,D
			LEC	1E	ARR	ARR	ARR		
	1.0- 1.0	74601	LEC	1F	Th	01:00 - 01:50 pm	H-SS	000G5	Miller,F
			LEC	1F	ARR	ARR	ARR		
	1.0- 1.0	74594	LEC	1G	F	11:00 - 11:50 am	H-SS	000G5	Ludlow,D
			LEC	1G	ARR	ARR	ARR		
	1.0- 1.0	74595	LEC	1H	F	01:00 - 01:50 pm	H-SS	000G5	Miller,F
			LEC	1H	ARR	ARR	ARR		
	1.0- 1.0	76779	LEC	1AA	M	11:00 - 11:50 am	PHYS	00104	Ludlow,D
			LEC	1AA	ARR	ARR	ARR		
	1.0- 1.0	76781	LEC	1BB	M	01:00 - 01:50 pm	H-SS	000G5	Miller,F
			LEC	1BB	ARR	ARR	ARR		

## Geological Engineering

1150 <b>Physical and Environmental Geology</b> Prerequisite: Entrance requirements.	3.0- 3.0		LEC	1A	TTh	11:00 - 12:15 pm	EECH	00G31	Gertsch,L
	3.0- 3.0	78215	LAB	3A	M	01:00 - 03:50 pm	MCNT	00316	Gertsch,L
	3.0- 3.0	78216	LAB	3B	T	12:30 - 03:20 pm	MCNT	00316	Gertsch,L
	3.0- 3.0	78217	LAB	3C	W	01:00 - 03:50 pm	MCNT	00316	Gertsch,L
	3.0- 3.0	78218	LAB	3D	<b>CANCELLED</b>				
	3.0- 3.0	78219	LAB	3E	<b>CANCELLED</b>				
2000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75138	IND	6A	ARR	ARR	ARR		Maerz,N
2605 <b>Statics and Mechanics of Geologic Materials</b> Prerequisite: Permission of instructor.	3.0- 3.0	78069	LEC	1A	<b>CANCELLED</b>				
3148 <b>Fundamentals Of Geographic Information Systems</b> (Co-listed with Geology 3811)	3.0- 3.0		LEC	1A	TTh	11:00 - 11:50 am	MCNT	00216	Bridges,D
	3.0- 3.0	75140	LAB	3A	Th	12:30 - 03:15 pm	MCNT	000B14	Bridges,D
	3.0- 3.0	77069	LAB	3B	Th	03:30 - 06:15 pm	MCNT	000B14	Bridges,D
3249 <b>Fundamentals Of Computer Applications In Geological Engineering</b> Prerequisites: Geo Eng 1150, Comp Sci 1970, 1980.	3.0- 3.0		LEC	1A	MW	10:00 - 10:50 am	MCNT	000B14	Hilgedick,S
	3.0- 3.0	78071	LAB	3A	M	01:00 - 03:50 pm	MCNT	000B14	Hilgedick,S
4000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75141	IND	6A	ARR	ARR	ARR		Gertsch,L
4010 <b>Current Topics and Professionalism</b> Prerequisite: Senior standing.	0.5- 0.5	75143	RSD	2A	W	04:00 - 04:50 pm	MCNT	00204	Anderson,N
4099 <b>Undergraduate Research</b>	0.0- 6.0	75148	IND	6A	ARR	ARR	ARR		Grote,K
	0.0- 6.0	77151	IND	6B	ARR	ARR	ARR		Guggenberger,J
5085 <b>Internship</b> DE students only.	0.0-15.0	75159	IND	6A	ARR	ARR	ARR		
5090 <b>Geological Engineering Design</b> Prerequisite: To be taken the semester before graduation.	3.0- 3.0		LEC	1A	Th	07:00 - 08:40 pm	MCNT	000B10	
	3.0- 3.0	75146	LAB	3A	Th	03:00 - 05:50 pm	MCNT	000B10	

CATALOG #	AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
5099	<b>Research</b> Prerequisite: Consent of instructor required.	0.0-15.0	75154	IND	6A	ARR	ARR	ARR		Anderson,N
		0.0-15.0	75155	IND	6B	ARR	ARR	ARR		Cawfield,J
		0.0-15.0	75156	IND	6C	ARR	ARR	ARR		Gertsch,L
		0.0-15.0	75157	IND	6D	ARR	ARR	ARR		Grote,K
		0.0-15.0	76117	IND	6E	ARR	ARR	ARR		Guggenberger,J
		0.0-15.0	75158	IND	6F	ARR	ARR	ARR		Maerz,N
		0.0-15.0	76871	IND	6G	ARR	ARR	ARR		Rogers,J
5331	<b>Subsurface Hydrology</b> Prerequisites: Geo Eng 1150, Math 3304.	3.0- 3.0	76601	LEC	1A	MWF	08:00 - 08:50 am	BCH	00213	Grote,K
5441	<b>Engineering Geology And Geotechnics</b> Prerequisite: Geo Eng 3175.	3.0- 3.0	75144	LEC	1A	M	04:00 - 06:30 pm	BCH	00213	Rogers,J
5471	<b>Rock Engineering</b> Prerequisite: Geo Eng 3175.	3.0- 3.0	75147	LEC	1A	T	04:00 - 06:30 pm	TMH	00260	Maerz,N
				LEC	1A	ARR	ARR	ARR		
5556	<b>Renewable Energy Systems</b> Prerequisites: Math 3304, Physics 2135, and preceded or accompanied by Geo Eng 4115 or any Probability and Statistics class. Junior or senior standing is required.	3.0- 3.0	78072	LEC	1A	TTh	09:30 - 10:45 am	MCNT	000B14	Guggenberger,J
5736	<b>Geophysical Field Methods</b> Prerequisite: Junior level standing or higher. (Co-listed with Geophys 5736)	3.0- 3.0		LEC	1A		<b>CANCELLED</b>			
		3.0- 3.0	76013	LAB	3A		<b>CANCELLED</b>			
5761	<b>Transportation Applications of Geophysics</b> Prerequisite: Junior level standing or higher. (Co-listed with Geophys 5761 and Civ Eng 5750)	3.0- 3.0		LEC	1A	MW	12:00 - 12:50 pm	CS	00209	Anderson,N
		3.0- 3.0	75959	LAB	3A	M	02:00 - 02:50 pm	CS	00209	Anderson,N
6000	<b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75149	IND	6A	ARR	ARR	ARR		Anderson,N
		0.0- 6.0	75150	IND	6B	ARR	ARR	ARR		Cawfield,J
		0.0- 6.0	75151	IND	6C	ARR	ARR	ARR		Gertsch,L
		0.0- 6.0	75152	IND	6D	ARR	ARR	ARR		Grote,K
		0.0- 6.0	76015	IND	6E	ARR	ARR	ARR		Guggenberger,J
		0.0- 6.0	76016	IND	6F	ARR	ARR	ARR		Maerz,N
		0.0- 6.0	77154	IND	6G	ARR	ARR	ARR		Rogers,J
6010	<b>Seminar</b>	1.0- 1.0	75153	RSD	2A	W	04:00 - 04:50 pm	MCNT	00204	Anderson,N
6040	<b>Oral Examination</b> Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate office permission required.	0.0- 0.0	75160	IND	6A	ARR	ARR	ARR		Rogers,J
6050	<b>Continuous Registration</b> Doctoral students only. Graduate office permission required.	1.0- 1.0	75161	IND	6A	ARR	ARR	ARR		Rogers,J
6099	<b>Research</b>	0.0-15.0	77595	IND	6A	ARR	ARR	ARR		Maerz,N
		0.0-15.0	77778	IND	6B	ARR	ARR	ARR		Rogers,J
		0.0-15.0	78363	IND	6C	ARR	ARR	ARR		Grote,K
		0.0-15.0	78387	IND	6D	ARR	ARR	ARR		Gertsch,L
6331	<b>Advanced Subsurface Hydrology</b> Prerequisite: Geo Eng 5331 or equivalent.	3.0- 3.0	78074	LEC	1A	MWF	11:00 - 11:50 am	EECH	00239	Grote,K
6441	<b>Geotechnical Construction Practice</b> Prerequisite: Geo Eng 5441.	3.0- 3.0	78073	LEC	1A	T	07:00 - 09:30 pm	BERTELS	00B12B	Rogers,J
6477	<b>Discontinuous Rock</b> Prerequisite: Min Eng 4823 or Geo Eng 5471.	3.0- 3.0	76302	LEC	1A	M	07:00 - 09:30 pm	BCH	00213	Maerz,N
				LEC	1A	ARR	ARR	ARR		

## Geology

1110	<b>Physical And Environmental Geology</b> Prerequisite: Entrance requirements.	3.0- 3.0	75162	LEC	1A	TTh	11:00 - 12:15 pm	CS	00216	Wronkiewicz,D
										<b>MOTR GEOL 100: Geology</b>
										<b>Field Trip Required</b>
1119	<b>Physical and Environmental Geology Laboratory</b>	1.0- 1.0	76955	LAB	3A	W	06:00 - 09:00 pm	MCNT	00316	Wronkiewicz,D
		1.0- 1.0	78357	LAB	3B	W	06:00 - 09:00 pm	MCNT	00312	Wronkiewicz,D
										<b>Prerequisite</b>
2610	<b>Mineralogy And Crystallography</b> Prerequisites: Chem 1310 and Chem 1319.	4.0- 4.0		LEC	1A	MWF	11:00 - 11:50 am	MCNT	00210	Wronkiewicz,D
		4.0- 4.0	75164	LAB	3A	Th	02:00 - 04:45 pm	MCNT	00108	Wronkiewicz,D
		4.0- 4.0	76260	LAB	3B	Th	11:00 - 01:45 pm	MCNT	00108	Wronkiewicz,D

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
3000 <b>Special Problems</b> Prerequisite: Consent of instructor.	0.0- 6.0	75165	IND	6A	ARR	ARR	ARR		Hogan,J
3310 <b>Structural Geology</b> Prerequisite: Geology 1110 or Geo Eng 1150.	3.0- 3.0	75167	LEC	1A	MWF	09:00 - 09:50 am	BCH	00125	Hogan,J
									<b>Field Trip Required</b>
			LEC	1A	MWF	09:00 - 09:50 am	BCH	00124	
									<b>Field Trip Required</b>
3319 <b>Structural Geology Lab</b> Prerequisites: Preceded or accompanied by GEOLOGY 3310.	1.0- 1.0	76952	LAB	3A	T	12:30 - 03:20 pm	MCNT	00312	Hogan,J
	1.0- 1.0	76953	LAB	3B	W	01:00 - 03:50 pm	MCNT	00312	Hogan,J
	1.0- 1.0	76954	LAB	3C	<b>CANCELLED</b>				
3511 <b>Introduction to Mineral Deposits</b> Prerequisites: Geology 1110 and Geology 2610.	3.0- 3.0	75168	LEC	1A	MW	05:00 - 06:15 pm	MCNT	00308	Locmelis,M
									<b>Field Trip Required</b>
3631 <b>Systematic Paleontology</b> Prerequisite: Geology 1110 or Geology 1120 or Bio Sci 1113.	3.0- 3.0		LEC	1A	MW	10:00 - 10:50 am	EECH	00239	Obob Ikuenobe,F
	3.0- 3.0	77401	LAB	3A	W	01:00 - 03:50 pm	BCH	00121	Obob Ikuenobe,F
3811 <b>Fundamentals Of Geographic Information Systems</b> (Co-listed with Geo Eng 3148)	3.0- 3.0		LEC	1A	TTh	11:00 - 11:50 am	MCNT	00216	Bridges,D
	3.0- 3.0	75947	LAB	3A	Th	12:30 - 03:15 pm	MCNT	000B14	Bridges,D
	3.0- 3.0	76957	LAB	3B	Th	03:30 - 06:15 pm	MCNT	000B14	Bridges,D
4000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75169	IND	6A	ARR	ARR	ARR		Hogan,J
4001 <b>Special Topics</b> Prerequisites: Geology 3630 and Geology 3639.	3.0- 3.0		LEC	1A	TTh	09:00 - 09:50 am	MCNT	00243	Yang,W
									Carbonate Sedimentology
	3.0- 3.0	78076	LAB	3A	T	02:00 - 04:15 pm	MCNT	00108	Yang,W
									Carbonate Sedimentology
4010 <b>Seminar</b> Prerequisite: Senior standing.	0.0- 6.0	75166	RSD	2A	Th	12:30 - 01:20 pm	MCNT	00206	
			RSD	2A	W	04:00 - 04:50 pm	MCNT	00206	Borrok,D
4099 <b>Undergraduate Research</b>	0.0- 6.0	75173	IND	6A	ARR	ARR	ARR		Hogan,J
	0.0- 6.0	75174	IND	6B	ARR	ARR	ARR		Locmelis,M
	0.0- 6.0	75175	IND	6C	ARR	ARR	ARR		Obob Ikuenobe,F
	0.0- 6.0	75176	IND	6D	ARR	ARR	ARR		Obrist Famer,J
	0.0- 6.0	76322	IND	6E	ARR	ARR	ARR		Wronkiewicz,D
	0.0- 6.0	77336	IND	6F	ARR	ARR	ARR		Yang,W
4411 <b>Hydrogeology</b> Prerequisites: Geo Eng 1150 or Geology 1110, Geology 3620 recommended.	3.0- 3.0	77298	LEC	1A	MWF	08:00 - 08:50 am	BCH	00213	Grote,K
4711 <b>Paleoclimatology and Paleocology</b> Prerequisite: Geology 1110 or Geology 1120 or Geo Eng 1150.	3.0- 3.0	77917	LEC	1A	MWF	12:00 - 12:50 pm	MCNT	00243	Obob Ikuenobe,F
5000 <b>Special Problems</b>	0.0- 6.0	75177	IND	6A	ARR	ARR	ARR		Hogan,J
	0.0- 6.0	77786	IND	6B	ARR	ARR	ARR		Wronkiewicz,D
5010 <b>Seminar</b>	0.0- 6.0	75178	RSD	2A	Th	12:30 - 01:20 pm	MCNT	00206	
			RSD	2A	M	04:00 - 04:50 pm	MCNT	00204	Borrok,D
5040 <b>Oral Examination</b> Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate office permission required.	0.0- 0.0	75183	IND	6A	ARR	ARR	ARR		
5085 <b>Internship</b> Prerequisite: Graduate Standing.	3.0- 3.0	78371	IND	6A	ARR	ARR	ARR		Locmelis,M
5099 <b>Research</b>	0.0-15.0	75179	IND	6A	ARR	ARR	ARR		Hogan,J
	0.0-15.0	75180	IND	6B	ARR	ARR	ARR		Locmelis,M
	0.0-15.0	75181	IND	6C	ARR	ARR	ARR		Obob Ikuenobe,F
	0.0-15.0	75182	IND	6D	ARR	ARR	ARR		Obrist Famer,J
	0.0-15.0	77335	IND	6E	ARR	ARR	ARR		Wronkiewicz,D
	0.0-15.0	77348	IND	6F	ARR	ARR	ARR		Yang,W
5111 <b>Advanced Physical Geology</b> Prerequisite: Consent of instructor.	3.0- 3.0	77918	LEC	1A	M	01:00 - 03:45 pm	ARR		Hogan,J
5411 <b>Advanced Geochemistry</b> Prerequisite: Geology 3410.	3.0- 3.0	77919	LEC	1A	TTh	12:30 - 01:45 pm	MCNT	00211	Locmelis,M
5513 <b>Petroleum Geology</b> Prerequisites: Geology 1110 or Geo Eng 1150; accompanied or preceded by both Geology 3310 and Geology 3620.	3.0- 3.0		LEC	1A	TTh	11:00 - 11:50 am	BCH	00125	Obrist Famer,J
	3.0- 3.0	75172	LAB	3A	T	02:00 - 04:15 pm	MCNT	00265	Obrist Famer,J
	3.0- 3.0	76337	LAB	3B	Th	02:00 - 04:15 pm	MCNT	00265	Obrist Famer,J

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
5661 <b>Advanced Stratigraphy and Basin Evolution</b> Prerequisites: Geology 3620 and Geology 3310.	3.0- 3.0	77156	LEC	1A	TTh	11:00 - 12:15 pm	MCNT	00243	Yang,W
5671 <b>Clay Mineralogy</b> Prerequisites: Geology 2610 and 3410, or Chem 2310, or Civ Eng 5715, or Geo Eng 5172.	3.0- 3.0 3.0- 3.0	78078	LEC LAB	1A 3A	MWF ARR	10:00 - 10:50 am ARR	MCNT ARR	00265	Wronkiewicz,D Wronkiewicz,D
6050 <b>Continuous Registration</b> Doctoral students only. Graduate office permission required.	1.0- 1.0	75184	IND	6A	ARR	ARR	ARR		Gao,S
6421 <b>Environmental Geology</b> Prerequisites: GEOLOGY 1110 or 1120 or equivalents.	3.0- 3.0	77709	LEC	1A	TTh	06:00 - 07:15 pm	BCH	00121	Tucker,R
6711 <b>Advanced Paleoclimatology and Paleocology</b> Prerequisite: Geology 3620.	3.0- 3.0	77920	LEC	1A	MWF	12:00 - 12:50 pm	MCNT	00243	Oboh Ikuenobe,F
6811 <b>Sedimentary Basin Analysis</b> Prerequisites: Geology 3310, 3620, 3410 or 4441 or 4451.	3.0- 3.0	77147	LEC	1A	TTh	11:00 - 12:15 pm	ARR		Yang,W

## Geophysics

3210 <b>Introduction to Geophysics</b> Prerequisites: Math 1208 and Geology 1110.	3.0- 3.0	76939	LEC	1A	TTh	09:30 - 10:45 am	MCNT	00216	Gao,S
4000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75185	IND	6A	ARR	ARR	ARR		Gao,S
4099 <b>Undergraduate Research</b>	0.0- 6.0 0.0- 6.0	75186 75187	IND IND	6A 6B	ARR ARR	ARR ARR	ARR ARR		Gao,S Liu,K
4231 <b>Seismic Interpretation</b> Prerequisites: Math 1208 or Math 1214; Geology 1110 or Geo Eng 1150.	3.0- 3.0 3.0- 3.0 3.0- 3.0 3.0- 3.0	75989 76569 76795	LEC LAB LAB	1A 3A 3C	MW T F	02:00 - 02:50 pm 01:00 - 02:50 pm 03:00 - 04:50 pm	EMGT MCNutt MCNT	00103 234 000B14	Liu,K Liu,K Liu,K
5000 <b>Special Problems</b>	3.0- 3.0 0.0- 6.0 0.0- 6.0	77107 75188 75189	LAB IND IND	3D 6A 6B	T ARR ARR	01:00 - 02:50 pm ARR ARR	MCNT ARR ARR	000B14	Liu,K Gao,S Liu,K
5010 <b>Seminar</b>	0.0- 6.0	75190	RSD	2A	Th	12:30 - 01:20 pm	MCNT	00206	
5040 <b>Oral Examination</b> Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate office permission required.	0.0- 0.0	75194	IND	6A	ARR	ARR	ARR	00204	
5099 <b>Research</b> Prerequisite: Consent of instructor required.	0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0	75191 75192 75193 75938	IND IND IND IND	6A 6B 6C 6D	ARR ARR ARR ARR	ARR ARR ARR ARR	ARR ARR ARR ARR		Anderson,N Atekwana,E Gao,S Liu,K
5261 <b>Computational Geophysics</b> Prerequisite: Geophys 3210.	3.0- 3.0 3.0- 3.0	76603	LEC LAB	1A 3A	F ARR	02:00 - 03:50 pm ARR	MCNT ARR	00114	Gao,S Gao,S
5736 <b>Geophysical Field Methods</b> Prerequisite: Junior level standing or higher. (Co-listed with Geo Eng 5736)	3.0- 3.0 3.0- 3.0	75879	LEC LAB	1A 3A	<b>CANCELLED</b> <b>CANCELLED</b>				
5761 <b>Transportation Applications of Geophysics</b> Prerequisite: Junior level standing or higher. (Co-listed with Geo Eng 5761 and Civ Eng 5750)	3.0- 3.0 3.0- 3.0	75956	LEC LAB	1A 3A	MW M	12:00 - 12:50 pm 02:00 - 02:50 pm	CS CS	00209 00209	Anderson,N Anderson,N
6040 <b>Oral Examination</b>	0.0- 0.0	76838	IND	6A	ARR	ARR	ARR		
6050 <b>Continuous Registration</b> Doctoral students only. Graduate office permission required.	1.0- 1.0	75195	IND	6A	ARR	ARR	ARR		Gao,S
6211 <b>Advanced Seismic Interpretation</b> Prerequisites: Geophys 3210 or Geophys 5202.	3.0- 3.0 3.0- 3.0	77301	LEC LAB LAB	1A 3A 3A	MW F ARR	11:00 - 11:50 am 11:00 - 11:50 am ARR	MCNT MCNT MCNT	00312 000B14 000B14	Liu,K Liu,K





CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
3441 <b>The United States In World War II</b> Prerequisite: History 1300 or 1310.	3.0- 3.0	77892	LEC	1A	TTh	03:30 - 04:45 pm	H-SS	00101	Ketcherside,J
3762 <b>American Foreign Policy Since 1945</b> Prerequisite: History 1310 or Pol Sci 1200. (Co-listed with Pol Sci 3762)	3.0- 3.0	77889	LEC	1A	W	06:00 - 08:45 pm	H-SS	00103	Meagher,M
4000 <b>Special Problems</b> Prerequisite: Consent of instructor	0.0- 6.0	75200	IND	6A	ARR	ARR	ARR		Ahmad,D
	0.0- 6.0	75201	IND	6B	ARR	ARR	ARR		Bruening,M
	0.0- 6.0	75202	IND	6C	ARR	ARR	ARR		DeWitt,P
	0.0- 6.0	75203	IND	6D	ARR	ARR	ARR		Gragg,L
	0.0- 6.0	75762	IND	6E	ARR	ARR	ARR		McManus,J
	0.0- 6.0	75857	IND	6F	ARR	ARR	ARR		Schramm,J
	0.0- 6.0	76470	IND	6G	ARR	ARR	ARR		Sheppard,K
4001 <b>Special Topics</b>	3.0- 3.0	78282	LEC	1A	ARR	ARR	ARR		Schramm,J
									Guiding Dsgn Hist Preservation
									<b>UM Shared Course-Secondary</b>
4097 <b>Senior Project</b> Prerequisites: History 2790 and senior standing.	3.0- 3.0	76461	LEC	1A	ARR	ARR	ARR		Fogg,S
4245 <b>Nazi Germany and the Holocaust</b> Prerequisite: History 1200.	3.0- 3.0	77896	LEC	1A	TTh	09:30 - 10:45 am	H-SS	000G9	Fogg,S
4435 <b>History of the American West</b> Prerequisite: History 1300 or History 1310.	3.0- 3.0	77893	LEC	1A	MWF	09:00 - 09:50 am	H-SS	00103	Ahmad,D
									<b>Communication Emphasized</b>
4550 <b>Architecture, Technology and Society; 1750 to Present</b> Prerequisites: History 1100 or History 1200 or History 1300 or History 1310 or Pol Sci 1200. Recommended: Junior or Senior Standing. Recommended for Arch Eng majors: Art 3203 taken prior to course.	3.0- 3.0	77894	LEC	1A	T	12:30 - 01:45 pm	H-SS	00101	Schramm,J
									<b>Field Trip Required</b>
			LEC	1A	ARR	ARR	ARR		
									<b>Field Trip Required</b>
	3.0- 3.0	77895	LEC	1B	Th	12:30 - 01:45 pm	H-SS	00101	Schramm,J
									<b>Field Trip Required</b>
			LEC	1B	ARR	ARR	ARR		
									<b>Field Trip Required</b>

## Info Science & Technology

1551 <b>Implementing Information Systems: User Perspective</b>	3.0- 3.0	75205	LEC	1A	MWF	08:00 - 08:50 am	TMH	00251	Hilgers,M
1552 <b>Implementing Information Systems: Data Perspective</b> Prerequisite: IS&T 1551.	3.0- 3.0	76022	LEC	1A	MWF	09:00 - 09:50 am	TMH	00251	Bates,C

## Info Science & Technology

1561 <b>Algorithms and Programming with Java</b>	3.0- 3.0	78362	LEC	1A	TTh	12:30 - 01:45 pm	BCH	00313	Oswald,N
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## Info Science & Technology

1750 <b>Introduction to Management Information Systems</b>	3.0- 3.0		LEC	1A	MW	10:00 - 10:50 am	TMH	00251	Chiu,Y
	3.0- 3.0	75207	LAB	3A	F	10:00 - 10:50 am	TMH	00251	Chiu,Y
3420 <b>Introduction to Data Science and Management</b> Prerequisites: IS&T 1552 or Comp Sci 1510.	3.0- 3.0	76927	LEC	1A	MWF	09:00 - 09:50 am	EMGT	00102	Chen,L
3423 <b>Database Management</b> Prerequisites: IS&T 1750; IS&T 1552 or Comp Sci 1510.	3.0- 3.0	75209	LEC	1A	TTh	02:00 - 03:15 pm	EMGT	00103	Flachsbart,B
3553 <b>Modular Software Systems in Java</b> Prerequisites: IS&T 1552 and IS&T 3131.	3.0- 3.0	78105	LEC	1A	<b>CANCELLED</b>				
4099 <b>Undergraduate Research</b>	0.0- 6.0	75699	IND	6A	ARR	ARR	ARR		Lea,B
	0.0- 6.0	76369	IND	6B	ARR	ARR	ARR		Nah,F
4261 <b>Information Systems Project Management</b> Prerequisites: IST 1552 or Comp Sci 1510; Senior Standing.	3.0- 3.0	76587	LEC	1A	T	07:00 - 09:30 pm	FUL	00107A	Flachsbart,B
4450 <b>Introduction to Information Visualization</b> Prerequisites: Statistics, Calculus, and Programming Knowledge.	3.0- 3.0	76999	LEC	1A	MWF	10:00 - 10:50 am	FUL	00107A	Hilgers,M

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
4641 <b>Digital Commerce and the Internet of Things</b> Prerequisites: IS&T 1750 and at least Sophomore standing.	3.0- 3.0	76536	LEC	1A	MWF	01:00 - 01:50 pm	TMH	00260	Bates,C
4654 <b>Web and Digital Media Development</b>	3.0- 3.0	75208	LEC	1A	TTh	11:00 - 12:15 pm	CSF	00114	Hall,R
4680 <b>Introduction to Web and New Media Studies</b> Prerequisite: Junior or Senior standing.	3.0- 3.0	76422	LEC	1A	ARR	ARR	ARR		Hall,R
4780 <b>Human and Organizational Factors in Cybersecurity</b>	3.0- 3.0	77722	LEC	1A	TTh	12:30 - 01:45 pm	FUL	00220	Twyman,N
5099 <b>Research</b>	0.0-15.0	75213	IND	6A	ARR	ARR	ARR		Flachsbart,B
	0.0-15.0	75697	IND	6B	ARR	ARR	ARR		Hall,R
	0.0-15.0	75704	IND	6C	ARR	ARR	ARR		Hilgers,M
	0.0-15.0	75971	IND	6D	ARR	ARR	ARR		Lea,B
	0.0-15.0	75859	IND	6E	ARR	ARR	ARR		Nah,F
	0.0-15.0	76215	IND	6F	ARR	ARR	ARR		Siau,K
	0.0-15.0	76262	IND	6G	ARR	ARR	ARR		Yu,W
5251 <b>Technological Innovation Management and Leadership</b> Prerequisite: Senior or Graduate Standing.	3.0- 3.0	75211	LEC	1A	M	07:00 - 09:30 pm	FUL	00107A	Nah,F
5423 <b>Foundations of Data Management</b> Prerequisites: IS&T 1750, IS&T 1552, and graduate standing.	3.0- 3.0	77460	LEC	1A	TTh	02:00 - 03:15 pm	EMGT	00103	Flachsbart,B
5885 <b>Human-Computer Interaction</b>	3.0- 3.0	75996	LEC	1A	MWF	02:00 - 02:50 pm	TMH	00260	Bates,C
5886 <b>Prototyping Human-Computer Interactions</b> Prerequisite: Preceded or accompanied by IS&T 5885.	3.0- 3.0	76375	LEC	1A	TTh	09:30 - 10:45 am	EECH	00239	Twyman,N
6261 <b>Advanced Information Systems Project Management</b> Prerequisites: IS&T MS Entrance requirements, with strong programming knowledge.	3.0- 3.0	76588	LEC	1A	T	07:00 - 09:30 pm	FUL	00107A	Flachsbart,B
6443 <b>Information Retrieval and Analysis</b> Prerequisite: ERP 5410 or statistics knowledge.	3.0- 3.0	76492	LEC	1A	TTh	02:00 - 03:15 pm	FUL	00107A	Yu,W
6450 <b>Information Visualization</b> Prerequisites: Statistics, Calculus, and Programming Knowledge.	3.0- 3.0	76997	LEC	1A	MWF	10:00 - 10:50 am	FUL	00107A	Hilgers,M
6641 <b>Advanced Digital Commerce and the Internet of Things</b> Prerequisites: Knowledge of management information systems.	3.0- 3.0	76537	LEC	1A	MWF	01:00 - 01:50 pm	TMH	00260	Bates,C
6654 <b>Advanced Web and Digital Media Development</b>	3.0- 3.0	76800	LEC	1A	TTh	11:00 - 12:15 pm	CSF	00114	Hall,R
6680 <b>Advanced Web and New Media Studies</b>	3.0- 3.0	76695	LEC	1A	ARR	ARR	ARR		Hall,R
6780 <b>Adv Human and Organizational Factors in Cybersecurity</b>	3.0- 3.0	77723	LEC	1A	TTh	12:30 - 01:45 pm	FUL	00220	Twyman,N
6887 <b>Research Methods in Business and IS&amp;T</b> (Co-listed with BUS 6887)	3.0- 3.0	76330	LEC	1A	Th	07:00 - 09:30 pm	FUL	00107A	Nah,F

## Marketing

3110 <b>Marketing</b>	3.0- 3.0	76006	LEC	1A	MWF	01:00 - 01:50 pm	IDE	00105	Fukawa,N
	3.0- 3.0	76374	LEC	1B	MWF	02:00 - 02:50 pm	IDE	00105	Fukawa,N
5310 <b>Digital Marketing and Promotions</b> Prerequisites: At least Junior standing.	3.0- 3.0	76512	LEC	1A	TTh	02:00 - 03:15 pm	BERTELS	00B12A	Stanley,S

## Materials Science & Eng

4810 <b>Chemistry And Inherent Properties Of Polymers</b> Prerequisite: Chem 1320 or Met Eng 1210. (Co-listed with Chem 4810)	3.0- 3.0	78311	LEC	1A	MWF	12:00 - 12:50 pm	SHNK	00305	Schuman,T
4819 <b>Polymer Science Laboratory</b> Prerequisite: Chem 4810 or MS&E 4810 and preceded or accompanied by Chem 1100. (Co-listed with Chem 4819)	1.0- 1.0	78297	LAB	3A	T	08:00 - 11:50 am	SHNK	00305	Schuman,T

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR	
				LAB	3A	T	11:00 - 01:50 pm	SHNK	00303	
				Prerequisite: Chem 4810 or MS&E 4810 and preceded or accompanied by Chem 1100. (Co-listed with Chem 4819)						

## Materials Science & Eng

5000	Special Problems	0.0- 6.0	75901	IND	6A	ARR	ARR	ARR		Moats,M
5010	Seminar	0.0- 6.0	75841	RSD	2A	Th	03:00 - 04:50 pm	MCNT	00204	Moats,M
5040	Oral Examination	0.0- 0.0	75897	IND	6A	ARR	ARR	ARR		Hilmas,G
5099	Research	0.0-15.0	75814	IND	6A	ARR	ARR	ARR		Anderson,H
		0.0-15.0	75815	IND	6B	ARR	ARR	ARR		Asle Zaeem,M
		0.0-15.0	75816	IND	6C	ARR	ARR	ARR		Brow,R
		0.0-15.0	75817	IND	6D	ARR	ARR	ARR		Day,D
		0.0-15.0	75818	IND	6E	ARR	ARR	ARR		Dogan,F
		0.0-15.0	75819	IND	6F	ARR	ARR	ARR		Drewniak,J
		0.0-15.0	75820	IND	6G	ARR	ARR	ARR		Fahrenholtz,W
		0.0-15.0	75821	IND	6H	ARR	ARR	ARR		Hilmas,G
		0.0-15.0	75822	IND	6J	ARR	ARR	ARR		Huebner,W
		0.0-15.0	75823	IND	6K	ARR	ARR	ARR		Lekakh,S
		0.0-15.0	75824	IND	6L	ARR	ARR	ARR		Miller,F
		0.0-15.0	75825	IND	6M	ARR	ARR	ARR		Moats,M
		0.0-15.0	75826	IND	6N	ARR	ARR	ARR		Newkirk,J
		0.0-15.0	75827	IND	6P	ARR	ARR	ARR		O'Keefe,M
		0.0-15.0	75828	IND	6R	ARR	ARR	ARR		Richards,V
		0.0-15.0	75829	IND	6T	ARR	ARR	ARR		Schlesinger,M
		0.0-15.0	75830	IND	6U	ARR	ARR	ARR		Schwartz,R
		0.0-15.0	75831	IND	6V	ARR	ARR	ARR		Smith,J
		0.0-15.0	75832	IND	6W	ARR	ARR	ARR		Switzer,J
		0.0-15.0	75833	IND	6X	ARR	ARR	ARR		Van Aken,D
		0.0-15.0	75834	IND	6Y	ARR	ARR	ARR		Watts,J
		0.0-15.0	76146	IND	6Z	ARR	ARR	ARR		Xing,Y
		0.0-15.0	78058	IND	6AA	ARR	ARR	ARR		Zhou,C
5220	Advanced Phase Equilibria	3.0- 3.0	76321	LEC	1A	MWF	10:00 - 10:50 am	MCNT	00212	Smith,J
	Prerequisite: Graduate standing.									
5310	Biomaterials I	3.0- 3.0	77277	LEC	1A	TTh	12:30 - 01:45 pm	TMH	00256	Jung,S
	Prerequisites: Senior undergraduate standing. (Co-listed with BIO SCI 5210, CHEM ENG 5200)									

## Materials Science & Eng

5810	Introduction to Polymeric Materials	3.0- 3.0	78312	LEC	1A	MWF	12:00 - 12:50 pm	SHNK	00305	Schuman,T
	Prerequisite: Chem 1320 or Met Eng 1210. (Co-listed with Chem 5810)									

## Materials Science & Eng

5819	Polymer Synthesis and Characterization Lab	1.0- 1.0	78309	LAB	3A	T	10:00 - 10:50 am	CH	00103	Schuman,T
				LAB	3A	T	11:00 - 01:50 pm	SHNK	00303	
	Prerequisite: Chem 4810 or MS&E 4810 or Chem 5810 or MS&E 5810 or Chem Eng 5310, preceded or accompanied by Chem 1100 or Chem 5100 or an equivalent training program approved by S&T. (Co-listed with Chem 5819)									
6050	Continuous Registration	1.0- 1.0	75896	IND	6A	ARR	ARR	ARR		Moats,M
6099	Research	0.0-15.0	77021	IND	6A	ARR	ARR	ARR		Asle Zaeem,M
		0.0-15.0	77022	IND	6B	ARR	ARR	ARR		Bartlett,L
		0.0-15.0	77023	IND	6C	ARR	ARR	ARR		Brow,R
		0.0-15.0	77024	IND	6D	ARR	ARR	ARR		Day,D
		0.0-15.0	77025	IND	6E	ARR	ARR	ARR		Dogan,F
		0.0-15.0	77026	IND	6F	ARR	ARR	ARR		Drewniak,J
		0.0-15.0	77027	IND	6G	ARR	ARR	ARR		Fahrenholtz,W
		0.0-15.0	77028	IND	6H	ARR	ARR	ARR		Hilmas,G
		0.0-15.0	77029	IND	6J	ARR	ARR	ARR		Huebner,W
		0.0-15.0	77030	IND	6K	ARR	ARR	ARR		Kumar,A
		0.0-15.0	77031	IND	6L	ARR	ARR	ARR		Lekakh,S
		0.0-15.0	77032	IND	6M	ARR	ARR	ARR		Lipke,D

		0.0-15.0	77033	IND	6N	ARR	ARR	ARR		Miller,F
		0.0-15.0	77034	IND	6P	ARR	ARR	ARR		Moats,M
		0.0-15.0	77035	IND	6Q	ARR	ARR	ARR		Nath,M
		0.0-15.0	77036	IND	6R	ARR	ARR	ARR		Newkirk,J
		0.0-15.0	77037	IND	6T	ARR	ARR	ARR		O'Keefe,M
		0.0-15.0	77038	IND	6U	ARR	ARR	ARR		O'Malley,R
		0.0-15.0	77039	IND	6V	ARR	ARR	ARR		Richards,V
		0.0-15.0	77040	IND	6W	ARR	ARR	ARR		Schlesinger,M
		0.0-15.0	77041	IND	6X	ARR	ARR	ARR		Smith,J
		0.0-15.0	77042	IND	6Y	ARR	ARR	ARR		Switzer,J
		0.0-15.0	77062	IND	6Z	ARR	ARR	ARR		Van Aken,D
		0.0-15.0	77339	IND	6AA	ARR	ARR	ARR		Schwartz,R
		0.0-15.0	77343	IND	6BB	ARR	ARR	ARR		Watts,J
		0.0-15.0	77345	IND	6CC	ARR	ARR	ARR		Wen,H
		0.0-15.0	77766	IND	6DD	ARR	ARR	ARR		Xing,Y
		0.0-15.0	77767	IND	6EE	ARR	ARR	ARR		Xu,M
		0.0-15.0	78059	IND	6FF	ARR	ARR	ARR		Zhou,C
6110	<b>Bonding, Crystallography, and Structure-Property Relationships</b> Prerequisite: Graduate standing, or undergraduate standing with instructor and advisor approval.	3.0- 3.0	76840	LEC	1A	MWF	11:00 - 11:50 am	MCNT	00245	Huebner,W
6310	<b>Biomaterials II</b> Prerequisite: Graduate Standing. (Co-listed with BIO SCI 6210, CHEM ENG 6300)	3.0- 3.0	77281	LEC	1A	TTh	12:30 - 01:45 pm	TMH	00256	Jung,S

## Mathematics

1101	<b>Introduction To Mathematics</b> Required of Fall Semester Freshman Math Majors	1.0- 1.0	75214	LEC	1A	W	03:00 - 03:50 pm	ROLLA	000G5	Runnion,P
1103	<b>Fundamentals Of Algebra</b> Prerequisite: Entrance requirements.	3.0- 3.0	75221	LEC	1A	MWF	08:00 - 08:50 am	CS	00205	
		3.0- 3.0	75222	LEC	1B	MWF	11:00 - 11:50 am	ROLLA	000G5	
		3.0- 3.0	75894	LEC	1C	MWF	11:00 - 11:50 am	EECH	00101	Harder,A
		3.0- 3.0	76424	LEC	1D	MWF	02:00 - 02:50 pm	TMH	00254	Harder,A
		3.0- 3.0	77777	LEC	1E	MWF	02:00 - 02:50 pm	CS	00216	
1110	<b>Introduction To Mathematical Ideas</b> Prerequisite: Two years high school mathematics.	3.0- 3.0	77537	LEC	1A	<b>CANCELLED</b>				
1120	<b>College Algebra</b> By placement exam. Sections E, F, G, H begin Oct 25th.	5.0- 5.0	75215	LEC	1A	MTWThF	08:00 - 08:50 am	BCH	00120	Wilkins,B
		5.0- 5.0	76347	LEC	1B	MTWThF	11:00 - 11:50 am	CS	00202	Yeni,G
		5.0- 5.0	75217	LEC	1D	MTWThF	02:00 - 02:50 pm	CS	00207	
		5.0- 5.0	77320	LEC	1H	ARR	ARR	ARR		
1140	<b>College Algebra</b> Prerequisite: By placement examination.	3.0- 3.0	75223	LEC	1A	MTWThF	08:00 - 08:50 am	MCNT	00211	Suntrup,B

		3.0- 3.0	75224	LEC	1B	MTWThF	08:00 - 08:50 am	CS	00203	Maples,J
				If enrolling in both Math 1140 & Math 1160, enroll in the same lettered section of both courses; e.g., a student registering for Math 1140 section A, must also register for Math 1160, section A. Final exam is scheduled Tues., Oct 23, 4:00-6:00 pm.						
				<b>See 'Notes' for Evening Exams</b>						
				<b>MOTR MATH 130: Pre-Calculus Algebra</b>						
				<b>MOTR MATH 150: Pre-Calculus</b>						
		3.0- 3.0	75225	LEC	1D	MTWThF	11:00 - 11:50 am	CSF	00G5E	Sainul Abdeen,F
				If enrolling in both Math 1140 & Math 1160, enroll in the same lettered section of both courses; e.g., a student registering for Math 1140 section A, must also register for Math 1160, section A. Final exam is scheduled Tues., Oct 23, 4:00-6:00 pm.						
				<b>See 'Notes' for Evening Exams</b>						
				<b>MOTR MATH 130: Pre-Calculus Algebra</b>						
				<b>MOTR MATH 150: Pre-Calculus</b>						
		3.0- 3.0	75226	LEC	1E	MTWThF	11:00 - 11:50 am	CS	00203	Maples,J
				If enrolling in both Math 1140 & Math 1160, enroll in the same lettered section of both courses; e.g., a student registering for Math 1140 section A, must also register for Math 1160, section A. Final exam is scheduled Tues., Oct 23, 4:00-6:00 pm.						
				<b>See 'Notes' for Evening Exams</b>						
				<b>MOTR MATH 130: Pre-Calculus Algebra</b>						
				<b>MOTR MATH 150: Pre-Calculus</b>						
		3.0- 3.0	75912	LEC	1F	MTWThF	11:00 - 11:50 am	MCNT	00212	Alahakoon Mudiyanselage,R
				If enrolling in both Math 1140 & Math 1160, enroll in the same lettered section of both courses; e.g., a student registering for Math 1140 section A, must also register for Math 1160, section A. Final exam is scheduled Tues., Oct 23, 4:00-6:00 pm.						
				<b>See 'Notes' for Evening Exams</b>						
				<b>MOTR MATH 130: Pre-Calculus Algebra</b>						
				<b>MOTR MATH 150: Pre-Calculus</b>						
		3.0- 3.0	75227	LEC	1G	MTWThF	02:00 - 02:50 pm	BERTELS	00B10	Kinder,K
				If enrolling in both Math 1140 & Math 1160, enroll in the same lettered section of both courses; e.g., a student registering for Math 1140 section A, must also register for Math 1160, section A. Final exam is scheduled Tues., Oct 23, 4:00-6:00 pm.						
				<b>See 'Notes' for Evening Exams</b>						
				<b>MOTR MATH 130: Pre-Calculus Algebra</b>						
				<b>MOTR MATH 150: Pre-Calculus</b>						
1160	<b>Trigonometry</b> Prerequisite: Math 1120 or 1140 with a grade of "C" or better; or by placement exam.	2.0- 2.0	75228	LEC	1A	ARR	ARR	ARR		Suntrup,B
				Scheduled meeting times and room are same as Math 1140A.						
				Sect A-G begin Oct. 25 for students enrolling in both Math 1140 & 1160. Enroll in the same lettered sect of both courses; E.G.,4A & 6A. Sections K, L, M, N, P begin Sept. 10 for students not enrolled in Math 1140.						
				<b>See 'Notes' for Class Schedule</b>						
				<b>MOTR MATH 150: Pre-Calculus</b>						

2.0- 2.0	75229	LEC	1B	ARR	ARR	ARR			Wang,L
Scheduled meeting times and room are same as Math 1140B .									
Sect A-G begin Oct. 25 for students enrolling in both Math 1140 & 1160. Enroll in the same lettered sect of both courses; E.G.,4A & 6A. Sections K, L, M, N, P begin Sept. 10 for students not enrolled in Math 1140.									
<b>See 'Notes' for Class Schedule</b>									
<b>MOTR MATH 150: Pre-Calculus</b>									
2.0- 2.0	75230	LEC	1D	ARR	ARR	ARR			Sainul Abdeen,F
Scheduled meeting times and room are same as Math 1140D.									
Sect A-G begin Oct. 25 for students enrolling in both Math 1140 & 1160. Enroll in the same lettered sect of both courses; E.G.,4A & 6A. Sections K, L, M, N, P begin Sept. 10 for students not enrolled in Math 1140.									
<b>See 'Notes' for Class Schedule</b>									
<b>MOTR MATH 150: Pre-Calculus</b>									
2.0- 2.0	78199	LEC	1E	ARR	ARR	ARR			Wang,L
Scheduled meeting times and room are same as Math 1140E.									
Sect A-G begin Oct. 25 for students enrolling in both Math 1140 & 1160. Enroll in the same lettered sect of both courses; E.G.,4A & 6A. Sections K, L, M, N, P begin Sept. 10 for students not enrolled in Math 1140.									
<b>See 'Notes' for Class Schedule</b>									
<b>MOTR MATH 150: Pre-Calculus</b>									
2.0- 2.0	75913	LEC	1F	ARR	ARR	ARR			Alahakoon Mudiyanselage,R
Scheduled meeting times and room are same as Math 1140F.									
Sect A-G begin Oct. 25 for students enrolling in both Math 1140 & 1160. Enroll in the same lettered sect of both courses; E.G.,4A & 6A. Sections K, L, M, N, P begin Sept. 10 for students not enrolled in Math 1140.									
<b>See 'Notes' for Class Schedule</b>									
<b>MOTR MATH 150: Pre-Calculus</b>									
2.0- 2.0	75232	LEC	1G	ARR	ARR	ARR			Kinder,K
Scheduled meeting times and room are same as Math 1140G.									
Sect A-G begin Oct. 25 for students enrolling in both Math 1140 & 1160. Enroll in the same lettered sect of both courses; E.G.,4A & 6A. Sections K, L, M, N, P begin Sept. 10 for students not enrolled in Math 1140.									
<b>See 'Notes' for Class Schedule</b>									
<b>MOTR MATH 150: Pre-Calculus</b>									
2.0- 2.0	75233	LEC	1K	MWF	08:00 - 08:50 am	MCNT	00212		
By placement exam. Sections K, L, M, N, and P begin Sept. 10 and are for students not enrolled in Math 1140. Final exam in Math 1160 K, L, M, N, and P Thur., Nov. 15, 4:00-6:00 pm.									
Sect A-G begin Oct. 25 for students enrolling in both Math 1140 & 1160. Enroll in the same lettered sect of both courses; E.G.,4A & 6A. Sections K, L, M, N, P begin Sept. 10 for students not enrolled in Math 1140.									
<b>See 'Notes' for Class Schedule</b>									
<b>See 'Notes' for Evening Exams</b>									
<b>MOTR MATH 150: Pre-Calculus</b>									

		2.0- 2.0	75234	LEC	1L	MWF	01:00 - 01:50 pm	BCH	00314	
				By placement exam. Sections K, L, M, N, and P begin Sept. 10 and are for students not enrolled in Math 1140. Final exam in Math 1160 K, L, M, N, and P Thur., Nov. 15, 4:00-6:00 pm.						
				<b>See 'Notes' for Class Schedule</b>						
				<b>See 'Notes' for Evening Exams</b>						
				<b>MOTR MATH 150: Pre-Calculus</b>						
		2.0- 2.0	75900	LEC	1M	MWF	02:00 - 02:50 pm	MCNT	00204	Runnion,P
				By placement exam. Sections K, L, M, N, and P begin Sept. 10 and are for students not enrolled in Math 1140. Final exam in Math 1160 K, L, M, N, and P Thur., Nov. 15, 4:00-6:00 pm.						
				<b>See 'Notes' for Class Schedule</b>						
				<b>See 'Notes' for Evening Exams</b>						
				<b>MOTR MATH 150: Pre-Calculus</b>						
		2.0- 2.0	76560	LEC	1N	MWF	01:00 - 01:50 pm	FUL	00227	
				By placement exam. Sections K, L, M, N, and P begin Sept. 10 and are for students not enrolled in Math 1140. Final exam in Math 1160 K, L, M, N, and P Thur., Nov. 15, 4:00-6:00 pm.						
				<b>See 'Notes' for Class Schedule</b>						
				<b>See 'Notes' for Evening Exams</b>						
				<b>MOTR MATH 150: Pre-Calculus</b>						
1212	<b>Business Calculus</b>	2.0- 2.0	76600	LEC	1P	<b>CANCELLED</b>				
	Prerequisite: A grade of "C" or better in either 1120 or Math 1140; or by placement exam.	4.0- 4.0		LEC	1A	MWF	02:00 - 02:50 pm	BCH	00314	Fitch,S
		4.0- 4.0	75236	LAB	3A1	TTh	02:00 - 02:50 pm	BCH	00314	Fitch,S
1214	<b>Calculus For Engineers I</b>	0.0- 0.0	76899	LEC	1A	MWF	09:00 - 09:50 am	TMH	00199	Abobaker,H
	Prerequisites: A grade of "C" or better in both Math 1160 and one of Math 1120 or Math 1140; or by placement exam.			All students in Math 1214 are scheduled for exams at 5:00pm on Tues., Sept. 11; Tues., Oct. 9; Tues., Oct. 30; and Tues., Dec. 4. Students in Math 1214 must enroll in a lab first and then lecture.						
				<b>See 'Notes' for Evening Exams</b>						
		0.0- 0.0	76900	LEC	1B	MWF	10:00 - 10:50 am	TMH	00199	Fitch,S
				All students in Math 1214 are scheduled for exams at 5:00pm on Tues., Sept. 11; Tues., Oct. 9; Tues., Oct. 30; and Tues., Dec. 4. Students in Math 1214 must enroll in a lab first and then lecture.						
				<b>See 'Notes' for Evening Exams</b>						
		0.0- 0.0	76901	LEC	1C	MWF	11:00 - 11:50 am	CASTL	LEACH	Runnion,P
				All students in Math 1214 are scheduled for exams at 5:00pm on Tues., Sept. 11; Tues., Oct. 9; Tues., Oct. 30; and Tues., Dec. 4. Students in Math 1214 must enroll in a lab first and then lecture.						
				<b>See 'Notes' for Evening Exams</b>						
		0.0- 0.0	77070	LEC	1D	MWF	12:00 - 12:50 pm	BCH	00125	Abobaker,H
				All students in Math 1214 are scheduled for exams at 5:00pm on Tues., Sept. 11; Tues., Oct. 9; Tues., Oct. 30; and Tues., Dec. 4. Students in Math 1214 must enroll in a lab first and then lecture.						
				<b>See 'Notes' for Evening Exams</b>						
		4.0- 4.0	76902	LAB	3A	T	08:00 - 09:15 am	ROLLA	000G5	
				<b>See 'Notes' for Evening Exams</b>						
		4.0- 4.0	76903	LAB	3B	T	09:30 - 10:45 am	ROLLA	000G5	
				<b>See 'Notes' for Evening Exams</b>						
		4.0- 4.0	76904	LAB	3C	T	09:30 - 10:45 am	CS	00204	
				<b>See 'Notes' for Evening Exams</b>						
		4.0- 4.0	76905	LAB	3D	T	11:00 - 12:15 pm	EECH	00112	
				<b>See 'Notes' for Evening Exams</b>						

	4.0- 4.0	76906	LAB	3E	T	12:30 - 01:45 pm	EECH	00104		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	76907	LAB	3F	T	12:30 - 01:45 pm	CS	00202		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	76908	LAB	3G	T	02:00 - 03:15 pm	EECH	00101		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	76909	LAB	3H	T	02:00 - 03:15 pm	ROLLA	000G5		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	76910	LAB	3J	Th	08:00 - 09:15 am	ROLLA	000G5		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	76911	LAB	3K	Th	09:30 - 10:45 am	ROLLA	000G5		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	76912	LAB	3L	Th	09:30 - 10:45 am	CS	00204		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	76913	LAB	3M	Th	11:00 - 12:15 pm	EECH	00112		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	76914	LAB	3N	Th	12:30 - 01:45 pm	EECH	00104		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	76915	LAB	3P	Th	03:30 - 04:45 pm	BCH	00101		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	76916	LAB	3Q	Th	02:00 - 03:15 pm	EECH	00101		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	76917	LAB	3R	Th	02:00 - 03:15 pm	ROLLA	000G5		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	77071	LAB	3T	T	06:00 - 07:15 pm	BCH	00216		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	77072	LAB	3U	T	07:30 - 08:45 pm	BCH	00216		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	77073	LAB	3V	Th	06:00 - 07:15 pm	BCH	00216		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	77074	LAB	3W	Th	07:30 - 08:45 pm	BCH	00216		
			<b>See 'Notes' for Evening Exams</b>							
1215	<b>Calculus For Engineers II</b>	0.0- 0.0	77170	LEC	1A	MWF	09:00 - 09:50 am	BCH	00120	Ong,V
	Prerequisites: Math 1160 and either Math 1208 or Math 1214 both with a grade of "C" or better; or by placement exam.									
				All students in Math 1215 are scheduled for exams at 5:00 pm on Thur., Sept. 6, Thur., Sept 27, Oct. 25 and Thur., Nov. 29. Students in Math 1215 must enroll in a lab first then a lecture.						
				<b>See 'Notes' for Evening Exams</b>						
	0.0- 0.0	77171	LEC	1B	MWF	10:00 - 10:50 am	BCH	00125	Kinder,K	
				All students in Math 1215 are scheduled for exams at 5:00 pm on Thur., Sept. 6, Thur., Sept 27, Oct. 25 and Thur., Nov. 29. Students in Math 1215 must enroll in a lab first then a lecture.						
				<b>See 'Notes' for Evening Exams</b>						
	0.0- 0.0	77172	LEC	1C	MWF	01:00 - 01:50 pm	BCH	00125	Charatonik,W	
				All students in Math 1215 are scheduled for exams at 5:00 pm on Thur., Sept. 6, Thur., Sept 27, Oct. 25 and Thur., Nov. 29. Students in Math 1215 must enroll in a lab first then a lecture.						
				<b>See 'Notes' for Evening Exams</b>						
	0.0- 0.0	77173	LEC	1D	MWF	02:00 - 02:50 pm	SHNK	000G3	Ong,V	
				All students in Math 1215 are scheduled for exams at 5:00 pm on Thur., Sept. 6, Thur., Sept 27, Oct. 25 and Thur., Nov. 29. Students in Math 1215 must enroll in a lab first then a lecture.						
				<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	77174	LAB	3A	T	08:00 - 09:15 am	CS	00205		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	77175	LAB	3B	T	09:30 - 10:45 am	CS	00205		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	77176	LAB	3C	T	11:00 - 12:15 pm	CS	00205		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	77177	LAB	3D	T	12:30 - 01:45 pm	CS	00205		
			<b>See 'Notes' for Evening Exams</b>							
	4.0- 4.0	77178	LAB	3E	T	02:00 - 03:15 pm	EECH	00103		
			<b>See 'Notes' for Evening Exams</b>							



CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
	4.0-4.0	77179	LAB	3F	T	03:30 - 04:45 pm	CS	00205	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77180	LAB	3G	T	06:00 - 07:15 pm	CS	00205	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77181	LAB	3H	T	07:30 - 08:45 pm	CS	00205	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77182	LAB	3J	Th	08:00 - 09:15 am	CS	00205	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77183	LAB	3K	Th	09:30 - 10:45 am	CS	00205	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77184	LAB	3L	Th	11:00 - 12:15 pm	CS	00205	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77185	LAB	3M	Th	12:30 - 01:45 pm	CS	00205	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77186	LAB	3N	Th	02:00 - 03:15 pm	EECH	00103	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77187	LAB	3P	Th	12:30 - 01:45 pm	CS	00203	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77188	LAB	3Q	Th	06:00 - 07:15 pm	CS	00205	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77189	LAB	3R	Th	07:30 - 08:45 pm	CS	00205	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77190	LAB	3T	T	02:00 - 03:15 pm	EECH	00112	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77191	LAB	3U	T	03:30 - 04:45 pm	BCH	00101	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77192	LAB	3V	Th	02:00 - 03:15 pm	EECH	00112	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77193	LAB	3W	Th	02:00 - 03:15 pm	CS	00204	
									<b>See 'Notes' for Evening Exams</b>
2222	0.0-0.0	77194	LEC	1A	MWF	11:00 - 11:50 am	BCH	00125	Grow,D
									All students in Math 2222 are scheduled for exams at 5:00pm on Mon., Sept. 17; Mon., Oct. 15; Mon., Nov. 5, and Mon., Dec. 3. Students in Math 2222 must enroll in a lab first then a lecture.
									<b>See 'Notes' for Evening Exams</b>
	0.0-0.0	77195	LEC	1B	MWF	12:00 - 12:50 pm	BERTELS	00B10	Bohner,M
									All students in Math 2222 are scheduled for exams at 5:00pm on Mon., Sept. 17; Mon., Oct. 15; Mon., Nov. 5, and Mon., Dec. 3. Students in Math 2222 must enroll in a lab first then a lecture.
									<b>See 'Notes' for Evening Exams</b>
	0.0-0.0	77196	LEC	1C	MWF	01:00 - 01:50 pm	EECH	00G31	Brigham,R
									All students in Math 2222 are scheduled for exams at 5:00pm on Mon., Sept. 17; Mon., Oct. 15; Mon., Nov. 5, and Mon., Dec. 3. Students in Math 2222 must enroll in a lab first then a lecture.
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77197	LAB	3A	T	08:00 - 09:15 am	CSF	00G5D	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77198	LAB	3B	T	09:30 - 10:45 am	CSF	00G5E	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77199	LAB	3C	T	11:00 - 12:15 pm	CSF	00G5D	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77200	LAB	3D	T	12:30 - 01:45 pm	CSF	00G5E	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77201	LAB	3E	T	02:00 - 03:15 pm	CSF	00G5D	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77202	LAB	3F	T	03:30 - 04:45 pm	CSF	00G5D	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77203	LAB	3G	T	06:00 - 07:15 pm	CSF	00G5D	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77204	LAB	3H	T	07:30 - 08:45 pm	CSF	00G5D	
									<b>See 'Notes' for Evening Exams</b>
	4.0-4.0	77205	LAB	3J	Th	08:00 - 09:15 am	CSF	00G5D	
									<b>See 'Notes' for Evening Exams</b>

		4.0- 4.0	77206	LAB	3K	Th	09:30 - 10:45 am	CSF	00G5E	
				<b>See 'Notes' for Evening Exams</b>						
		4.0- 4.0	77207	LAB	3L	Th	11:00 - 12:15 pm	CSF	00G5D	
				<b>See 'Notes' for Evening Exams</b>						
		4.0- 4.0	77208	LAB	3M	Th	12:30 - 01:45 pm	CSF	00G5E	
				<b>See 'Notes' for Evening Exams</b>						
		4.0- 4.0	77209	LAB	3N	Th	02:00 - 03:15 pm	CSF	00G5D	
				<b>See 'Notes' for Evening Exams</b>						
		4.0- 4.0	77210	LAB	3P	Th	03:30 - 04:45 pm	CSF	00G5D	
				<b>See 'Notes' for Evening Exams</b>						
		4.0- 4.0	77211	LAB	3Q	Th	06:00 - 07:15 pm	CSF	00G5D	
				<b>See 'Notes' for Evening Exams</b>						
		4.0- 4.0	77212	LAB	3R	Th	07:30 - 08:45 pm	CSF	00G5D	
				<b>See 'Notes' for Evening Exams</b>						
3108	<b>Linear Algebra I</b> Prerequisite: Math 1215 or 1221 or 2222 with a grade of "C" or better.	3.0- 3.0	75242	LEC	1A	MWF	08:00 - 08:50 am	ROLLA	000G5	Murphy,J
		3.0- 3.0	75915	LEC	1B	MWF	09:00 - 09:50 am	CSF	00G5E	Insall,E
		3.0- 3.0	75916	LEC	1C	MWF	01:00 - 01:50 pm	PHYS	00104	Runnion,P
		3.0- 3.0	75243	LEC	1D	MWF	02:00 - 02:50 pm	MCNT	00206	Brigham,R
3109	<b>Foundations Of Mathematics</b> Prerequisite: Math 1215 or 1221 with a grade of "C" or better.	3.0- 3.0	75754	LEC	1A	MWF	02:00 - 02:50 pm	ROLLA	000G5	Insall,E
				<b>Communication Intensive</b>						
3304	<b>Elementary Differential Equations</b> Prerequisite: Math 2222 with a grade of "C" or better.	3.0- 3.0	75238	LEC	1A	MWF	09:00 - 09:50 am	BCH	00121	Han,D
				All students in Math 3304 are scheduled for exams at 5:00pm on Thurs., Sept. 20, Thurs., Oct. 25, and Thurs., Nov. 29.						
				<b>See 'Notes' for Evening Exams</b>						
		3.0- 3.0	75239	LEC	1B	MWF	10:00 - 10:50 am	BCH	00216	Singler,J
				All students in Math 3304 are scheduled for exams at 5:00pm on Thurs., Sept. 20, Thurs., Oct. 25, and Thurs., Nov. 29.						
				<b>See 'Notes' for Evening Exams</b>						
		3.0- 3.0	75780	LEC	1C	MWF	10:00 - 10:50 am	EECH	00103	Hu,W
				All students in Math 3304 are scheduled for exams at 5:00pm on Thurs., Sept. 20, Thurs., Oct. 25, and Thurs., Nov. 29.						
				<b>See 'Notes' for Evening Exams</b>						
		3.0- 3.0	75240	LEC	1D	MWF	11:00 - 11:50 am	BCH	00101	He,X
				All students in Math 3304 are scheduled for exams at 5:00pm on Thurs., Sept. 20, Thurs., Oct. 25, and Thurs., Nov. 29.						
				<b>See 'Notes' for Evening Exams</b>						
		3.0- 3.0	76345	LEC	1E	MWF	11:00 - 11:50 am	BCH	00314	Akin,E
				All students in Math 3304 are scheduled for exams at 5:00pm on Thurs., Sept. 20, Thurs., Oct. 25, and Thurs., Nov. 29.						
				<b>See 'Notes' for Evening Exams</b>						
		3.0- 3.0	76250	LEC	1F	MWF	01:00 - 01:50 pm	CSF	00G5E	Jiang,N
				All students in Math 3304 are scheduled for exams at 5:00pm on Thurs., Sept. 20, Thurs., Oct. 25, and Thurs., Nov. 29.						
				<b>See 'Notes' for Evening Exams</b>						
		3.0- 3.0	75241	LEC	1G	TTh	09:30 - 10:45 am	CSF	00G5D	Zhang,Y
				All students in Math 3304 are scheduled for exams at 5:00pm on Thurs., Sept. 20, Thurs., Oct. 25, and Thurs., Nov. 29.						
				<b>See 'Notes' for Evening Exams</b>						
		3.0- 3.0	75914	LEC	1H	TTh	11:00 - 12:15 pm	ROLLA	000G5	Clark,S
				All students in Math 3304 are scheduled for exams at 5:00pm on Thurs., Sept. 20, Thurs., Oct. 25, and Thurs., Nov. 29.						
				<b>See 'Notes' for Evening Exams</b>						
		3.0- 3.0	76561	LEC	1J	MWF	11:00 - 11:50 am	BCH	00216	Singler,J
				All students in Math 3304 are scheduled for exams at 5:00pm on Thurs., Sept. 20, Thurs., Oct. 25, and Thurs., Nov. 29.						
				<b>See 'Notes' for Evening Exams</b>						

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR	
3921 <b>Teaching Math in Elementary and Middle Schools</b> Prerequisite: Math 1120 or Math 1140. (Co-listed with Educ 3221)	3.0- 3.0	77884	LEC	1A	<b>CANCELLED</b>					
3922 <b>Geometric Concepts for Elementary Teachers</b> Prerequisites: Math 1120 or Math 1140. (Co-listed with Educ 3222)	3.0- 3.0	76839	LEC	1A	TTh	11:00 - 12:15 pm	EMGT	00235	Welch,M	
4000 <b>Special Problems</b>	0.0- 6.0	75245	IND	6A	ARR	ARR	ARR		He,X	
	0.0- 6.0	75244	IND	6B	ARR	ARR	ARR		Insall,E	
	0.0- 6.0	76535	IND	6C	ARR	ARR	ARR		Roe,R	
4099 <b>Undergraduate Research</b>	0.0- 6.0	75951	IND	6A	ARR	ARR	ARR		Charatonik,W	
	0.0- 6.0	75251	IND	6B	ARR	ARR	ARR		Insall,E	
	0.0- 6.0	75868	IND	6C	ARR	ARR	ARR		Roe,R	
4209 <b>Advanced Calculus I</b> Prerequisite: Math 2222 and Math 3109, or a 4000-level or higher mathematics course, or graduate standing.	3.0- 3.0	75248	LEC	1A	MWF	02:00 - 02:50 pm	EECH	00111	Grow,D	
4211 <b>Advanced Calculus II</b> Prerequisite: Math 4209.	3.0- 3.0	76201	LEC	1A	MWF	02:00 - 02:50 pm	MCNT	00210	Charatonik,W	
5000 <b>Special Problems</b>	0.0- 6.0	77785	IND	6A	ARR	ARR	ARR		Insall,E	
5040 <b>Oral Examination</b> Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate office permission required.	0.0- 0.0	75264	IND	6A	ARR	ARR	ARR		Clark,S	
5105 <b>Modern Algebra I</b> Prerequisite: Math 3109 or graduate standing; preceded or accompanied by Math 3108.	3.0- 3.0	75247	LEC	1A	TTh	11:00 - 12:15 pm	ROLLA	000G4	Chen-Murphy,X	
5302 <b>Intermediate Differential Equations</b> Prerequisite: Math 3304 or Math 3329.	3.0- 3.0	75246	LEC	1A	MWF	09:00 - 09:50 am	IDE	000G4A	Akin,E	
5325 <b>Partial Differential Equations</b> Prerequisite: Math 3304 with a grade of "C" or better.	3.0- 3.0	75249	LEC	1A	MWF	10:00 - 10:50 am	ROLLA	000G5	Jiang,N	
5351 <b>Introduction To Complex Variables</b> Prerequisite: Math 3304.	3.0- 3.0	75250	LEC	1A	MWF	12:00 - 12:50 pm	ROLLA	000G4	Hu,W	
5603 <b>Methods of Applied Mathematics</b> Prerequisites: Math 3304 or 3329 with a grade of "C" or better, programming competency.	3.0- 3.0	78184	LEC	1A	MWF	01:00 - 01:50 pm	ROLLA	000G4	Han,D	
5604 <b>Introduction to Numerical Methods for Differential Equations</b> Prerequisites: MATH 3304 and programming competency (preferably Matlab).	3.0- 3.0	77567	LEC	1A	TTh	11:00 - 12:15 pm	H-SS	00203	Zhang,Y	
5737 <b>Financial Mathematics</b> Prerequisites: Math 1215 or Math 1221, Econ 2100 or Econ 2200 or Finance 2150 or Finance 5160, Stat 3111 or Stat 3113 or Stat 3115 or Stat 3117 or Stat 5643. (Co-listed with Econ 5337)	3.0- 3.0	78246	LEC	1A	MWF	01:00 - 01:50 pm	ROLLA	000G5	Bohner,M	
6000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75254	IND	6A	ARR	ARR	ARR		Akin,E	
	0.0- 6.0	75253	IND	6B	ARR	ARR	ARR		Bohner,M	
	0.0- 6.0	75252	IND	6C	ARR	ARR	ARR		Grow,D	
	0.0- 6.0	76225	IND	6D	ARR	ARR	ARR		Insall,E	
6010 <b>Graduate Seminar</b> Prerequisite: Graduate standing.	1.0- 3.0	75899	RSD	2A	ARR	ARR	ARR		Bohner,M	
	1.0- 3.0	75255	RSD	2B	ARR	ARR	ARR		He,X	
	1.0- 3.0	75256	RSD	2C	W	04:00 - 06:00 pm	ROLLA	000G4	Samaranayake,V	
6050 <b>Continuous Registration</b> Doctoral students only. Graduate Office permission required.	1.0- 1.0	75265	IND	6A	ARR	ARR	ARR		Clark,S	
6099 <b>Research</b> Prerequisite: Consent of instructor required.	0.0-15.0	75257	IND	6A	ARR	ARR	ARR		Akin,E	
	0.0-15.0	75262	IND	6B	ARR	ARR	ARR		Bohner,M	
	0.0-15.0	75258	IND	6C	ARR	ARR	ARR		Charatonik,W	
	0.0-15.0	75259	IND	6D	ARR	ARR	ARR		Grow,D	
	0.0-15.0	75260	IND	6E	ARR	ARR	ARR		He,X	

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
	0.0-15.0	75261	IND	6F	ARR	ARR	ARR		Insall,E
	0.0-15.0	75769	IND	6G	ARR	ARR	ARR		Jiang,N
	0.0-15.0	75263	IND	6H	ARR	ARR	ARR		Le,V
	0.0-15.0	75902	IND	6J	ARR	ARR	ARR		Morgan,I
	0.0-15.0	76154	IND	6K	ARR	ARR	ARR		Roe,R
	0.0-15.0	76355	IND	6L	ARR	ARR	ARR		Singler,J
	0.0-15.0	76802	IND	6M	ARR	ARR	ARR		Zhang,Y
6108 <b>Applied Matrix Theory</b> Prerequisites: Math 3103, 3108, or 5302.	3.0- 3.0	78185	LEC	1A	TTh	02:00 - 03:15 pm	H-SS	00204	Chen-Murphy,X
6330 <b>Theory Of Differential Equations I</b> Prerequisite: Math 5302.	3.0- 3.0	78186	LEC	1A	<b>CANCELLED</b>				
6461 <b>Harmonic Analysis I</b> Prerequisites: Math 5215 and Math 5351.	3.0- 3.0	78183	LEC	1A	MWF	12:00 - 12:50 pm	BCH	00215	Murphy,J
6601 <b>Numerical Analysis</b> Prerequisites: Any 4000 or higher level MATH course, or any instructor approved 4000 or higher level course from another discipline with a significant computational component.	3.0- 3.0	76938	LEC	1A	<b>CANCELLED</b>				
6602 <b>Mathematical Foundation of Finite Element Methods</b> Prerequisites: Any 4000 or higher level Mathematics course, or any instructor approved 4000 or higher level course from another discipline with a significant computational component.	3.0- 3.0	78187	LEC	1A	MWF	09:00 - 09:50 am	H-SS	00102	He,X
					<b>UM Shared Course-Primary</b>				
6665 <b>Mathematical Programming</b> Prerequisites: Stat 3113 or equivalent and (Eng Mgt 5414 or Math 3103 or Math 3108). (Co-listed with Eng Mgt 6412)	3.0- 3.0	77903	LEC	1A	<b>CANCELLED</b>				

## Mechanical Engineering

1720 <b>Introduction to Engineering Design</b>	0.0- 0.0	76165	LEC	1A	M	08:00 - 08:50 am	EECH	00G31	Schmidt,J
									Students must enroll in a lecture and a lab. <b>See 'Notes'-Additional Meeting</b>
	0.0- 0.0	76166	LEC	1B	M	02:00 - 02:50 pm	EECH	00G31	Schmidt,J
									Students must enroll in a lecture and a lab. <b>See 'Notes'-Additional Meeting</b>
	0.0- 0.0	76167	LEC	1C	T	08:00 - 08:50 am	BCH	00125	Schmidt,J
									Students must enroll in a lecture and a lab. <b>See 'Notes'-Additional Meeting</b>
	0.0- 0.0	76168	LEC	1D	T	02:00 - 02:50 pm	BCH	00125	Schmidt,J
									Students must enroll in a lecture and a lab. <b>See 'Notes'-Additional Meeting</b>
	3.0- 3.0	76301	LAB	3A	W	08:00 - 08:50 am	CH	00105	Schmidt,J
									Additional lab time for software coverage will be by independent study. <b>See 'Notes'-Additional Meeting</b>
	3.0- 3.0	76169	LAB	3B	W	09:00 - 09:50 am	CH	00105	Schmidt,J
									Additional lab time for software coverage will be by independent study. <b>See 'Notes'-Additional Meeting</b>
	3.0- 3.0	76170	LAB	3C	W	10:00 - 10:50 am	CH	00105	Schmidt,J
									Additional lab time for software coverage will be by independent study. <b>See 'Notes'-Additional Meeting</b>
	3.0- 3.0	76171	LAB	3D	W	11:00 - 11:50 am	CH	00105	Schmidt,J
									Additional lab time for software coverage will be by independent study. <b>See 'Notes'-Additional Meeting</b>
	3.0- 3.0	76172	LAB	3E	W	01:00 - 01:50 pm	CH	00105	Schmidt,J
									Additional lab time for software coverage will be by independent study. <b>See 'Notes'-Additional Meeting</b>

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR	
	3.0- 3.0	76173	LAB	3F	W	02:00 - 02:50 pm	CH	00105	Schmidt,J	
									Additional lab time for software coverage will be by independent study.	
									<b>See 'Notes'-Additional Meeting</b>	
	3.0- 3.0	76174	LAB	3H	F	09:00 - 09:50 am	CH	00105	Schmidt,J	
									Additional lab time for software coverage will be by independent study.	
									<b>See 'Notes'-Additional Meeting</b>	
	3.0- 3.0	76175	LAB	3J	F	10:00 - 10:50 am	CH	00105	Schmidt,J	
									Additional lab time for software coverage will be by independent study.	
									<b>See 'Notes'-Additional Meeting</b>	
	3.0- 3.0	76176	LAB	3K	F	11:00 - 11:50 am	CH	00105	Schmidt,J	
									Additional lab time for software coverage will be by independent study.	
									<b>See 'Notes'-Additional Meeting</b>	
	3.0- 3.0	76177	LAB	3L	F	01:00 - 01:50 pm	CH	00105	Schmidt,J	
									Additional lab time for software coverage will be by independent study.	
									<b>See 'Notes'-Additional Meeting</b>	
	3.0- 3.0	76178	LAB	3M	F	02:00 - 02:50 pm	CH	00105	Schmidt,J	
									Additional lab time for software coverage will be by independent study.	
									<b>See 'Notes'-Additional Meeting</b>	
2340	<b>Statics and Dynamics</b>	3.0- 3.0	74615	LEC	1A	MWF	03:00 - 03:50 pm	CS	00209	Buckholtz,K
	Prerequisites: A grade of "C" or better in Physics 1135 or Physics 1111; preceded or accompanied by Math 2222.									
2350	<b>Engineering Mechanics-Dynamics</b>	2.0- 2.0	74616	LEC	1A	TTh	09:30 - 10:20 am	TMH	00199	Sadeghizadeh,Z
	Prerequisites: A grade of "C" or better in each of Civ Eng 2200 and Math 2222.									
2360	<b>Dynamics</b>	3.0- 3.0	75741	LEC	1A	MWF	08:00 - 08:50 am	TMH	00254	Du,X
	Prerequisite: Grade of "C" or better in each of Civ Eng 2200, Math 2222.									
		3.0- 3.0	75742	LEC	1B	MWF	09:00 - 09:50 am	TMH	00254	Du,X
		3.0- 3.0	77243	LEC	1C	TTh	09:30 - 10:45 am	BERTELS	00112B	
				LEC	1C	TTh	09:30 - 10:45 am	BERTELS	00112A	Hutcheson,R
	(Co-listed with Aero Eng 2360)									
2519	<b>Thermodynamics</b>	3.0- 3.0	76405	LEC	1A	MWF	01:00 - 01:50 pm	TMH	00254	Meeks,W
	Prerequisites: A grade of "C" or better in each of Comp Sci 1570 or Comp Sci 1970 or Comp Sci 1971 or Comp Sci 1972, Math 1214 (or Math 1208), Math 1215 (or Math 1221), Math 2222, and Physics 1135.									
		3.0- 3.0	75281	LEC	1B	MWF	09:00 - 09:50 am	TMH	00250	Crosbie,A
		3.0- 3.0	75282	LEC	1C	MWF	10:00 - 10:50 am	TMH	00254	Pan,H
		3.0- 3.0	75283	LEC	1D	MWF	11:00 - 11:50 am	TMH	00295	Pan,H
2527	<b>Thermal Analysis</b>	3.0- 3.0	75286	LEC	1A	TTh	08:00 - 09:15 am	TMH	00199	Meeks,W
	Prerequisites: Math 1215 (or 1221), Physics 1135.									
2653	<b>Introduction To Manufacturing Processes</b>	3.0- 3.0		LEC	1A	TTh	11:00 - 11:50 am	TMH	00199	Schmid,K
	Prerequisite: Mech Eng 1720. Lec A is scheduled with each lab of ME 2653. Lab C will make arrangements to meet 2 hours in an afternoon for the first five weeks.									
		3.0- 3.0	75267	LAB	3A	M	01:00 - 03:30 pm	TMH	00176	Lewis,R
		3.0- 3.0	75268	LAB	3B	M	04:00 - 06:30 pm	TMH	00176	Lewis,R
		3.0- 3.0	75269	LAB	3C	Th	08:15 - 10:45 am	TMH	00176	Lewis,R
										<b>See 'Notes'-Additional Meeting</b>
		3.0- 3.0	75270	LAB	3D	T	12:00 - 02:30 pm	TMH	00176	Lewis,R
		3.0- 3.0	75271	LAB	3F	T	03:00 - 05:30 pm	TMH	00176	Lewis,R
		3.0- 3.0	75852	LAB	3G	W	01:00 - 03:30 pm	TMH	00176	Lewis,R
		3.0- 3.0	75272	LAB	3H	Th	12:00 - 02:30 pm	TMH	00176	Lewis,R
		3.0- 3.0	75877	LAB	3J	Th	03:00 - 05:30 pm	TMH	00176	Lewis,R
		3.0- 3.0	75895	LAB	3K	F	01:00 - 03:30 pm	TMH	00176	Lewis,R
2761	<b>Introduction To Design</b>	3.0- 3.0		LEC	1AA	MW	03:00 - 03:50 pm	SHNK	000G3	Hutcheson,R
	Prerequisites: IDE 1720, Mech Eng 2653, preceded or accompanied by Civ Eng 2200; a grade of "C" or better in each of Math 1214 (or 1208), Physics 1135.									
		3.0- 3.0	75274	LAB	3A	F	01:00 - 01:50 pm	ARR		Hutcheson,R
										Additional meeting time to be arranged.
										<b>See 'Notes'-Additional Meeting</b>
		3.0- 3.0	75275	LAB	3B	F	02:00 - 02:50 pm	ARR		Hutcheson,R
										Additional meeting time to be arranged.
										<b>See 'Notes'-Additional Meeting</b>
		3.0- 3.0	75975	LAB	3C	F	03:00 - 03:50 pm	ARR		Hutcheson,R
										Additional meeting time to be arranged.
										<b>See 'Notes'-Additional Meeting</b>

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
	3.0- 3.0	77081	LAB	3D	F	12:00 - 12:50 pm	ARR		Hutcheson,R
									Additional meeting time to be arranged.
									See 'Notes'-Additional Meeting
3002 <b>Cooperative Engineering Training</b>	0.0- 6.0	75276	IND	6A	ARR	ARR	ARR		Nisbett,J
3131 <b>Thermofluid Mechanics I</b>	3.0- 3.0	75287	LEC	1A	TTh	08:00 - 09:15 am	BERTELS	00112B	
Prerequisite: A grade of "C" or better in Mech Eng 2519.			LEC	1A	TTh	08:00 - 09:15 am	BERTELS	00112A	Kumar,N
	3.0- 3.0	75288	LEC	1B	TTh	11:00 - 12:15 pm	TMH	00254	Wang,C
3313 <b>Machine Dynamics</b>	3.0- 3.0	75279	LEC	1A	MWF	10:00 - 10:50 am	TMH	00295	Hutcheson,R
Prerequisites: A grade of "C" or better in each of Comp Sci 1570 or Comp Sci 1970 or Comp Sci 1971 or Comp Sci 1972, Mech Eng 2360 (or Aero Eng 2360), Math 1214 (or Math 1208), Math 1215 (or Math 1221), Math 2222, and Physics 1135.	3.0- 3.0	77341	LEC	1C	TTh	12:30 - 01:45 pm	BCH	00120	Nisbett,J
3411 <b>Modeling and Analysis of Dynamic Systems</b>	3.0- 3.0	75277	LEC	1A	MWF	08:00 - 08:50 am	TMH	00199	Kumar,N
Prerequisites: A grade of "C" or better in each of Comp Sci 1570 or Comp Sci 1970 or Comp Sci 1971 or Comp Sci 1972, Mech Eng 2360 (or Aero Eng 2360), Math 1214 (or Math 1208), Math 1215 (or Math 1221), Math 2222, Math 3304, Physics 1135, Physics 2135.	3.0- 3.0	75278	LEC	1B	MWF	10:00 - 10:50 am	CH	00104	Kumar,N
3521 <b>Applied Thermodynamics</b>	3.0- 3.0	77246	LEC	1A	TTh	08:00 - 09:15 am	TMH	00295	Drallmeier,J
Prerequisite: A grade of "C" or better in Mech Eng 2519.	3.0- 3.0	75284	LEC	1B	TTh	11:00 - 12:15 pm	TMH	00295	Koylu,U
	3.0- 3.0	78356	LEC	1C	TTh	02:00 - 03:15 pm	EMGT	00106	Sadeghizadeh,Z
									<b>Prerequisite</b>
3525 <b>Heat Transfer</b>	3.0- 3.0	76406	LEC	1A	MWF	01:00 - 01:50 pm	TMH	00199	Kinzel,E
3653 <b>Manufacturing</b>	3.0- 3.0	75296	LEC	1A	MWF	01:00 - 01:50 pm	TMH	00256	Okafor,A
Prerequisites: Mech Eng 2653, Civ Eng 2211, and a grade of "C" or better in Civ Eng 2210.	3.0- 3.0	77083	LEC	1B	TTh	02:00 - 03:15 pm	TMH	00256	Chen,L
3708 <b>Machine Design I</b>	3.0- 3.0	76798	LEC	1A	TTh	12:30 - 01:45 pm	EECH	00101	Dong,X
Prerequisites: Mech Eng 2653; accompanied or preceded by Mech Eng 2761; Met Eng 2110 or Aero Eng 3877; and a grade of "C" or better in Civ Eng 2210.	3.0- 3.0	77720	LEC	1B	TTh	09:30 - 10:45 am	H-SS	000G5	Park,J
4000 <b>Special Problems</b>	0.0- 6.0	75304	IND	6A	ARR	ARR	ARR		Hutcheson,R
	0.0- 6.0	76271	IND	6B	ARR	ARR	ARR		Nisbett,J
4099 <b>Undergraduate Research</b>	0.0- 6.0	75316	IND	6A	ARR	ARR	ARR		Bristow,D
	0.0- 6.0	75317	IND	6B	ARR	ARR	ARR		Carroll,D
	0.0- 6.0	75318	IND	6C	ARR	ARR	ARR		Chandrashekhara,K
	0.0- 6.0	75319	IND	6D	ARR	ARR	ARR		Crosbie,A
	0.0- 6.0	75320	IND	6E	ARR	ARR	ARR		Dharani,L
	0.0- 6.0	75321	IND	6F	ARR	ARR	ARR		Drallmeier,J
	0.0- 6.0	75322	IND	6G	ARR	ARR	ARR		Du,X
	0.0- 6.0	75323	IND	6H	ARR	ARR	ARR		Gao,J
	0.0- 6.0	75324	IND	6J	ARR	ARR	ARR		Homan,K
	0.0- 6.0	75325	IND	6K	ARR	ARR	ARR		Isaac,K
	0.0- 6.0	75326	IND	6L	ARR	ARR	ARR		Kinzel,E
	0.0- 6.0	75327	IND	6M	ARR	ARR	ARR		Krishnamurthy,K
	0.0- 6.0	75328	IND	6N	ARR	ARR	ARR		Landers,R
	0.0- 6.0	75329	IND	6P	ARR	ARR	ARR		Leu,M
	0.0- 6.0	75330	IND	6Q	ARR	ARR	ARR		Liou,F
	0.0- 6.0	75331	IND	6R	ARR	ARR	ARR		Midha,A
	0.0- 6.0	75332	IND	6T	ARR	ARR	ARR		Nisbett,J
	0.0- 6.0	75333	IND	6U	ARR	ARR	ARR		Okafor,A
	0.0- 6.0	75334	IND	6V	ARR	ARR	ARR		Pan,H
	0.0- 6.0	75335	IND	6W	ARR	ARR	ARR		Park,J
	0.0- 6.0	75336	IND	6X	ARR	ARR	ARR		Song,Y
	0.0- 6.0	75337	IND	6Y	ARR	ARR	ARR		Stutts,D
	0.0- 6.0	75338	IND	6Z	ARR	ARR	ARR		Tsai,H
	0.0- 6.0	75339	IND	6AA	ARR	ARR	ARR		Wang,C
	0.0- 6.0	76592	IND	6BB	ARR	ARR	ARR		Yang,X

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
4479 <b>Automatic Control Of Dynamic Systems</b> Prerequisite: A grade of "C" or better in Mech Eng 3411.	3.0- 3.0	75299	LEC	1A	MWF	01:00 - 01:50 pm	BCH	00124	Song,Y
	3.0- 3.0	77247	LEC	1B	MWF	10:00 - 10:50 am	BCH	00101	Krishnamurthy,K
	3.0- 3.0	77248	LEC	1C	MWF	11:00 - 11:50 am	IDE	00105	Krishnamurthy,K
4480 <b>Control System Laboratory</b> Prerequisites: Preceded or accompanied by Mech Eng 4479. Lectures are scheduled 4:00-4:50pm in an arranged location on Mon and Wed the first week of classes. Labs begin the second week.	1.0- 1.0	75300	LAB	3A	M	02:00 - 04:50 pm	TMH	00216	Balakrishnan,S
									Students are scheduled for one exam: Time and place to be announced. <b>See 'Notes'-Additional Meeting</b> <b>See 'Notes' for Evening Exams</b>
	1.0- 1.0	75301	LAB	3B	T	09:30 - 12:20 pm	TMH	00216	Balakrishnan,S
									Students are scheduled for one exam: Time and place to be announced. <b>See 'Notes'-Additional Meeting</b> <b>See 'Notes' for Evening Exams</b>
	1.0- 1.0	75302	LAB	3C	T	02:00 - 04:50 pm	TMH	00216	Balakrishnan,S
									Students are scheduled for one exam: Time and place to be announced. <b>See 'Notes'-Additional Meeting</b> <b>See 'Notes' for Evening Exams</b>
	1.0- 1.0	75303	LAB	3D	W	02:00 - 04:50 pm	TMH	00216	Balakrishnan,S
									Students are scheduled for one exam: Time and place to be announced. <b>See 'Notes'-Additional Meeting</b> <b>See 'Notes' for Evening Exams</b>
	1.0- 1.0	76164	LAB	3E	Th	09:30 - 12:20 pm	TMH	00216	Balakrishnan,S
									Students are scheduled for one exam: Time and place to be announced. <b>See 'Notes'-Additional Meeting</b> <b>See 'Notes' for Evening Exams</b>
1.0- 1.0	75756	LAB	3F	Th	02:00 - 04:50 pm	TMH	00216	Balakrishnan,S	
								Students are scheduled for one exam: Time and place to be announced. <b>See 'Notes'-Additional Meeting</b> <b>See 'Notes' for Evening Exams</b>	
1.0- 1.0	76540	LAB	3G	M	06:00 - 08:50 pm	TMH	00216	Balakrishnan,S	
								Students are scheduled for one exam: Time and place to be announced. <b>See 'Notes'-Additional Meeting</b> <b>See 'Notes' for Evening Exams</b>	
1.0- 1.0	76725	LAB	3H	W	06:00 - 08:50 pm	TMH	00216	Balakrishnan,S	
								Students are scheduled for one exam: Time and place to be announced. <b>See 'Notes'-Additional Meeting</b> <b>See 'Notes' for Evening Exams</b>	
4761 <b>Engineering Design</b> Prerequisites: Preceded or accompanied each of Mech Eng 3708, 3525, 3131, 4479.	3.0- 3.0		LEC	1A	T	12:30 - 01:45 pm	TMH	00199	Midha,A
	3.0- 3.0	75298	LAB	3A	Th	12:30 - 01:45 pm	TMH	00199	Midha,A
									Additional meeting time to be arranged. <b>See 'Notes'-Additional Meeting</b>
4840 <b>Mechanical Instrumentation</b>	2.0- 2.0	78290	LAB	3A	F	12:00 - 01:50 pm	TMH	00317	Cottrell,M
			LAB	3A	MW	02:00 - 02:50 pm	BCH	00125	
	2.0- 2.0	75289	LAB	3B	T	09:00 - 10:50 am	TMH	00317	
			LAB	3B	MW	02:00 - 02:50 pm	BCH	00125	Cottrell,M
	2.0- 2.0	75290	LAB	3C	T	11:00 - 12:50 pm	TMH	00317	
			LAB	3C	MW	02:00 - 02:50 pm	BCH	00125	Cottrell,M
	2.0- 2.0	75291	LAB	3D	T	01:00 - 02:50 pm	TMH	00317	
			LAB	3D	MW	02:00 - 02:50 pm	BCH	00125	Cottrell,M
	2.0- 2.0	75976	LAB	3E	MW	02:00 - 02:50 pm	BCH	00125	
			LAB	3E	W	03:00 - 04:50 pm	TMH	00317	Cottrell,M
	2.0- 2.0	77631	LAB	3F	W	12:00 - 01:50 pm	TMH	00317	
			LAB	3F	MW	02:00 - 02:50 pm	BCH	00125	Cottrell,M
	2.0- 2.0	76723	LAB	3G	Th	11:00 - 12:50 pm	TMH	00317	
			LAB	3G	MW	02:00 - 02:50 pm	BCH	00125	Cottrell,M
	2.0- 2.0	75977	LAB	3H	Th	01:00 - 02:50 pm	TMH	00317	Cottrell,M
		LAB	3H	MW	02:00 - 02:50 pm	BCH	00125		
2.0- 2.0	76017	LAB	3J	MW	02:00 - 02:50 pm	BCH	00125		
		LAB	3J	T	03:00 - 04:50 pm	TMH	00317	Cottrell,M	
2.0- 2.0	77632	LAB	3K	Th	09:00 - 10:50 am	TMH	00317		

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR	
4842 <b>Mechanical Engineering Systems</b> Prerequisites: Mech Eng 4840, 3521, 3131, 3525, 3313.			LAB	3K	MW	02:00 - 02:50 pm	BCH	00125	Cottrell,M Gaja,H	
	2.0- 2.0	76163	LAB	3M	MW	02:00 - 02:50 pm	BCH	00125	Cottrell,M	
			LAB	3M	Th	03:00 - 04:50 pm	TMH	00317		
	2.0- 2.0	75292	LAB	3A	T	09:00 - 10:50 am	TMH	00316		
			There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.							
			<b>See 'Notes'-Additional Meeting Communication Emphasized</b>							
			LAB	3A	W	03:00 - 03:50 pm	TMH	00199	Stutts,D	
			There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.							
			<b>See 'Notes'-Additional Meeting Communication Emphasized</b>							
	2.0- 2.0	75293	LAB	3B	M	02:00 - 03:50 pm	TMH	00316		
			There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.							
			<b>See 'Notes'-Additional Meeting Communication Emphasized</b>							
		LAB	3B	W	03:00 - 03:50 pm	TMH	00199	Stutts,D		
		There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.								
		<b>See 'Notes'-Additional Meeting Communication Emphasized</b>								
2.0- 2.0	75294	LAB	3C	T	02:00 - 03:50 pm	TMH	00316			
		There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.								
		<b>See 'Notes'-Additional Meeting Communication Emphasized</b>								
		LAB	3C	W	03:00 - 03:50 pm	TMH	00199	Stutts,D		
		There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.								
		<b>See 'Notes'-Additional Meeting Communication Emphasized</b>								
2.0- 2.0	78291	LAB	3D	W	03:00 - 03:50 pm	TMH	00199			
		<b>See 'Notes'-Additional Meeting Communication Emphasized</b>								
		LAB	3D	M	04:00 - 05:50 pm	TMH	00316	Stutts,D		
		<b>See 'Notes'-Additional Meeting Communication Emphasized</b>								
2.0- 2.0	75295	LAB	3E	Th	02:00 - 03:50 pm	TMH	00316			
		There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.								
		<b>See 'Notes'-Additional Meeting Communication Emphasized</b>								



CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
				LAB 3E	W	03:00 - 03:50 pm	TMH	00199	Stutts,D
				There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.					
				<b>See 'Notes'-Additional Meeting Communication Emphasized</b>					
	2.0- 2.0	75869		LAB 3F	Th	09:00 - 10:50 am	TMH	00316	Stutts,D
				There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.					
				<b>See 'Notes'-Additional Meeting Communication Emphasized</b>					
				LAB 3F	W	03:00 - 03:50 pm	TMH	00199	
				There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.					
				<b>See 'Notes'-Additional Meeting Communication Emphasized</b>					
	2.0- 2.0	76119		LAB 3G	W	01:00 - 02:50 pm	TMH	00316	Stutts,D
				There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.					
				<b>See 'Notes'-Additional Meeting Communication Emphasized</b>					
				LAB 3G	W	03:00 - 03:50 pm	TMH	00199	
				There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.					
				<b>See 'Notes'-Additional Meeting Communication Emphasized</b>					
	2.0- 2.0	76724		LAB 3H	F	01:00 - 02:50 pm	TMH	00316	Stutts,D
				There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.					
				<b>See 'Notes'-Additional Meeting Communication Emphasized</b>					
				LAB 3H	W	03:00 - 03:50 pm	TMH	00199	
				There are lectures on Wednesdays and Fridays during the first three weeks of the semester, and continue on specified Wednesdays thereafter. Lab meetings begin during the second week of the semester.					
				<b>See 'Notes'-Additional Meeting Communication Emphasized</b>					
5000	<b>Special Problems</b>	0.0- 6.0	75340	IND 6A	ARR	ARR	ARR		Chandrashekhara,K
		0.0- 6.0	75341	IND 6B	ARR	ARR	ARR		Dharani,L
		0.0- 6.0	75342	IND 6C	ARR	ARR	ARR		Leu,M
		0.0- 6.0	75343	IND 6D	ARR	ARR	ARR		Liou,F
		0.0- 6.0	75344	IND 6E	ARR	ARR	ARR		Midha,A
5131	<b>Intermediate Thermofluid Mechanics</b> Prerequisite: Mech Eng 3131 or Aero Eng 3131. (Co-listed with Aero Eng 5131)	3.0- 3.0	76484	LEC 1A	MWF	03:00 - 03:50 pm	TMH	00260	Homan,K

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
5139 <b>Computational Fluid Dynamics</b> Prerequisites: Comp Sci 1570 or 1970 or 1971; one course in fluid mechanics. (Co-listed with Aero Eng 5139)	3.0- 3.0	75308	LEC	1A	MWF	01:00 - 01:50 pm	FUL	00107A	Isaac,K
5212 <b>Introduction to Finite Element Analysis</b> Prerequisite: Mech Eng 3708 or Aero Eng 4253 or consent of instructor for majors that do not require either of these courses, or graduate standing. (Co-listed with Aero Eng 5212)	3.0- 3.0	75306	LEC	1A	TTh	11:00 - 12:15 pm	BCH	00213	Chandrashekhara,K
5238 <b>Fatigue Analysis</b> Prerequisite: Civ Eng 2210. (Co-listed with Aero Eng 5238)	3.0- 3.0	78109	LEC	1A	TTh	02:00 - 03:15 pm	BCH	00213	Dharani,L
5307 <b>Vibrations I</b> Prerequisites: Mech Eng 3411 and 3313, or Aero Eng 3613 and Math 3304. (Co-listed with Aero Eng 5307)	3.0- 3.0	76483	LEC	1A	TTh	02:00 - 03:15 pm	TMH	00250	Stutts,D
5313 <b>Intermediate Dynamics Of Mechanical And Aerospace Systems</b> Prerequisite: Mech Eng 3313 or Aero Eng 3613. (Co-listed with Aero Eng 5313)	3.0- 3.0	78224	LEC	1A	TTh	03:30 - 04:45 pm	BCH	00317	DeMars,K
5420 <b>Signal Processing for Instrumentation and Control</b> Prerequisites: Math 3304; Mech Eng 3411 or permission of instructor for non-Mech Eng majors.	3.0- 3.0	77988	LEC	1A	<b>CANCELLED</b>				
5481 <b>Mechanical And Aerospace Control Systems</b> Prerequisite: Mech Eng 4479 or Aero Eng 3361. (Co-listed with Aero Eng 5481)	3.0- 3.0	75315	LEC	1A	TTh	03:30 - 04:45 pm	BCH	00121	Balakrishnan,S
5525 <b>Intermediate Heat Transfer</b> Prerequisite: Mech Eng 3525. (Co-listed with Aero Eng 5525)	3.0- 3.0	76862	LEC	1A	MWF	11:00 - 11:50 am	TMH	00254	Crosbie,A
5527 <b>Combustion Processes</b> Prerequisite: Mech Eng 3521. (Co-listed with Aero Eng 5527)	3.0- 3.0	76407	LEC	1A	TTh	09:30 - 10:45 am	BERTELS	00B12A	Koylu,U
5570 <b>Plasma Physics I</b> Prerequisite: Aero Eng 3131 or Mech Eng 3131 or Physics 3211 or Nuc Eng 3221 or Elec Eng 3600. (Co-listed with Aero Eng 5570, Nuc Eng 4370, Physics 4543)	3.0- 3.0	77979	LEC	1A	TTh	08:00 - 09:15 am	TMH	00249	Han,D
5571 <b>Environmental Controls</b> Prerequisites: Mech Eng 3521 and accompanied or preceded by Mech Eng 3525; or Mech Eng 2527 and Civ Eng 3330.	3.0- 3.0	78288	LEC	1A	M	07:00 - 09:30 pm	BERTELS	00B12A	Williams JR,G
5653 <b>Computer Numerical Control of Manufacturing Processes</b> Prerequisites: Preceded or accompanied by Mech Eng 3653.	3.0- 3.0 3.0- 3.0 3.0- 3.0	 75310 75311	LEC LAB LAB	1A 3A 3B	MW W F	11:00 - 11:50 am 01:00 - 02:50 pm 10:00 - 11:50 am	TMH TMH TMH	00256 00197 00197	Okafor,A Okafor,A Okafor,A
5708 <b>Rapid Product Design And Optimization</b> Prerequisite: Mech Eng 3708.	3.0- 3.0	75305	LEC	1A	TTh	09:30 - 10:45 am	TMH	00260	Liou,F
5715 <b>Concurrent Engineering</b> Prerequisites: Mech Eng 3313 or Aero Eng 3131, and Civ Eng 2210. (Co-listed with Aero Eng 5715)	3.0- 3.0	75674	LEC	1A	Th	07:00 - 09:30 pm	BERTELS	00B12B	Appelman,H
5763 <b>Computer Aided Design: Theory and Practice</b> Prerequisites: Comp Sci 1570 or Comp Sci 1970 or Comp Sci 1971, Mech Eng 2761, Math 2222, at least Junior standing.	3.0- 3.0 3.0- 3.0 3.0- 3.0	 75313 75314	LEC LAB LAB	1A 3A 3A 3B	MW M M W	11:00 - 11:50 am 01:00 - 01:50 pm 02:00 - 02:50 pm 01:00 - 02:50 pm	TMH BCH TMH TMH	00260 00213 00200 00200	Leu,M Leu,M Leu,M Leu,M
6000 <b>Special Problems</b>	0.0- 6.0 0.0- 6.0	77056 77355	IND IND	6A 6B	ARR ARR	ARR ARR	ARR ARR		Balakrishnan,S Dharani,L
6001 <b>Special Topics</b> Prerequisites: Mech Eng 5131 or Aero Eng 5131; Mech Eng 5139 or Aero Eng 5139	3.0- 3.0	77986	LEC	1A	MWF	12:00 - 12:50 pm	FUL	00107A	Homan,K

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
6040 <b>Oral Examination</b> Student will be billed for one credit hour not required for students otherwise enrolled. Graduate office permission required.	0.0- 0.0	75380	IND	6A	ARR	ARR	ARR		
6050 <b>Continuous Registration</b> Doctoral students only. Graduate Office permission required.	1.0- 1.0	75381	IND	6A	ARR	ARR	ARR		
6085 <b>Internship</b> DE students only.	0.0-15.0	75379	IND	6A	ARR	ARR	ARR		
6099 <b>Research</b> Consent of instructor required.	0.0-15.0	75345	IND	6A	ARR	ARR	ARR		Asle Zaeem,M
	0.0-15.0	75346	IND	6B	ARR	ARR	ARR		Balakrishnan,S
	0.0-15.0	75347	IND	6C	ARR	ARR	ARR		Baur,S
	0.0-15.0	75348	IND	6D	ARR	ARR	ARR		Bristow,D
	0.0-15.0	75349	IND	6E	ARR	ARR	ARR		Carroll,D
	0.0-15.0	75350	IND	6F	ARR	ARR	ARR		Chandrashekhara,K
	0.0-15.0	75351	IND	6G	ARR	ARR	ARR		Chen,L
	0.0-15.0	75352	IND	6H	ARR	ARR	ARR		Dharani,L
	0.0-15.0	75353	IND	6J	ARR	ARR	ARR		Dong,X
	0.0-15.0	75354	IND	6K	ARR	ARR	ARR		Drallmeier,J
	0.0-15.0	75355	IND	6L	ARR	ARR	ARR		Du,X
	0.0-15.0	75356	IND	6M	ARR	ARR	ARR		Duan,L
	0.0-15.0	75357	IND	6N	ARR	ARR	ARR		Eversman,W
	0.0-15.0	75358	IND	6P	ARR	ARR	ARR		Gao,J
	0.0-15.0	75359	IND	6Q	ARR	ARR	ARR		Han,D
	0.0-15.0	75360	IND	6R	ARR	ARR	ARR		Homan,K
	0.0-15.0	75361	IND	6T	ARR	ARR	ARR		Hosder,S
	0.0-15.0	75362	IND	6U	ARR	ARR	ARR		Isaac,K
	0.0-15.0	75363	IND	6V	ARR	ARR	ARR		Kinzel,E
	0.0-15.0	75364	IND	6W	ARR	ARR	ARR		Koylu,U
	0.0-15.0	75365	IND	6X	ARR	ARR	ARR		Krishnamurthy,K
	0.0-15.0	75366	IND	6Y	ARR	ARR	ARR		Landers,R
	0.0-15.0	75367	IND	6Z	ARR	ARR	ARR		Leu,M
	0.0-15.0	75368	IND	6AA	ARR	ARR	ARR		Liou,F
	0.0-15.0	75369	IND	6BB	ARR	ARR	ARR		Midha,A
	0.0-15.0	75370	IND	6CC	ARR	ARR	ARR		Nisbett,J
	0.0-15.0	75371	IND	6DD	ARR	ARR	ARR		Okafor,A
	0.0-15.0	75372	IND	6EE	ARR	ARR	ARR		Pan,H
	0.0-15.0	75373	IND	6FF	ARR	ARR	ARR		Park,J
	0.0-15.0	75374	IND	6GG	ARR	ARR	ARR		Pernicka,H
	0.0-15.0	75375	IND	6HH	ARR	ARR	ARR		Riggins,D
	0.0-15.0	75376	IND	6JJ	ARR	ARR	ARR		Schonberg,W
	0.0-15.0	75378	IND	6KK	ARR	ARR	ARR		Song,Y
	0.0-15.0	75377	IND	6LL	ARR	ARR	ARR		Stutts,D
	0.0-15.0	76576	IND	6MM	ARR	ARR	ARR		Tsai,H
	0.0-15.0	76605	IND	6NN	ARR	ARR	ARR		Venayagamoorthy,G
	0.0-15.0	77989	IND	6PP	ARR	ARR	ARR		Wang,C
	0.0-15.0	77990	IND	6QQ	ARR	ARR	ARR		Wojnar,C
	0.0-15.0	77991	IND	6RR	ARR	ARR	ARR		Yang,R
	0.0-15.0	77992	IND	6TT	ARR	ARR	ARR		Yang,X
6135 <b>Turbulent Flows - Theory, Measurements and Modeling</b> Prerequisite: Mech Eng 5131 or Aero Eng 5131 or Mech Eng 5139 or Aero Eng 5139 or equivalent. (Co-listed with Aero Eng 6135)	3.0- 3.0	78112	LEC	1A	TTh	08:00 - 09:15 am	TMH	00250	Duan,L
6222 <b>Theory of Elasticity</b> Prerequisites: CIV ENG 2210. (Co-listed with Aero Eng 6222)	3.0- 3.0	78114	LEC	1A	TTh	09:30 - 10:45 am	LIB	000G14	Dharani,L
6284 <b>Analysis of Laminated Composite Structures</b> Prerequisite: Mech Eng 5282 or Aero Eng 5282. (Co-listed with Aero Eng 6284)	3.0- 3.0	75848	LEC	1A	W	04:00 - 06:30 pm	BERTELS	00B12B	Birman,V

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
6447 <b>Markov Decision Processes</b> Prerequisite: Graduate standing in background of probability or statistics. (Co-listed with Comp Eng 6310, Mech Eng 6447, Eng Mgt 6410 and Comp Sci 6202)	3.0- 3.0	76099	LEC	1A	M	04:00 - 06:30 pm	TMH	00260	Wunsch,D
6526 <b>Micro-/Nano-Scale Thermophysics and Energy Transport</b> Prerequisite: Mech Eng 5525.	3.0- 3.0	76863	LEC	1A	TTh	02:00 - 03:15 pm	MCNT	00245	Gao,J
6585 <b>Advanced Optical Materials and Structures</b> Prerequisite: Elec Eng 5200 or equivalent.	3.0- 3.0	77689	LEC	1A	TTh	11:00 - 12:15 pm	HARR	00107	Yang,X
6657 <b>Laser Aided Manufacturing And Materials Processing</b> Prerequisite: Mech Eng 5525.	3.0- 3.0	78115	LEC	1A	TTh	09:30 - 10:45 am	MCNT	00265	Tsai,H
6704 <b>Mechanics of Machinery</b> Prerequisites: Vector & matrix analysis; introductory planar kinematic & dynamic analysis of mechanisms; MECH ENG 5704 or equivalent.	3.0- 3.0	76864	LEC	1A	MWF	12:00 - 12:50 pm	TMH	00260	Midha,A

## Metallurgical Engineering

2110 <b>Metallurgy For Engineers</b> Prerequisite: Preceded or accompanied by Chem 1310, prior or concurrent.	3.0- 3.0	75382	LEC	1A	MWF	09:00 - 09:50 am	MCNT	00204	Miller,F
	3.0- 3.0	75383	LEC	1B	MWF	11:00 - 11:50 am	MCNT	00204	Miller,F
2410 <b>Applied Metal Forming</b> Prerequisite: Chem 1100.	2.0- 2.0		LEC	1A	F	12:00 - 12:50 pm	MCNT	00265	Newkirk,J
	2.0- 2.0	77414	LAB	3A	F	01:30 - 03:30 pm	MCNT	00265	Newkirk,J
3120 <b>Fundamentals Of Materials Behavior</b> Prerequisite: "C" or better grade in both Met Eng 2110 and Civ Eng 2210.	3.0- 3.0	75793	LEC	1A	MWF	10:00 - 10:50 am	MCNT	00206	Zhou,C
3125 <b>Mechanical Testing of Materials</b> Prerequisite: "C" or better in Met Eng 2110 and preceded or accompanied by Met Eng 3120.	2.0- 2.0		LEC	1A	M	01:00 - 01:50 pm	MCNT	00206	Wen,H
	2.0- 2.0	76613	LAB	3A	M	02:00 - 03:50 pm	MCNT	00243	Wen,H
	2.0- 2.0	76614	LAB	3B	T	02:00 - 03:50 pm	MCNT	00243	Wen,H
	2.0- 2.0	77053	LAB	3C	W	02:00 - 03:50 pm	MCNT	00243	Wen,H
3320 <b>Transport Phenomena In Metallurgy</b> Prerequisite: "C" or better grade in Civ Eng 2200.	3.0- 3.0	75385	LEC	1A	MWF	11:00 - 11:50 am	MCNT	00206	Schlesinger,M
4000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75386	IND	6A	ARR	ARR	ARR		Asle Zaeem,M
	0.0- 6.0	75387	IND	6B	ARR	ARR	ARR		Miller,F
	0.0- 6.0	75388	IND	6C	ARR	ARR	ARR		Moats,M
	0.0- 6.0	75389	IND	6D	ARR	ARR	ARR		Newkirk,J
	0.0- 6.0	75390	IND	6E	ARR	ARR	ARR		O'Malley,R
	0.0- 6.0	75391	IND	6F	ARR	ARR	ARR		Richards,V
	0.0- 6.0	75392	IND	6G	ARR	ARR	ARR		Schlesinger,M
	0.0- 6.0	75393	IND	6H	ARR	ARR	ARR		Van Aken,D
	0.0- 6.0	75394	IND	6J	ARR	ARR	ARR		Zhou,C
4096 <b>Materials Senior Design I</b> Prerequisites: Met Eng 3125 and Met Eng 2125, or Cer Eng 3315 with a "C" or better. (Co-listed with Cer Eng 4096)	3.0- 3.0	76591	LEC	1A	MWF	09:00 - 09:50 am	MCNT	00216	Schlesinger,M
4099 <b>Undergraduate Research</b> Prerequisite: Consent of instructor.	0.0- 6.0	75400	IND	6A	ARR	ARR	ARR		Bartlett,L
	0.0- 6.0	75401	IND	6B	ARR	ARR	ARR		Miller,F
	0.0- 6.0	75402	IND	6C	ARR	ARR	ARR		Moats,M
	0.0- 6.0	75403	IND	6D	ARR	ARR	ARR		Newkirk,J
	0.0- 6.0	75404	IND	6F	ARR	ARR	ARR		O'Malley,R
	0.0- 6.0	76776	IND	6G	ARR	ARR	ARR		Richards,V
	0.0- 6.0	77770	IND	6H	ARR	ARR	ARR		Wen,H
	0.0- 6.0	77771	IND	6J	ARR	ARR	ARR		Xu,M
4350 <b>Process Metallurgy Applications</b> Prerequisite: "C" or better grade in Cer Eng 3230.	3.0- 3.0	75398	LEC	1A	TTh	01:00 - 01:50 pm	MCNT	00212	Schlesinger,M
			LEC	1A	Th	02:00 - 03:15 pm	MCNT	00114	

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
4420 <b>Metals Casting</b> Prerequisite: "C" or better grade in either Met Eng 3420 or Mech Eng 2653.	3.0- 3.0	75395	LEC	1A	TTh	08:00 - 09:15 am	MCNT	00216	Bartlett,L
4425 <b>Metals Casting Lab</b> Prerequisite: Accompanied or preceded by Met Eng 4420.	1.0- 1.0	77585	LAB	3A	W	01:00 - 03:50 pm	MCNT	00244	Bartlett,L
5000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0 0.0- 6.0 0.0- 6.0	75405 75776 75406	IND	6A 6B 6C	ARR	ARR ARR ARR	ARR ARR ARR		Hilmas,G Richards,V Schlesinger,M
5040 <b>Oral Examination</b> Student will be billed for one credit hour not required for students otherwise enrolled. Graduate Office permission required.	0.0- 0.0	75415	IND	6A	ARR	ARR	ARR		
5099 <b>Research</b> Prerequisite: Consent of instructor required.	0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0	75407 75408 75409 75410 76465 75411 75412 75413 75414	IND	6A 6B 6C 6D 6E 6F 6G 6H 6J	ARR	ARR ARR ARR ARR ARR ARR ARR ARR	ARR ARR ARR ARR ARR ARR ARR ARR		Asle Zaeem,M Miller,F Moats,M Newkirk,J O'Malley,R Richards,V Schlesinger,M Van Aken,D Zhou,C
5170 <b>Nuclear Materials I</b> Prerequisites: Civ Eng 2210; Nuc Eng 3205; Nuc Eng 3223; Met Eng 2110.(Co-listed with Nuc Eng 4241)	3.0- 3.0	75397	LEC	1A	TTh	11:00 - 12:15 pm	FUL	00227	Graham,J
5420 <b>Advanced Metals Casting</b> Prerequisite: Met Eng 3420 or Mech Eng 2653.	3.0- 3.0	76805	LEC	1A	TTh	08:00 - 09:15 am	MCNT	00216	Bartlett,L
5425 <b>Metals Casting Laboratory</b> Prerequisite: Accompanied or preceded by Met Eng 4420.	1.0- 1.0	75396	LAB	3A	W	01:00 - 03:50 pm	MCNT	00244	Bartlett,L
5440 <b>Metal Deformation Processes</b> Prerequisite: Met Eng 3120 and Met Eng 3420 both with "C" or better grade.	3.0- 3.0	78060	LEC	1A	TTh	09:30 - 10:45 am	MCNT	00210	O'Malley,R
5480 <b>Refining Of Metals</b> Prerequisite: Cer Eng 3230 and Met Eng 3220 or graduate standing.	2.0- 3.0	78260	IND	6A	MW	12:00 - 12:50 pm	MCNT	00245	Moats,M
5520 <b>Electron Microscopy</b> Prerequisites: Met Eng 3130 and Met Eng 2125, or a course in optical microscopy.	3.0- 3.0	77586	LEC	1A	TTh	11:00 - 12:15 pm	MCNT	00206	Miller,F
5525 <b>Scanning Electron Microscopy Lab</b> Prerequisite: Preceded or accompanied by Met Eng 5520.	1.0- 1.0 1.0- 1.0	77587 77588	LAB	3A 3B	W W	09:00 - 11:50 am 01:00 - 03:50 pm	MCNT MCNT	00012 00012	Wisner,C Wisner,C
5810 <b>Principles Of Engineering Materials</b> (Co-listed with Aero Eng 3877, Chem Eng 5300, Physics 4523, Cer Eng 5810)	3.0- 3.0	75399	LEC	1A	MWF	08:00 - 08:50 am	MCNT	00216	Newkirk,J
6050 <b>Continuous Registration</b> Doctoral students only. Graduate Office permission required.	1.0- 1.0	75416	IND	6A	ARR	ARR	ARR		Moats,M
6099 <b>Research</b>	0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0 0.0-15.0	77010 77011 77012 77013 77014 77015 77016 77017 77018 77019 77344 77772	IND	6A 6B 6C 6D 6E 6F 6G 6H 6J 6K 6L 6M	ARR	ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR	ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR ARR		Asle Zaeem,M Bartlett,L Miller,F Moats,M Newkirk,J O'Malley,R Richards,V Schlesinger,M Van Aken,D Wen,H Xu,M Zhou,C
1000 <b>Army Physical Readiness Program</b>	1.0- 1.0	75417	LAB	3A	ARR	ARR	ARR		Richard,S

## Military Science - Army ROTC

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
1250 <b>Leadership and Personal Development</b>	1.0- 1.0	76155	LEC	1A	W	02:00 - 02:50 pm	HARR	00302	Weicht,R
1700 <b>Rifle Marksmanship</b>	1.0- 1.0	78270	LEC	1A	M	11:00 - 11:50 am	HARR	00302	Pense,C
1750 <b>Wilderness Survival And Life-Saving Techniques</b>	1.0- 1.0	78271	LEC	1A	M	01:00 - 01:50 pm	HARR	00302	Pense,C
2250 <b>Innovative Team Leadership</b>	3.0- 3.0	76545	LEC	1A	TTh	09:30 - 10:45 am	HARR	00302	Shelby,T
2750 <b>Basic Leadership Laboratory</b> Prerequisite: To accompany Mil Army 2500.	1.0- 1.0	75751	LAB	3A	W	03:00 - 06:00 pm	ARR		Richard,S
3250 <b>Adaptive Tactical Leadership</b> Prerequisites: Mil Army 1250, 1500,	3.0- 3.0		LEC	1A	TTh	08:00 - 08:50 am	ARR		Richard,S
2250, 2500 - Exceptions to be made by	3.0- 3.0		LEC	1B	TTh	08:00 - 08:50 am	HARR	00302	Richard,S
Dept Chair Only In Accordance with Army	3.0- 3.0	75950	LAB	3A	W	03:00 - 06:00 pm	ARR		Richard,S
(Cadet Command) Policies.	3.0- 3.0	76547	LAB	3B	W	03:00 - 06:00 pm	ARR		Richard,S
4000 <b>Special Problems</b> Prerequisites: Mil Army 4250 and 4500 - Exceptions to be made by Dept Chair Only in accordance with Army (Cadet Command) policies.	0.0- 6.0	75418	IND	6A	ARR	ARR	ARR		Register,O
4250 <b>Developing Adaptive Leaders</b> Prerequisites: Mil Army 3250 and 3500 - Exceptions to be made by Dept Chair Only in accordance with Army (Cadet Command) policies.	3.0- 3.0		LEC	1A	M	03:00 - 05:00 pm	HARR	00302	Register,O
	3.0- 3.0	76549	LAB	3A	W	03:00 - 06:00 pm	ARR		Register,O

## Mining Engineering

1912 <b>Principles Of Mining Engineering</b>	2.0- 2.0	78245	LEC	1A	T	11:00 - 12:30 pm	H-SS	000G9	Lusk,B
			<b>Field Trip Required</b>						
2126 <b>Introduction To Mining Safety</b>	1.0- 1.0	76338	LAB	3A	Th	01:00 - 03:45 pm	MINE		Konya,T
	1.0- 1.0	76462	LAB	3B	T	01:00 - 03:45 pm	MINE		Konya,T
2925 <b>Surveying For Mineral Engineers</b> Prerequisite: Preceded or accompanied by Min Eng 2126.	2.0- 2.0	75419	LAB	3A	M	01:00 - 03:50 pm	MINE		Frimpong,S
			Class meets in McNutt for the first three weeks. Room number to be announced. <b>See 'Notes' for Class Schedule</b>						
3002 <b>Mine Rescue</b> Prerequisite: Min Eng 2126.	3.0- 3.0		LEC	1A	F	01:00 - 03:30 pm	MINE		Phelps,C Kerr,E
	3.0- 3.0	75421	LAB	3A	ARR	ARR	ARR		Phelps,C
3512 <b>Mining Industry Economics</b> Prerequisite: Econ 1100 or 1200. (Co-listed with Econ 3512)	3.0- 3.0	75425	LEC	1A	TTh	08:00 - 09:15 am	EMGT	00201	Johnson,C
3912 <b>Materials Handling In Mines</b> Prerequisite: Min Eng 1912.	3.0- 3.0		LEC	1A	TTh	09:00 - 09:50 am	MCNT	00204	Frimpong,S
	3.0- 3.0	75774	LAB	3A	Th	04:00 - 05:50 pm	MCNT	00216	Frimpong,S
3913 <b>Mineral Identification and Exploration</b> Prerequisites: Either both Chem 1310 and Chem 1319 or Chem 1351; either Geo Eng 1150 or Geology 1110.	3.0- 3.0		LEC	1A	MW	05:00 - 06:15 pm	EMGT	00103	Seeger,C
	3.0- 3.0	78230	LAB	3A	ARR	ARR	ARR		Seeger,C
4000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75426	IND	6A	ARR	ARR	ARR		Alagha,L
	0.0- 6.0	76120	IND	6B	F	09:00 - 09:50 am	MCNT	00114	Aouad,N
	0.0- 6.0	76371	IND	6C	ARR	ARR	ARR		Frimpong,S
	0.0- 6.0	77047	IND	6D	ARR	ARR	ARR		Weiss,D
4096 <b>Computer Aided Mine Design</b> Prerequisites: Min Eng 4522, Min Eng 4932, and Min Eng 4933.	3.0- 3.0	77278	LAB	3A	TTh	09:30 - 10:45 am	MCNT	00114	Awuah-Offei,K
4099 <b>Undergraduate Research</b>	0.0- 6.0	76050	IND	6A	ARR	ARR	ARR		Alagha,L
	0.0- 6.0	75945	IND	6B	ARR	ARR	ARR		Frimpong,S
	0.0- 6.0	75761	IND	6C	ARR	ARR	ARR		Galecki,G
4122 <b>Advanced Mine Health and Safety</b> Prerequisite: Min Eng 2126.	3.0- 3.0	77312	LEC	1A	TTh	08:00 - 09:15 am	LIB	000G14	Weiss,D
4512 <b>Mine Management</b> Prerequisite: Completion of 50 credits toward Mining Engineering degree. (Co-listed ECON 4512)	3.0- 3.0	78266	LEC	1A	MWF	09:00 - 09:50 am	CS	00209	Weiss,D
			<b>Communication Emphasized</b>						
4523 <b>Environmental And Natural Resource Economics</b> Prerequisite: Econ 2100. (Co-listed with Econ 4440)	3.0- 3.0	76217	LEC	1A	MWF	10:00 - 10:50 am	CSF	00G5D	Fikru,M
5000 <b>Special Problems</b>	0.0- 6.0	77914	IND	6A	ARR	ARR	ARR		Awuah-Offei,K

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
5113 <b>Mine Atmosphere Control</b> Prerequisite: Mech Eng 2527 and Civ Eng 3330; or Nuc Eng 3221.	3.0- 3.0		LEC	1A	MW	04:00 - 04:50 pm	TMH	00249	Hyder,Z
	3.0- 3.0	78265	LAB	3A	M	01:50 - 03:45 pm	MINE		Hyder,Z
5423 <b>Flotation and Hydrometallurgy</b> Prerequisites: Min Eng 2412.	3.0- 3.0		LEC	1A	MW	08:00 - 08:50 am	MCNT	00265	Alagha,L
	3.0- 3.0	78232	LAB	3A	ARR	ARR	ARR		Alagha,L
5532 <b>Advanced Mining Economics</b> (Co-listed with ECON 5532)	3.0- 3.0	77048	LEC	1A	ARR	ARR	ARR		Johnson,C
5912 <b>Mine Power and Drainage</b> Prerequisite: Mech Eng 2527 and Civ Eng 3330; or Nuc Eng 3221.	3.0- 3.0		LEC	1A	MW	11:00 - 11:50 am	MCNT	00216	Galecki,G
	3.0- 3.0	78235	LAB	3A	T	04:00 - 04:50 pm	ARR		Galecki,G
5932 <b>Underground Mining Methods</b> Prerequisite: Preceded or accompanied by Min Eng 3913.	3.0- 3.0	78268	LEC	1A	TTh	09:30 - 11:00 am	TMH	00250	Aouad,N
6000 <b>Special Problems</b>	0.0- 6.0	76028	IND	6A	ARR	ARR	ARR		Aouad,N
	0.0- 6.0	76043	IND	6B	ARR	ARR	ARR		Auwah-Offei,K
	0.0- 6.0	76030	IND	6C	ARR	ARR	ARR		Frimpong,S
	0.0- 6.0	76046	IND	6D	ARR	ARR	ARR		Galecki,G
	0.0- 6.0	77362	IND	6G	ARR	ARR	ARR		Lusk,B
6001 <b>Special Topics</b> Prerequisites: Graduate standing or Stat 3113.	3.0- 3.0	77915	LEC	1A	<b>CANCELLED</b>				
	3.0- 3.0	78345	LEC	1B	TTh	02:00 - 03:15 pm	ARR		Frimpong,S
					Truck Haulage Engr				
6010 <b>Seminar</b>	1.0- 1.0	75431	RSD	2A	M	12:00 - 12:50 pm	MCNT	00265	Auwah-Offei,K
6040 <b>Oral Examination</b> Student will be billed for one credit hour not required for students otherwise enrolled. Graduate Office permission required.	0.0- 0.0	75436	IND	6A	ARR	ARR	ARR		Lusk,B
6050 <b>Continuous Registration</b> Doctoral students only. Graduate Office permission required.	1.0- 1.0	75437	IND	6A	ARR	ARR	ARR		Lusk,B
6080 <b>Graduate Project</b>	3.0- 3.0	77365	IND	6B	ARR	ARR	ARR		Perry,K
6099 <b>Research</b> Prerequisite: Consent of instructor required.	0.0-15.0	75433	IND	6A	ARR	ARR	ARR		Alagha,L
	0.0-15.0	76007	IND	6B	ARR	ARR	ARR		Aouad,N
	0.0-15.0	75768	IND	6C	ARR	ARR	ARR		Auwah-Offei,K
	0.0-15.0	76051	IND	6D	ARR	ARR	ARR		Frimpong,S
	0.0-15.0	76145	IND	6E	ARR	ARR	ARR		Galecki,G
	0.0-15.0	75434	IND	6F	ARR	ARR	ARR		Ge,M
	0.0-15.0	75435	IND	6G	ARR	00:00 - 00:00 am			Homan,K
	0.0-15.0	77337	IND	6H	ARR	ARR	ARR		Lusk,B
	0.0-15.0	77360	IND	6J	ARR	ARR	ARR		Perry,K
6132 <b>Advanced Mine Health And Safety Design</b> Prerequisite: Graduate standing.	3.0- 3.0	75432	LEC	1A	TTh	08:00 - 09:15 am	LIB	000G14	Weiss,D
6622 <b>Environmental Controls For Blasting</b> Prerequisites: Min Eng 5612, Successful background check. (Co-listed with Exp Eng 6412)	3.0- 3.0		LEC	1A	ARR	ARR			
	3.0- 3.0	77268	LAB	3A	ARR	ARR			
6632 <b>Theory Of High Explosives</b> Prerequisite: Graduate Standing. (Co-listed with Exp Eng 6212)	3.0- 3.0	77909	LEC	1A	ARR	ARR	ARR		Baird,J
6912 <b>Simulation of Mining Systems</b> Prerequisites: Graduate standing or Stat 5643.	3.0- 3.0	78381	LEC	1A	TTh	04:00 - 05:15 pm	CH	00105	Auwah-Offei,K
6992 <b>Research Methods</b> Prerequisites: PhD students only. (Co-listed with Exp Eng 6292)	3.0- 3.0	78383	LEC	1A	ARR	ARR	ARR		Frimpong,S

## Miscellaneous

CPSS <b>College Program for Success</b>	0.0- 0.0	76202	RSD	2A	ARR	ARR	ARR		Morris,R
					SESSION WILL MEET AUG 13 - 17. MONDAY AUG 13, 12:30-3:30 P.M. TUESDAY THROUGH FRIDAY 8:30-10:30 A.M. AND 1:30-3:30 P.M. THIS IS THE WEEK PRIOR TO THE BEGINNING OF CLASSES.				

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
EDGE <b>The Financial Edge</b>	0.0- 0.0	76926	RSD	2A	ARR	ARR	ARR		Klossner-Thompson,K
			SESSION WILL MEET AUG 13 - 17. MONDAY AUG 13, 12:30-3:30 P.M. TUESDAY THROUGH FRIDAY 8:30-10:30 A.M. AND 1:30-3:30 P.M. THIS IS THE WEEK PRIOR TO THE BEGINNING OF CLASSES.						
INNOV <b>INNOVATE</b>	0.0- 0.0	77234	RSD	2A	ARR	ARR	ARR		Bachman,B
			SESSION WILL MEET AUG 13 - 17. MONDAY AUG 13, 12:30-3:30 P.M. TUESDAY THROUGH FRIDAY 8:30-10:30 A.M. AND 1:30-3:30 P.M. THIS IS THE WEEK PRIOR TO THE BEGINNING OF CLASSES.						
LEAD <b>Lead by Digging Deeper</b>	0.0- 0.0	76421	RSD	2A	ARR	ARR	ARR		Klossner-Thompson,K
			SESSION WILL MEET AUG 13 - 17. MONDAY AUG 13, 12:30-3:30 P.M. TUESDAY THROUGH FRIDAY 8:30-10:30 A.M. AND 1:30-3:30 P.M. THIS IS THE WEEK PRIOR TO THE BEGINNING OF CLASSES.						
PRBSOL <b>Problem Solving Workshop</b>	0.0- 0.0	75615	RSD	2A	ARR	ARR	ARR		
			SESSION WILL MEET AUG 13 - 17. MONDAY AUG 13 12:30-3:30 P.M. TUESDAY THROUGH FRIDAY 8:30-10:30 A.M. AND 1:30-3:30 P.M. THIS IS THE WEEK PRIOR TO THE BEGINNING OF CLASSES.						
TRGREV <b>Trigonometry Review Workshop</b>	0.0- 0.0	75614	RSD	2A	ARR	ARR	ARR		Fitch,S
			SESSION WILL MEET AUG 13 - 17. MONDAY AUG 13, 12:30-3:30 P.M. TUESDAY THROUGH FRIDAY 8:30-10:30 A.M. AND 1:30-3:30 P.M. THIS IS THE WEEK PRIOR TO THE BEGINNING OF CLASSES.						

## Music

1111 <b>Individual Music Instruction I</b> Prerequisite: Consent of instructor required.	1.0- 1.0	75438	LAB	3A	ARR	ARR	ARR		Francis,L
	1.0- 1.0	76319	LAB	3B	ARR	ARR	ARR		Cress,D
			Piano only						
			Brass Only.						
1121 <b>Individual Music Instruction II</b> Prerequisite: Consent of instructor.	1.0- 2.0	75439	LAB	3A	ARR	ARR	ARR		Francis,L
			Piano only						
1130 <b>Wind Symphony</b>	2.0- 2.0	75440	LAB	3B	MWF	12:00 - 12:50 pm	CASTL	00137	Samson,D
1131 <b>Marching Band</b>	2.0- 2.0	77276	LAB	3A	TWTh	04:00 - 05:30 pm	CASTL	00137	Samson,D
1132 <b>University Orchestra</b>	2.0- 2.0	75441	LAB	3A	M	07:00 - 09:30 pm	CASTL	00137	Wernke,K
			(Symphony Orchestra)						
1134 <b>Instrumental Chamber Ensemble-Strings</b>	1.0- 1.0	75442	LAB	3A	Th	07:00 - 09:00 pm	CASTL	00137	Wernke,K
			(Chamber Orchestra)						
1135 <b>Symphonic Band</b> (Concert Band)	0.0- 2.0	75443	LAB	3A	M	04:00 - 05:20 pm	CASTL	00137	Cress,D
			<b>MOTR PERF 102B: Music Performance-Band</b>						
			<b>MOTR PERF 102O: Music Performance-Orchestra</b>						
1136 <b>Jazz Ensemble</b> Prerequisite: Consent of instructor.	1.0- 1.0	75444	LAB	3A	T	06:00 - 08:30 pm	CASTL	00137	Cress,D
1140 <b>University Choir</b>	1.0- 1.0	75445	LAB	3A	TTh	02:00 - 03:15 pm	CASTL	00138	Francis,L
			<b>MOTR PERF 102C: Music Performance-Choir</b>						
1141 <b>Chamber Vocal Ensembles</b>	1.0- 1.0	75835	LAB	3A	TTh	12:30 - 01:45 pm	CASTL	00138	Francis,L
1150 <b>Music Understanding And Appreciation</b>	3.0- 3.0	75666	LEC	1A	MWF	02:00 - 02:50 pm	CASTL	00138	Francis,L
			<b>MOTR MUSC 100: Music Appreciation</b>						
2111 <b>Individual Music Instruction III</b> Prerequisite: Consent of instructor.	1.0- 2.0	75446	LAB	3A	ARR	ARR	ARR		Francis,L
			Piano only						
	1.0- 2.0	77319	LAB	3B	ARR	ARR	ARR		Cress,D
			Brass Only						
2121 <b>Individual Music Instruction IV</b> Prerequisite: Consent of instructor.	1.0- 2.0	75447	LAB	3A	ARR	ARR	ARR		Francis,L
			Piano only						
	1.0- 2.0	77377	LAB	3B	ARR	ARR	ARR		Wernke,K
2161 <b>Theory of Music I</b>	3.0- 3.0	78016	LEC	1A	TTh	09:30 - 10:45 am	CASTL	00137	Samson,D
			<b>MOTR MUSC 101: Music Fundamentals</b>						
3000 <b>Special Problems</b> Prerequisite: Consent of instructor.	0.0- 6.0	75448	IND	6A	ARR	ARR	ARR		Francis,L

## Nuclear Engineering

1105 <b>Nuclear Technology Applications</b>	1.0- 1.0	75904	LEC	1A	M	03:00 - 03:50 pm	FUL	00227	Castano,C
2001 <b>Special Topics</b> Prerequisites: Must be accompanied by Comp Sci 1971 or Comp Sci 1972.	1.0- 1.0	78269	LEC	1A	F	12:00 - 12:50 pm	FUL	00227	Schlegel,J
			Prof Dev for Nuc Engineers						



CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
2105 <b>Introduction To Nuclear Engineering</b> Prerequisite: Math 1215 or Math 1221.	2.0- 2.0	75449	LEC	1A	MW	11:00 - 11:50 am	FUL	00209	Mueller,G
2406 <b>Reactor Operations I</b> Prerequisites: Math 1214 or Math 1208; preceded or accompanied by Nuc Eng 1105.	1.0- 1.0 1.0- 1.0 1.0- 1.0	76964 76965 76966	LAB LAB LAB	3A 3B 3C	M T T	02:00 - 02:50 pm 09:00 - 09:50 am 02:00 - 02:50 pm	BCH BCH BCH	00317 00215 00215	Graham,J Graham,J Graham,J
3000 <b>Special Problems</b>	0.0- 6.0	75856	IND	6A	ARR	ARR	ARR		Usman,S
3205 <b>Fundamentals Of Nuclear Engineering</b> Prerequisite: Physics 2305 or Nuc Eng 3103; Math 3304.	3.0- 3.0	75450	LEC	1A	MWF	10:00 - 10:50 am	IDE	00206	Alajo,A
3221 <b>Reactor Fluid Mechanics</b> Prerequisites: Math 3304, Junior standing.	3.0- 3.0	75957	LEC	1A	MWF	11:00 - 11:50 am	EMGT	00201	Schlegel,J
3377 <b>Nuclear Forensics and Radiochemistry</b> Prerequisites: NUC ENG 2105 recommended.	3.0- 3.0	77996	LEC	1A	TTh	09:30 - 10:45 am	FUL	00220	Castano,C
4000 <b>Special Problems</b>	0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0	75451 75452 75453 76267 76275 76304 76409 77765	IND IND IND IND IND IND IND IND	6A 6B 6C 6E 6F 6G 6H 6J	ARR ARR ARR ARR ARR ARR ARR ARR	ARR ARR ARR ARR ARR ARR ARR ARR	ARR ARR ARR ARR ARR ARR ARR ARR		Alajo,A Al Dahhan,M Castano,C Lee,H Liu,X Mueller,G Schlegel,J Usman,S
4010 <b>Seminar</b> Prerequisite: Senior standing.	0.0- 6.0	75458	RSD	2A	M	12:00 - 12:50 pm	MCNT	00216	Usman,S
4099 <b>Undergraduate Research</b>	0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0 0.0- 6.0	75854 75786 76242 76247 76276 76305 76410 76790 75457	IND IND IND IND IND IND IND IND IND	6A 6B 6C 6D 6E 6F 6H 6J	ARR ARR ARR ARR ARR ARR ARR ARR ARR	ARR ARR ARR ARR ARR ARR ARR ARR ARR	ARR ARR ARR ARR ARR ARR ARR ARR ARR		Alajo,A Al Dahhan,M Castano,C Lee,H Liu,X Mueller,G Schlegel,J Usman,S
4207 <b>Nuclear Fuel Cycle</b> Prerequisite: Nuc Eng 3205.	3.0- 3.0	75457	LEC	1A	MWF	11:00 - 11:50 am	FUL	00227	Alajo,A
4215 <b>Space Nuclear Power And Propulsion</b> Prerequisites: Nuc Eng 4203 and Nuc Eng 4229.	3.0- 3.0	78305	LEC	1A	MWF	09:00 - 09:50 am	FUL	00209	Mueller,G
4241 <b>Nuclear Materials I</b> Prerequisites: Civ Eng 2210; Nuc Eng 3205; Nuc Eng 3223; Met Eng 2110. (Co-listed with Met Eng 5170)	3.0- 3.0	75459	LEC	1A	TTh	11:00 - 12:15 pm	FUL	00227	Graham,J
4253 <b>Monte Carlo Approach to Reactor Analysis</b> Prerequisites: Accompanied by NUC ENG 3205	3.0- 3.0	76792	LEC	1A	MWF	03:00 - 03:50 pm	FUL	00220	Alajo,A
4259 <b>Licensing Of Nuclear Power Plants</b> Prerequisite: Nuc Eng 3205.	3.0- 3.0 3.0- 3.0 3.0- 3.0 3.0- 3.0	  77685 77784	LEC LEC LAB LAB	1A 1B 3A 3B	TTh ARR ARR ARR	10:00 - 10:50 am ARR ARR ARR	H-SS ARR ARR ARR	000G8	Usman,S Usman,S Usman,S Usman,S
4350 <b>Introduction to Nuclear Medical Science</b> Prerequisites: Nuc Eng 4312 or equivalent.	3.0- 3.0	76943	LEC	1A	MWF	10:00 - 10:50 am	TMH	00256	Lee,H
4363 <b>Applied Health Physics</b> Prerequisite: Nuc Eng 3103 or Physics 2305.	3.0- 3.0	76804	LEC	1A	TTh	03:00 - 04:15 pm	EMGT	00104	Usman,S
4370 <b>Plasma Physics I</b> Prerequisite: Aero Eng 3131 or Mech Eng 3131 or Physics 3211 or Nuc Eng 3221 or Elec Eng 3600. (Co-listed with Aero Eng 5570, Mech Eng 5570, Physics 4543)	3.0- 3.0	77980	LEC	1A	TTh	08:00 - 09:15 am	TMH	00249	Han,D

CATALOG #	AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
4428	<b>Reactor Laboratory I</b> Prerequisites: Nuc Eng 4312, 3205.	2.0- 2.0		LEC	1A	M	02:00 - 02:50 pm	FUL	00220	Gehrig,M
		2.0- 2.0	75455	LAB	3A	W	02:00 - 04:50 pm	ARR		Gehrig,M
		2.0- 2.0	75456	LAB	3B	Th	12:30 - 03:15 pm	ARR		Gehrig,M
4496	<b>Nuclear System Design I</b> Prerequisites: Nuc Eng 3223, Nuc Eng 4203, and Nuc Eng 4229; preceded or accompanied by Nuc Eng 4241.	1.0- 1.0	77997	LAB	3A	ARR	ARR	ARR		Castano,C
5207	<b>Nuclear Fuel Cycle</b> Prerequisite: Nuc Eng 3205.	3.0- 3.0	76821	LEC	1A	MWF	11:00 - 11:50 am	FUL	00227	Alajo,A
5241	<b>Nuclear Materials I</b> Prerequisites: Civ Eng 2210; Nuc Eng 3205; Nuc Eng 3223; Met Eng 2110. (Co-listed with Met Eng 5170)	3.0- 3.0	76820	LEC	1A	TTh	11:00 - 12:15 pm	FUL	00227	Graham,J
5350	<b>Advanced Nuclear Medical Science</b> Prerequisites: Nuc Eng 4312 or equivalent.	3.0- 3.0	76944	LEC	1A	MWF	10:00 - 10:50 am	TMH	00256	Lee,H
5363	<b>Applied Health Physics</b> Prerequisite: Nuc Eng 3103 or Physics 2305.	3.0- 3.0	76806	LEC	1A	TTh	03:00 - 04:15 pm	EMGT	00104	Usman,S
5428	<b>Reactor Laboratory I</b> Prerequisites: Nuc Eng 204, 3205.	2.0- 2.0		LEC	1A	M	02:00 - 02:50 pm	FUL	00220	Gehrig,M
		2.0- 2.0	76808	LAB	3A	W	02:00 - 04:50 pm	ARR		Gehrig,M
6000	<b>Special Problems</b>	0.0- 6.0	76040	IND	6A	ARR	ARR	ARR		Al Dahhan,M
		0.0- 6.0	76268	IND	6B	ARR	ARR	ARR		Lee,H
		0.0- 6.0	77372	IND	6C	ARR	ARR	ARR		Usman,S
		0.0- 6.0	78368	IND	6D	ARR	ARR	ARR		Alajo,A
6010	<b>Seminar</b>	0.0- 6.0	75460	RSD	2A	M	12:00 - 12:50 pm	MCNT	00216	Usman,S
6040	<b>Oral Examination</b> Student will be billed for one credit hour not required for students otherwise enrolled. Graduate Office permission required.	0.0- 0.0	75465	IND	6A	ARR	ARR	ARR		
6050	<b>Continuous Registration</b> Doctoral students only. Graduate Office permission required.	1.0- 1.0	75466	IND	6A	ARR	ARR	ARR		Lee,H
6085	<b>Internship</b> DE students only.	0.0-15.0	75464	IND	6A	ARR	ARR	ARR		Lee,H
6099	<b>Research</b> Prerequisite: Consent of instructor required.	0.0-15.0	75461	IND	6A	ARR	ARR	ARR		Alajo,A
		0.0-15.0	75462	IND	6B	ARR	ARR	ARR		Al Dahhan,M
		0.0-15.0	75463	IND	6C	ARR	ARR	ARR		Castano,C
		0.0-15.0	76212	IND	6D	ARR	ARR	ARR		Graham,J
		0.0-15.0	76243	IND	6E	ARR	ARR	ARR		Lee,H
		0.0-15.0	76306	IND	6F	ARR	ARR	ARR		Liu,X
		0.0-15.0	76379	IND	6G	ARR	ARR	ARR		Mueller,G
		0.0-15.0	76791	IND	6H	ARR	ARR	ARR		Schlegel,J
		0.0-15.0	77166	IND	6J	ARR	ARR	ARR		Usman,S
6205	<b>Linear Transport Theory</b> Prerequisites: Nuc Eng 4203, Math 5358.	3.0- 3.0	76803	LEC	1A	<b>CANCELLED</b>				
6223	<b>Nuclear Reactor Safety</b>	3.0- 3.0	77998	LEC	1A	<b>CANCELLED</b>				
6257	<b>Advanced Nuclear Thermal Hydraulics</b> Prerequisite: Math 5325.	3.0- 3.0	77468	LEC	1A	<b>CANCELLED</b>				
6331	<b>Radiation Shielding</b> Prerequisite: Nuc Eng 4203.	3.0- 3.0	76411	LEC	1A	<b>CANCELLED</b>				

## Petroleum Engineering

3000	<b>Special Problems</b>	1.0- 3.0	75471	IND	6A	ARR	ARR	ARR		Bai,B
		1.0- 3.0	75470	IND	6B	ARR	ARR	ARR		Dunn Norman,S
		1.0- 3.0	76113	IND	6C	ARR	ARR	ARR		Eckert,A
		1.0- 3.0	76112	IND	6D	ARR	ARR	ARR		Flori,R
		1.0- 3.0	76114	IND	6E	ARR	ARR	ARR		Hendrix,R
		1.0- 3.0	76390	IND	6F	ARR	ARR	ARR		Imqam,A
		1.0- 3.0	76940	IND	6G	ARR	ARR	ARR		Wei,M
3320	<b>Petrophysics</b> Prerequisites: Preceded or accompanied by both Pet Eng 2510 and Physics 1135.	3.0- 3.0		LEC	1A	TTh	11:00 - 11:50 am	BERTELS	00B10	Imqam,A
		3.0- 3.0	77144	LAB	3A	T	01:00 - 02:20 pm	MCNT	00112	Imqam,A
		3.0- 3.0	77145	LAB	3B	T	02:30 - 03:50 pm	MCNT	00112	Imqam,A
		3.0- 3.0	77146	LAB	3C	T	04:00 - 05:20 pm	MCNT	00112	Imqam,A

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR	
4001 <b>Special Topics</b> Prerequisites: Pet Eng 3520.	3.0- 3.0		LEC	1A	ARR	ARR	ARR		Flori,R	
			Pet Eng Applications of MATLAB							
	3.0- 3.0	78277	LAB	3A	TTh	12:30 - 01:45 pm	MCNT	00114	Flori,R	
			Pet Eng Applications of MATLAB							
4010 <b>Ethics and Professionalism</b> Prerequisite: Senior standing in Pet Eng.	1.0- 1.0	78240	LEC	1A	M	03:00 - 03:50 pm	MCNT	00211	Dunn Norman,S	
4111 <b>Fundamental Digital Applications In Petroleum Engineering</b> Prerequisite: Junior Standing.	3.0- 3.0	78370	LEC	1A	MW	10:00 - 10:50 am	MCNT	000B14	Hilgedick,S	
			<b>Prerequisite</b>							
			<b>Prerequisite</b>							
4210 <b>Drilling and Well Design</b> Prerequisite: Preceded or accompanied by Civ Eng 3330.	3.0- 3.0		LEC	1A	TTh	08:00 - 08:50 am	BERTELS	00B10	Hendrix,R	
	3.0- 3.0	75468	LAB	3A	M	02:00 - 03:50 pm	MCNT	00115		
	3.0- 3.0	76197	LAB	3B	M	04:00 - 05:50 pm	MCNT	00115		
	3.0- 3.0	76264	LAB	3C	T	02:00 - 03:50 pm	MCNT	00115		
4421 <b>Artificial Lift</b> Prerequisite: Pet Eng 3410.	3.0- 3.0	76196	LEC	1A	TTh	09:30 - 10:45 am	MCNT	00130	Dunn Norman,S	
			LEC	1A	ARR	ARR	ARR			
4441 <b>Well Stimulation</b> Prerequisites: Pet Eng 3520 and Pet Eng 3330.	3.0- 3.0	77324	LEC	1A	M	04:00 - 06:30 pm	BCH	00121	Britt,L	
4511 <b>Applied Petroleum Reservoir Engineering</b> Prerequisites: Pet Eng 3520 and 3529.	3.0- 3.0	76515	LEC	1A	MWF	09:00 - 09:50 am	MCNT	00206	Flori,R	
4520 <b>Well Test Analysis</b> Prerequisite: Pet Eng 3520.	3.0- 3.0		LEC	1A	MW	11:00 - 11:50 am	SHNK	000G3	Flori,R	
	3.0- 3.0	75940	LAB	3A	Th	02:00 - 03:45 pm	CH	00105	Flori,R	
4590 <b>Petroleum Economics and Asset Valuation</b> Prerequisites: Pet Eng 3520, Econ 1100 or Econ 1200.	3.0- 3.0	78372	LEC	1A	TTh	09:30 - 10:45 am	TMH	00251	Hilgedick,S	
			<b>Prerequisite</b>							
4710 <b>Finite Element Analysis with Applications in Petroleum Engineering</b> Prerequisites: Pet Eng 3520, Geology 3310, and Math 3304.	3.0- 3.0		LEC	1A	MWF	08:00 - 08:50 am	MCNT	00130	Eckert,A	
	3.0- 3.0	76874	LAB	3A	W	02:30 - 05:00 pm	MCNT	00130	Eckert,A	
4720 <b>Mechanical Earth Modeling</b> Prerequisites: Pet Eng 3310 and Geology 3310.	3.0- 3.0	76041	LEC	1A	MWF	10:00 - 10:50 am	MCNT	00211	Eckert,A	
4811 <b>Offshore Petroleum Technology</b>	3.0- 3.0	77745	LEC	1A	TTh	11:00 - 12:15 pm	MCNT	00130	Hendrix,R	
			<b>Communication Emphasized</b>							
5000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	76147	IND	6A	ARR	ARR	ARR		Bai,B	
	0.0- 6.0	75472	IND	6B	ARR	ARR	ARR		Dunn Norman,S	
	0.0- 6.0	76148	IND	6C	ARR	ARR	ARR		Flori,R	
	0.0- 6.0	76391	IND	6D	ARR	ARR	ARR		Hendrix,R	
	0.0- 6.0	76392	IND	6E	ARR	ARR	ARR		Hilgedick,S	
	0.0- 6.0	77790	IND	6F	ARR	ARR	ARR		Imqam,A	
	0.0- 6.0	77921	IND	6G	ARR	ARR	ARR		Wei,M	
5001 <b>Special Topics</b> Prerequisites: Pet Eng 4720.	3.0- 3.0	78085	LEC	1A	<b>CANCELLED</b>					
5040 <b>Oral Examination</b> Student will be billed for one credit hour not required for students otherwise enrolled. Graduate Office permission required.	0.0- 0.0	75477	IND	6A	ARR	ARR	ARR		Flori,R	
5085 <b>Internship</b> DE students only.	0.0-15.0	75476	IND	6A	ARR	ARR	ARR		Flori,R	
5099 <b>Research</b> Prerequisite: Consent of instructor required.	0.0-12.0	75473	IND	6A	ARR	ARR	ARR		Bai,B	
	0.0-12.0	75474	IND	6B	ARR	ARR	ARR		Dunn Norman,S	
	0.0-12.0	76116	IND	6C	ARR	ARR	ARR		Eckert,A	
	0.0-12.0	76115	IND	6D	ARR	ARR	ARR		Flori,R	
	0.0-12.0	75475	IND	6E	ARR	ARR	ARR		Hendrix,R	
	0.0-12.0	76323	IND	6F	ARR	ARR	ARR		Imqam,A	
	0.0-12.0	77922	IND	6G	ARR	ARR	ARR		Wei,M	
6001 <b>Special Topics</b> Prerequisites: Graduate Standing.	3.0- 3.0		LEC	1A	MW	09:00 - 10:30 am	MCNT	00130	Wei,M	
			Applic of Data Analyt Pet E							
	3.0- 3.0		LEC	1B	ARR	ARR	ARR		Flori,R	
			Adv Pet Eng Appl MATLAB							
	3.0- 3.0	78314	LEC	1C	MWF	09:00 - 09:50 am	MCNT	00206	Flori,R	
			Adv Applied Res Eng							

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
	3.0- 3.0	78239	LAB	3A	ARR	ARR	ARR		Wei,M
			Applic of Data Analyt Pet E						
	3.0- 3.0	78279	LAB	3B	TTh	12:30 - 01:45 pm	MCNT	00114	Flori,R
			Adv Pet Eng Appl MATLAB						
6050 <b>Continuous Registration</b> Doctoral students only. Graduate Office permission required.	1.0- 1.0	75478	IND	6A	ARR	ARR	ARR		Flori,R
6431 <b>Advanced Well Completion Design</b> Prerequisites: Pet Eng 3520. Students may not earn credit for both Pet Eng 4431 and Pet Eng 6431.	3.0- 3.0	77708	LEC	1A	T	12:30 - 03:15 pm	MCNT	00130	Dunn Norman,S
6441 <b>Advanced Well Stimulation</b> Prerequisites: Pet Eng 3520 and Pet Eng 3310.	3.0- 3.0	76875	LEC	1A	M	04:00 - 06:30 pm	BCH	00121	Britt,L
6521 <b>Advanced Well Test Analysis</b> Prerequisites: Pet Eng 3520 and Pet Eng 4520.	3.0- 3.0		LEC	1A	MW	11:00 - 11:50 am	SHNK	000G3	Flori,R
	3.0- 3.0	76662	LAB	3A	Th	02:00 - 03:45 pm	CH	00105	Flori,R
6621 <b>Advanced Applied Reservoir Simulation</b> Prerequisite: Pet Eng 5621.	3.0- 3.0	76941	LEC	1A	MW	01:00 - 02:15 pm	MCNT	00130	Wei,M
6631 <b>A Survey Of Improved Recovery Processes</b> Prerequisite: Pet Eng 4611.	3.0- 3.0	77923	LEC	1A	Th	07:00 - 09:30 pm	MCNT	00130	Bai,B

## Philosophy

1105 <b>Introduction To Philosophy</b> Prerequisite: Entrance requirements.	3.0- 3.0	76162	LEC	1A	TTh	11:00 - 12:15 pm	H-SS	00204	Reed,R
			<b>MOTR PHIL 100: Introduction to Philosophy</b>						
	3.0- 3.0	77347	LEC	1B	TTh	12:30 - 01:45 pm	H-SS	00204	Reed,R
			<b>MOTR PHIL 100: Introduction to Philosophy</b>						
	3.0- 3.0	76366	LEC	1C	MWF	09:00 - 09:50 am	CH	00103	
			<b>MOTR PHIL 100: Introduction to Philosophy</b>						
1115 <b>Introduction To Logic</b> Prerequisite: Entrance requirements.	3.0- 3.0	76950	LEC	1A	TTh	11:00 - 12:15 pm	IDE	000G4A	Finke,D
			<b>MOTR PHIL 101: Introduction to Logic</b>						
	3.0- 3.0	75479	LEC	1B	TTh	02:00 - 03:15 pm	CS	00203	Finke,D
			<b>MOTR PHIL 101: Introduction to Logic</b>						
	3.0- 3.0	76510	LEC	1C	ARR	ARR	ARR		Finke,D
			<b>MOTR PHIL 101: Introduction to Logic</b>						
1130 <b>Introduction to Ethics</b>	3.0- 3.0	77169	LEC	1A	MWF	01:00 - 01:50 pm	CH	00103	
			<b>MOTR PHIL 102: Introduction to Ethics</b>						
3225 <b>Engineering Ethics</b> Prerequisite: Sophomore standing or above.	3.0- 3.0	76857	LEC	1A	MWF	01:00 - 01:50 pm	IDE	00202	Dittmer,J
	3.0- 3.0	76778	LEC	1B	MWF	02:00 - 02:50 pm	IDE	00202	Dittmer,J
3235 <b>Business Ethics</b> Prerequisite: Sophomore standing or above.	3.0- 3.0	76951	LEC	1A	MWF	10:00 - 10:50 am	H-SS	00104	Taylor,A
	3.0- 3.0	76858	LEC	1B	MWF	11:00 - 11:50 am	H-SS	00104	Taylor,A
3276 <b>Thematics Studies in Film and Philosophy</b> Prerequisites: Art 1185 or one philosophy course, or junior standing. (Co-listed with Art 3276)	3.0- 3.0	78017	LEC	1A	M	06:00 - 08:30 pm	H-SS	00104	Dittmer,J
4320 <b>Minds And Machines</b> Prerequisite: Any philosophy course.	3.0- 3.0	77410	LEC	1A	TTh	12:30 - 01:45 pm	H-SS	000G7	Finke,D
4345 <b>Philosophy Of Science</b> Prerequisite: Any philosophy course.	3.0- 3.0	76665	LEC	1A	ARR	ARR	ARR		Finke,D
			<b>UM Shared Course-Secondary</b>						

## Physical Education

1100 <b>Weight Training</b> (Men and Women)	1.0- 1.0	75481	LAB	3A	<b>CANCELLED</b>				
	1.0- 1.0	75482	LAB	3B	<b>CANCELLED</b>				
	1.0- 1.0	76566	LAB	3C	<b>CANCELLED</b>				
1108 <b>Beginning Racquetball</b>	1.0- 1.0	75480	LAB	3A	<b>CANCELLED</b>				

## Physics

1101 <b>Introduction To Physics</b>	1.0- 1.0	75483	LEC	1A	T	02:00 - 02:50 pm	PHYS	00127	Story,J
1119 <b>General Physics Laboratory</b> Prerequisites: Preceded or accompanied by either Physics 1111 or Physics 1145.	1.0- 1.0	75484	LAB	3A	T	03:00 - 04:50 pm	PHYS	00215	Waddill,G
			<b>MOTR PHYS 150L: Physics I with Lab</b>						
	1.0- 1.0	75485	LAB	3B	W	06:00 - 07:50 pm	PHYS	00215	Waddill,G
			<b>MOTR PHYS 150L: Physics I with Lab</b>						

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
1135 <b>Engineering Physics I</b> Prerequisite: Math 1208 or 1214.	0.0- 0.0	75486	LEC	1AA	TTh	09:00 - 09:50 am	PHYS	00104	Vojta,A
	Every student enrolled in Phys 1135 must be enrolled in a Lec AA, or BB, or CC and a RSD A, B, C, etc. and a Lab L01, L02, L03, etc. Students in Phys 1135 are scheduled for group exams from 5:00 to 6:00 on Wednesdays: Sept 19, Oct 17, and Nov 14th. <b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>								
	0.0- 0.0	75487	LEC	1BB	TTh	10:00 - 10:50 am	PHYS	00104	Vojta,A
Every student enrolled in Phys 1135 must be enrolled in a Lec AA, or BB, or CC and a RSD A, B, C, etc. and a Lab L01, L02, L03, etc. Students in Phys 1135 are scheduled for group exams from 5:00 to 6:00 on Wednesdays: Sept 19, Oct 17, and Nov 14th. <b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	0.0- 0.0	75873	LEC	1CC	ARR	ARR	ARR		Vojta,A
Every student enrolled in Phys 1135 must be enrolled in a Lec AA, or BB, or CC and a RSD A, B, C, etc. and a Lab L01, L02, L03, etc. Students in Phys 1135 are scheduled for group exams from 5:00 to 6:00 on Wednesdays: Sept 19, Oct 17, and Nov 14th. <b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	4.0- 4.0	75488	RSD	2A	WF	08:00 - 08:50 am	PHYS	00130	Vojta,A
<b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	4.0- 4.0	75992	RSD	2B	WF	08:00 - 08:50 am	PHYS	00129	Vojta,A
<b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	4.0- 4.0	75489	RSD	2C	WF	09:00 - 09:50 am	PHYS	00130	Vojta,A
<b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	4.0- 4.0	75490	RSD	2D	WF	09:00 - 09:50 am	PHYS	00129	Vojta,A
<b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	4.0- 4.0	75491	RSD	2E	WF	10:00 - 10:50 am	PHYS	00130	Vojta,A
<b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	4.0- 4.0	75492	RSD	2F	WF	10:00 - 10:50 am	PHYS	00129	Vojta,A
<b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	4.0- 4.0	75493	RSD	2G	WF	09:00 - 09:50 am	IDE	00202	Vojta,A
<b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	4.0- 4.0	75494	RSD	2H	WF	11:00 - 11:50 am	PHYS	00130	Vojta,A
<b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	4.0- 4.0	75874	RSD	2J	WF	11:00 - 11:50 am	PHYS	00129	Vojta,A
<b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	4.0- 4.0	75889	RSD	2K	WF	12:00 - 12:50 pm	PHYS	00130	Vojta,A
<b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	4.0- 4.0	76245	RSD	2L	WF	12:00 - 12:50 pm	PHYS	00129	Vojta,A
<b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	4.0- 4.0	76615	RSD	2M	WF	01:00 - 01:50 pm	PHYS	00130	Vojta,A
<b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									
	4.0- 4.0	76616	RSD	2N	WF	01:00 - 01:50 pm	PHYS	00129	Vojta,A
<b>See 'Notes' for Evening Exams</b> <b>MOTR PHYS 200L: Advanced Physics I with Lab</b>									

4.0-4.0	77086	RSD	2P	WF	10:00 - 10:50 am	IDE	00202	Vojta,A	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75495	LAB	3L01	M	01:00 - 02:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75496	LAB	3L02	M	01:00 - 02:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75497	LAB	3L03	M	03:00 - 04:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75498	LAB	3L04	M	03:00 - 04:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75499	LAB	3L05	M	06:00 - 07:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75500	LAB	3L06	M	06:00 - 07:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75501	LAB	3L08	T	11:00 - 12:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75502	LAB	3L09	T	01:00 - 02:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75503	LAB	3L10	T	01:00 - 02:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75504	LAB	3L12	T	06:00 - 07:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75505	LAB	3L13	W	01:00 - 02:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75506	LAB	3L14	W	01:00 - 02:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75507	LAB	3L15	W	03:00 - 04:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75875	LAB	3L17	Th	11:00 - 12:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75993	LAB	3L07	T	11:00 - 12:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75994	LAB	3L11	T	06:00 - 07:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	75995	LAB	3L16	W	03:00 - 04:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	76129	LAB	3L18	Th	11:00 - 12:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	76246	LAB	3L19	Th	01:00 - 02:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	76618	LAB	3L21	Th	03:00 - 04:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							
0.0-0.0	76619	LAB	3L22	Th	03:00 - 04:50 pm	PHYS	00215	Waddill,G	
		<b>See 'Notes' for Evening Exams</b>							
		<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>							

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
	0.0- 0.0	77060	LAB	3L23	Th	06:00 - 07:50 pm	PHYS	00215	Waddill,G
			<b>See 'Notes' for Evening Exams</b>						
			<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>						
	0.0- 0.0	77061	LAB	3L24	Th	06:00 - 07:50 pm	PHYS	00215	Waddill,G
			<b>See 'Notes' for Evening Exams</b>						
			<b>MOTR PHYS 200L: Advanced Physics I with Lab</b>						
1145 <b>College Physics I</b> Prerequisites: Math 1160 and either of Math 1120 or Math 1140.	3.0- 3.0	75805	LEC	1A	MWF	08:00 - 08:50 am	PHYS	00104	Vojta,A
			<b>MOTR PHYS 150: Physics I</b>						
			<b>MOTR PHYS 150L: Physics I with Lab</b>						
2135 <b>Engineering Physics II</b> Prerequisites: Physics 1135 or Physics 1111, Math 1221 or Math 1215.	0.0- 0.0	75673	LEC	1AA	MW	09:00 - 09:50 am	PHYS	00104	Musser,J
			Every student enrolled in Phys 2135 must be enrolled in a Lec AA, BB or CC and a RSD, A, B, C, etc, and a Lab L01, L02, etc. Students in Physics 2135, are scheduled for group exams from 5:00 to 6:00 on Tuesdays: Sept 18, Oct 16, and Nov 13.						
			<b>See 'Notes' for Evening Exams</b>						
	0.0- 0.0	75508	LEC	1BB	MW	10:00 - 10:50 am	PHYS	00104	Musser,J
			Every student enrolled in Phys 2135 must be enrolled in a Lec AA, BB or CC and a RSD, A, B, C, etc, and a Lab L01, L02, etc. Students in Physics 2135, are scheduled for group exams from 5:00 to 6:00 on Tuesdays: Sept 18, Oct 16, and Nov 13.						
			<b>See 'Notes' for Evening Exams</b>						
	0.0- 0.0	75509	LEC	1CC	ARR	ARR	ARR		Musser,J
			Every student enrolled in Phys 2135 must be enrolled in a Lec AA, BB or CC and a RSD, A, B, C, etc, and a Lab L01, L02, etc. Students in Physics 2135, are scheduled for group exams from 5:00 to 6:00 on Tuesdays: Sept 18, Oct 16, and Nov 13.						
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	75510	RSD	2A	TTh	08:00 - 08:50 am	PHYS	00130	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	75933	RSD	2B	TTh	08:00 - 08:50 am	PHYS	00129	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	75511	RSD	2C	TTh	09:00 - 09:50 am	PHYS	00130	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	75512	RSD	2D	TTh	09:00 - 09:50 am	PHYS	00129	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	75513	RSD	2E	TTh	09:00 - 09:50 am	BCH	00314	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	75514	RSD	2F	TTh	10:00 - 10:50 am	PHYS	00130	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	75515	RSD	2G	TTh	10:00 - 10:50 am	PHYS	00129	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	75516	RSD	2H	TTh	10:00 - 10:50 am	TMH	00249	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	75517	RSD	2J	TTh	11:00 - 11:50 am	PHYS	00130	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	75778	RSD	2K	TTh	11:00 - 11:50 am	PHYS	00129	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	75708	RSD	2L	TTh	11:00 - 11:50 am	BCH	00216	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	75518	RSD	2M	TTh	12:00 - 12:50 pm	PHYS	00130	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	76620	RSD	2N	TTh	12:00 - 12:50 pm	BCH	00216	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	76621	RSD	2P	TTh	12:00 - 12:50 pm	PHYS	00129	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	76622	RSD	2Q	TTh	01:00 - 01:50 pm	PHYS	00130	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	4.0- 4.0	76623	RSD	2R	TTh	01:00 - 01:50 pm	PHYS	00129	Musser,J
			<b>See 'Notes' for Evening Exams</b>						
	0.0- 0.0	75519	LAB	3L01	M	01:00 - 02:50 pm	PHYS	00214	Waddill,G
			<b>See 'Notes' for Evening Exams</b>						
	0.0- 0.0	75520	LAB	3L02	M	01:00 - 02:50 pm	PHYS	00214	Waddill,G
			<b>See 'Notes' for Evening Exams</b>						

		0.0- 0.0	75521	LAB	3L03	M		03:00 - 04:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75522	LAB	3L04	M		03:00 - 04:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75523	LAB	3L05	M		06:00 - 07:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75524	LAB	3L06	M		06:00 - 07:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75525	LAB	3L07	W		11:00 - 12:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75526	LAB	3L09	T		01:00 - 02:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75527	LAB	3L10	T		01:00 - 02:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75528	LAB	3L11	T		03:00 - 04:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75529	LAB	3L12	T		03:00 - 04:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75530	LAB	3L13	W		01:00 - 02:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75531	LAB	3L14	W		01:00 - 02:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75532	LAB	3L15	W		03:00 - 04:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75533	LAB	3L16	W		03:00 - 04:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75534	LAB	3L17	W		06:00 - 07:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75709	LAB	3L18	W		06:00 - 07:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75767	LAB	3L19	F		11:00 - 12:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	75779	LAB	3L20	F		11:00 - 12:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	76346	LAB	3L21	Th		01:00 - 02:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	76624	LAB	3L22	Th		01:00 - 02:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	76625	LAB	3L23	Th		03:00 - 04:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	76626	LAB	3L24	Th		03:00 - 04:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	76627	LAB	3L25	Th		06:00 - 07:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	76628	LAB	3L26	Th		06:00 - 07:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	76629	LAB	3L27	F		01:00 - 02:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	76918	LAB	3L28	F		01:00 - 02:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
		0.0- 0.0	77258	LAB	3L08	W		11:00 - 12:50 pm	PHYS	00214	Waddill,G
				<b>See 'Notes' for Evening Exams</b>							
2305	<b>Introduction To Modern Physics</b> Prerequisites: Math 2222 and Physics 2135 or 2111.	3.0- 3.0	75535	LEC	1A	MWF		02:00 - 02:50 pm	PHYS	00104	Story,J
3000	<b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75536	IND	6A	ARR	ARR		ARR		Peacher,J
3119	<b>Advanced Physics Laboratory I</b> Prerequisite: Physics 2129.	3.0- 3.0	75538	LAB	3A	TTh		12:30 - 03:15 pm	PHYS	00219	Kurter,C
3129	<b>Advanced Physics Laboratory II</b> Prerequisite: Physics 2129.	3.0- 3.0	75539	LAB	3A	TTh		12:30 - 03:15 pm	PHYS	00219	Kurter,C
3201	<b>Physical Mechanics</b> Prerequisite: Physics 2401.	3.0- 3.0	76307	LEC	1A	TTh		11:00 - 12:15 pm	PHYS	00127	Chernatynskiy,A



CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
3311 <b>Modern Physics II</b> Prerequisites: Math 3304 or 3329, and either Physics 2305 with consent of instructor or Physics 2311.	3.0- 3.0	75750	LEC	1A	MWF	01:00 - 01:50 pm	PHYS	00127	Schulz,M
4099 <b>Undergraduate Research</b>	0.0- 6.0	75542	IND	6A	ARR	ARR	ARR		Chernatynskiy,A
	0.0- 6.0	75543	IND	6B	ARR	ARR	ARR		Fischer,D
	0.0- 6.0	75544	IND	6C	ARR	ARR	ARR		Hale,B
	0.0- 6.0	75545	IND	6D	ARR	ARR	ARR		Hor,Y
	0.0- 6.0	75806	IND	6E	ARR	ARR	ARR		Jentschura,U
	0.0- 6.0	75546	IND	6F	ARR	ARR	ARR		Kurter,C
	0.0- 6.0	75547	IND	6G	ARR	ARR	ARR		Madison,D
	0.0- 6.0	75548	IND	6H	ARR	ARR	ARR		Medvedeva,I
	0.0- 6.0	75549	IND	6J	ARR	ARR	ARR		Peacher,J
	0.0- 6.0	75550	IND	6K	ARR	ARR	ARR		Schulz,M
	0.0- 6.0	75551	IND	6L	ARR	ARR	ARR		Story,J
	0.0- 6.0	75807	IND	6M	ARR	ARR	ARR		Vojta,S
	0.0- 6.0	76084	IND	6N	ARR	ARR	ARR		Waddill,G
	0.0- 6.0	76993	IND	6P	ARR	ARR	ARR		Wilemski,G
	0.0- 6.0	76994	IND	6Q	ARR	ARR	ARR		Yamilov,A
4211 <b>Electricity And Magnetism II</b> Prerequisite: Physics 3211.	3.0- 3.0	75537	LEC	1A	MWF	10:00 - 10:50 am	PHYS	00127	Peacher,J
4301 <b>Introduction To Quantum Mechanics</b> Prerequisites: Physics 2305 or 2311, 2401.	3.0- 3.0	75540	LEC	1A	MWF	11:00 - 11:50 am	PHYS	00127	Story,J
4503 <b>Classical Optics</b> Prerequisites: Math 2222 and Physics 2135 or 2111. (Co-listed with Elec Eng 5200)	3.0- 3.0	78162	LEC	1A	MWF	09:00 - 09:50 am	PHYS	00127	Yamilov,A
4523 <b>Principles Of Engineering Materials</b> (Co-listed with Aero Eng 3877, Chem Eng 5300, Met Eng 5810, Cer Eng 5810)	3.0- 3.0	75541	LEC	1A	MWF	08:00 - 08:50 am	MCNT	00216	Newkirk,J
4543 <b>Plasma Physics I</b> Prerequisite: Aero Eng 3131 or Mech Eng 3131 or Physics 3211 or Nuc Eng 3221 or Elec Eng 3600. (Co-listed with Aero Eng 5570, Mech Eng 5570, Nuc Eng 4370)	3.0- 3.0	77981	LEC	1A	TTh	08:00 - 09:15 am	TMH	00249	Han,D
5201 <b>Classical Mechanics I</b> Prerequisites: Math 3304, Physics 3201.	3.0- 3.0	77551	LEC	1A	TTh	12:30 - 01:45 pm	PHYS	00127	Wilemski,G
5413 <b>Chaos, Fractals, and Nonlinear Dynamics</b> Prerequisites: Math 3304; Physics 2135 or Physics 2111.	3.0- 3.0	78164	LEC	1A	MWF	03:00 - 03:50 pm	PHYS	00127	Vojta,S
6000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75552	IND	6A	ARR	ARR	ARR		Parris,P
	0.0- 6.0	75553	IND	6B	ARR	ARR	ARR		Peacher,J
	0.0- 6.0	75554	IND	6C	ARR	ARR	ARR		Story,J
6002 <b>Coop Registration</b>	0.0- 1.0	75573	IND	6A	ARR	ARR	ARR		Peacher,J
6010 <b>Seminar</b>	0.0- 6.0	75556	RSD	2A	Th	03:30 - 05:20 pm	PHYS	00104	Chernatynskiy,A
6040 <b>Oral Examination</b> Student will be billed for one credit hour. Not required for students otherwise enrolled. Graduate Office permission required.	0.0- 0.0	75572	IND	6A	ARR	ARR	ARR		Waddill,G
6050 <b>Continuous Registration</b> Doctoral students only. Graduate Office permission required.	1.0- 1.0	75574	IND	6A	ARR	ARR	ARR		Waddill,G
6099 <b>Research</b> Prerequisite: Consent of instructor required.	0.0-15.0	75557	IND	6A	ARR	ARR	ARR		Chernatynskiy,A
	0.0-15.0	75558	IND	6B	ARR	ARR	ARR		Fischer,D
	0.0-15.0	75559	IND	6C	ARR	ARR	ARR		Hor,Y
	0.0-15.0	75560	IND	6D	ARR	ARR	ARR		Jentschura,U
	0.0-15.0	75561	IND	6E	ARR	ARR	ARR		Kurter,C
	0.0-15.0	75562	IND	6F	ARR	ARR	ARR		Madison,D
	0.0-15.0	75808	IND	6G	ARR	ARR	ARR		Medvedeva,I
	0.0-15.0	75563	IND	6H	ARR	ARR	ARR		Parris,P
	0.0-15.0	75564	IND	6J	ARR	ARR	ARR		Peacher,J
	0.0-15.0	75565	IND	6K	ARR	ARR	ARR		Schulz,M
	0.0-15.0	75566	IND	6L	ARR	ARR	ARR		Story,J
	0.0-15.0	75567	IND	6M	ARR	ARR	ARR		Vojta,S

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
	0.0-15.0	75568	IND	6N	ARR	ARR	ARR		Waddill,G
	0.0-15.0	75569	IND	6P	ARR	ARR	ARR		Wilemski,G
	0.0-15.0	75570	IND	6Q	ARR	ARR	ARR		Yamilov,A
6301 <b>Quantum Mechanics II</b> Prerequisite: Physics 5301.	3.0- 3.0	76008	LEC	1A	TTh	09:30 - 10:45 am	PHYS	00127	Parris,P

**UM Shared Course-Primary**

## Political Science

1200 <b>American Government</b>	3.0- 3.0	76220	LEC	1A	MWF	01:00 - 01:50 pm	H-SS	00201	Meagher,M
			<b>MOTR POSC 101: American Government</b>						
	3.0- 3.0	76221	LEC	1B	MWF	02:00 - 02:50 pm	H-SS	00201	Meagher,M
			<b>MOTR POSC 101: American Government</b>						
	3.0- 3.0	76962	LEC	1C	TTh	09:30 - 10:45 am	CS	00216	Isaac,T
			<b>MOTR POSC 101: American Government</b>						
	3.0- 3.0	76963	LEC	1D	TTh	12:30 - 01:45 pm	CS	00207	Isaac,T
			<b>MOTR POSC 101: American Government</b>						
	3.0- 3.0	77557	LEC	1E	TTh	02:00 - 03:15 pm	MCNT	00210	Krolikowski,A
			<b>MOTR POSC 101: American Government</b>						
	3.0- 3.0	77558	LEC	1F	TTh	12:30 - 01:45 pm	MCNT	00210	Krolikowski,A
			<b>MOTR POSC 101: American Government</b>						
2500 <b>International Relations</b> Prerequisite: Pol Sci 1200 or History 1300 or 1310.	3.0- 3.0	77897	LEC	1A	TTh	03:30 - 04:45 pm	H-SS	00201	Isaac,T
			<b>MOTR POSC 201: International Relations</b>						
3001 <b>Special Topics</b>	3.0- 3.0	78212	LEC	1A	ARR	ARR	ARR		Krolikowski,A
			Environmental Policy						
			<b>UM Shared Course-Secondary</b>						
	0.0- 6.0	78220	LEC	1B	ARR	ARR	ARR		Meagher,M
			Politics of Poverty & Welfare						
			Class will meet the 2nd 8 weeks of the semester.						
			<b>UM Shared Course-Secondary</b>						
3762 <b>American Foreign Policy Since 1945</b> Prerequisite: History 1310 or Pol Sci 1200. (Co-listed with History 3762)	3.0- 3.0	77890	LEC	1A	W	06:00 - 08:45 pm	H-SS	00103	Meagher,M
4000 <b>Special Problems And Readings</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75575	IND	6A	ARR	ARR	ARR		Meagher,M
4085 <b>Political Science Internship</b> Prerequisite: Pol Sci 1200 or Pol Sci 1100.	0.0- 6.0	75576	IND	6A	ARR	ARR	ARR		Meagher,M

## Psychology

1100 <b>Introduction to Psychology</b>	1.0- 1.0	75753	LEC	1A	T	02:00 - 02:50 pm	H-SS	00103	Murray,S	
1101 <b>General Psychology</b>	3.0- 3.0	75577	LEC	1A	TTh	03:30 - 04:45 pm	TMH	00199	Baker,D	
			<b>MOTR PSYC 100: General Psychology</b>							
	3.0- 3.0	75578	LEC	1B	MWF	10:00 - 10:50 am	H-SS	000G5	Krueger,M	
			<b>MOTR PSYC 100: General Psychology</b>							
	3.0- 3.0	75579	LEC	1C	T	06:00 - 08:45 pm	H-SS	000G5	Stratman,T	
			<b>MOTR PSYC 100: General Psychology</b>							
	3.0- 3.0	77236	LEC	1D	<b>CANCELLED</b>					
2300 <b>Educational Psychology</b> Prerequisite: Psych 1101. (Co-listed with Educ 2102)	3.0- 3.0	75580	LEC	1A	M	04:00 - 06:30 pm	BCH	00124	Spooner,P	
3001 <b>Special Topics</b> Prerequisites: Psych 1101.	3.0- 3.0	78054	LEC	1B	<b>CANCELLED</b>					
3310 <b>Developmental Psychology</b> Prerequisite: Psych 1101.	3.0- 3.0	75581	LEC	1A	MWF	11:00 - 11:50 am	BCH	00124	Krueger,M	
			<b>MOTR PSYC 200: Lifespan Human Development</b>							
3400 <b>Theories Of Learning</b> Prerequisite: Psych 1101.	3.0- 3.0	76160	LEC	1A	MWF	02:00 - 02:50 pm	CS	00204	Krueger,M	
3501 <b>Drugs and Behavior</b> Prerequisites: Psych 1101.	3.0- 3.0	78303	LEC	1A	MWF	12:00 - 12:50 pm	H-SS	000G7	Henslee,A	
4000 <b>Special Problems And Readings In Psychology</b>	0.0- 6.0	75584	IND	6A	ARR	ARR	ARR		Baker,D	
	0.0- 6.0	75582	IND	6B	ARR	ARR	ARR		Belfi,A	
	0.0- 6.0	75583	IND	6C	ARR	ARR	ARR		Burns,D	
	0.0- 6.0	76299	IND	6D	ARR	ARR	ARR		Henslee,A	
	0.0- 6.0	76468	IND	6E	ARR	ARR	ARR		Kueny,C	
	0.0- 6.0	77349	IND	6F	ARR	ARR	ARR		Murray,S	
	0.0- 6.0	77350	IND	6G	ARR	ARR	ARR		Shank,D	

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
	0.0- 6.0	77351	IND	6H	ARR	ARR	ARR		Stone,N
	0.0- 6.0	77352	IND	6J	ARR	ARR	ARR		Weidner,N
4099 <b>Undergraduate Research</b> Prerequisite: Instructor consent.	0.0- 6.0	75765	IND	6A	ARR	ARR	ARR		Baker,D
	0.0- 6.0	75587	IND	6B	ARR	ARR	ARR		Belfi,A
	0.0- 6.0	75588	IND	6C	ARR	ARR	ARR		Cundiff,J
	0.0- 6.0	76300	IND	6D	ARR	ARR	ARR		Henslee,A
	0.0- 6.0	77647	IND	6E	ARR	ARR	ARR		Kueny,C
	0.0- 6.0	77870	IND	6F	ARR	ARR	ARR		Murray,S
	0.0- 6.0	78046	IND	6G	ARR	ARR	ARR		Stone,N
	0.0- 6.0	78159	IND	6H	ARR	ARR	ARR		Weidner,N
	0.0- 6.0	78273	IND	6J	ARR	ARR	ARR		Shank,D
	0.0- 6.0	78274	IND	6K	ARR	ARR	ARR		Burns,D
4310 <b>Psychology Of The Exceptional Child</b> Prerequisite: Psych 1101. (Co-listed with Educ 4310)	3.0- 3.0	75586	LEC	1A	MWF	01:00 - 01:50 pm	H-SS	00103	Krueger,M
4400 <b>Cognitive Psychology</b> Prerequisite: Psych 1101.	3.0- 3.0	78043	LEC	1A	TTh	12:30 - 01:45 pm	FUL	00227	Belfi,A
4410 <b>Neuroscience</b> Prerequisite: Psych 1101.	3.0- 3.0	78044	LEC	1A	TTh	09:30 - 10:45 am	MCNT	00206	Belfi,A
4411 <b>Sensation and Perception</b> Prerequisite: Psych 1101.	3.0- 3.0	78045	LEC	1A	TTh	11:00 - 12:15 pm	BCH	00314	Burns,D
4501 <b>Abnormal Psychology</b> Prerequisite: Psych 1101.	3.0- 3.0	76059	LEC	1A	MWF	02:00 - 02:50 pm	CS	00202	Henslee,A
4600 <b>Social Psychology</b> Prerequisite: Psych 1101.	3.0- 3.0	76853	LEC	1A	MWF	10:00 - 10:50 am	CS	00204	Shank,D
4601 <b>Group Dynamics</b> Prerequisite: Psych 1101.	3.0- 3.0	77237	LEC	1A	MWF	03:00 - 03:50 pm	BCH	00317	Shank,D
4602 <b>Organizational Psychology</b> Prerequisite: Psych 1101.	3.0- 3.0	78047	LEC	1A	<b>CANCELLED</b>				
4700 <b>Industrial Psychology</b> Prerequisite: Psych 1101.	3.0- 3.0	76469	LEC	1A	TTh	12:30 - 01:45 pm	CS	00204	Stone,N
4710 <b>Human Factors</b> Prerequisite: Psych 1101. (Co-listed with Eng Mgt 4330)	3.0- 3.0	75585	LEC	1A	TTh	09:30 - 10:45 am	TMH	00295	Murray,S
4993 <b>Psychology of Gender</b> Prerequisite: Psych 1101.	3.0- 3.0	76058	LEC	1A	<b>CANCELLED</b>				
5000 <b>Special Problems</b>	0.0- 6.0	77359	IND	6A	ARR	ARR	ARR		Baker,D
5020 <b>Introduction to Industrial-Organizational Psychology</b> Prerequisites: Graduate Standing.	3.0- 3.0	78299	LEC	1A	Th	04:00 - 06:30 pm	H-SS	00105	Kueny,C
5202 <b>Applied Psychological Data Analysis</b> Prerequisite: Graduate standing.	3.0- 3.0	77546	LEC	1A	M	07:00 - 09:30 pm	H-SS	00105	Burns,D
5210 <b>Advanced Research Methods</b> Prerequisite: Graduate standing.	3.0- 3.0	76854	LEC	1A	W	04:00 - 06:30 pm	H-SS	00105	Weidner,N
5710 <b>Advanced Human Factors</b> (Co-listed with Eng Mgt 5330)	3.0- 3.0	77238	LEC	1A	T	07:00 - 09:30 pm	H-SS	00105	Baker,D
6099 <b>Research</b> Prerequisites: Consent of instructor required.	0.0- 6.0	77105	IND	6A	ARR	ARR	ARR		Baker,D
	0.0- 6.0	77106	IND	6B	ARR	ARR	ARR		Burns,D
	0.0- 6.0	77711	IND	6C	ARR	ARR	ARR		Cundiff,J
	0.0- 6.0	77717	IND	6D	ARR	ARR	ARR		Kueny,C
	0.0- 6.0	78049	IND	6E	ARR	ARR	ARR		Shank,D
	0.0- 6.0	78050	IND	6F	ARR	ARR	ARR		Stone,N
	0.0- 6.0	78160	IND	6H	ARR	ARR	ARR		Weidner,N
6602 <b>Employee Affect and Behavior</b> Prerequisite: Psych 5010.	3.0- 3.0	78051	LEC	1A	M	04:00 - 06:30 pm	H-SS	00105	Kueny,C
6611 <b>Leadership for Engineers</b> Prerequisite: Eng Mgt 5110 or Psych 4602. (Co-listed with Eng Mgt 6112)	3.0- 3.0	76414	LEC	1A	ARR	ARR	ARR		Daughton,W
6702 <b>Personnel Selection</b> Prerequisite: Psych 5700.	3.0- 3.0	77240	LEC	1A	T	04:00 - 06:30 pm	BERTELS	00B12B	Stone,N

## Russian

1101 <b>Elementary Russian I</b> Prerequisite: Entrance requirements.	4.0- 4.0	75589	LEC	1A	TTh	09:30 - 10:45 am	EMGT	00106	Ivliyeva,I
			LEC	1A	ARR	ARR	ARR		
1180 <b>Readings In Science And Literature</b> Prerequisite: Russian 1102.	4.0- 4.0	75590	LEC	1A	TTh	08:00 - 09:15 am	EMGT	00106	Ivliyeva,I
			LEC	1A	ARR	ARR	ARR		

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
3790 <b>Scientific Russian</b> Prerequisite: Russian 1180 or above.	3.0- 3.0	77411	LEC	1A	T	05:00 - 06:40 pm	H-SS	00202	Ivliyeva,I
									One hour arranged.
			LEC	1A	ARR	ARR	ARR		One hour arranged.

## Spanish

1101 <b>Elementary Spanish I</b> Prerequisite: Entrance requirements.	4.0- 4.0	75591	LEC	1A	TTh	09:30 - 10:45 am	EMGT	00102	Porcel,J
									<b>MOTR LANG 103: Spanish I</b>
			LEC	1A	ARR	ARR	ARR		
									<b>MOTR LANG 103: Spanish I</b>
1102 <b>Elementary Spanish II</b> Prerequisite: Spanish 1101.	4.0- 4.0	77259	LEC	1A	TTh	11:00 - 12:15 pm	EMGT	00104	Porcel,J
									<b>MOTR LANG 104: Spanish II</b>
			LEC	1A	ARR	ARR	ARR		
									<b>MOTR LANG 104: Spanish II</b>
1180 <b>Readings And Composition</b> Prerequisite: Spanish 1102.	4.0- 4.0	75941	LEC	1A	MWF	10:00 - 10:50 am	H-SS	00203	
			LEC	1A	ARR	ARR	ARR		
2170 <b>Masterpieces Of Hispanic Literature</b> Prerequisite: Spanish 1180.	3.0- 3.0	78322	LEC	1A	MWF	02:00 - 02:50 pm	H-SS	00103	
4302 <b>Phonetics and Phonology of Spanish</b>	3.0- 3.0	77273	LEC	1A	TTh	12:30 - 01:45 pm	H-SS	000G8	Porcel,J

## Speech & Media Studies

1185 <b>Principles Of Speech</b> Prerequisite: Entrance requirements.	3.0- 3.0	75669	LEC	1A	MWF	09:00 - 09:50 am	H-SS	000G9	James,K
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	75667	LEC	1B	MWF	10:00 - 10:50 am	H-SS	000G9	
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	75668	LEC	1C	MWF	11:00 - 11:50 am	H-SS	000G9	
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	75737	LEC	1D	MWF	01:00 - 01:50 pm	H-SS	000G9	
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	75592	LEC	1E	MWF	02:00 - 02:50 pm	H-SS	000G9	
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	76312	LEC	1F	MWF	03:00 - 03:50 pm	H-SS	000G9	Robertson,T
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	76630	LEC	1G	TTh	11:00 - 12:15 pm	H-SS	000G8	Devault,T
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	75593	LEC	1H	TTh	12:30 - 01:45 pm	H-SS	000G9	James,K
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	75594	LEC	1J	TTh	02:00 - 03:15 pm	H-SS	00104	Devault,T
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	75936	LEC	1K	TTh	03:30 - 04:45 pm	H-SS	00104	Devault,T
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	76557	LEC	1L	TTh	03:30 - 04:45 pm	H-SS	000G9	James,K
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	75965	LEC	1M	TTh	06:00 - 07:15 pm	H-SS	000G9	Haynes,W
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	77746	LEC	1N	TTh	02:00 - 03:15 pm	H-SS	000G9	James,K
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	77763	LEC	1P	MWF	11:00 - 11:50 am	H-SS	000G8	Robertson,T
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>
	3.0- 3.0	78019	LEC	1Q	TTh	09:30 - 10:45 am	H-SS	000G7	James,K
									<b>Communication Intensive</b>
									<b>MOTR COMM 110: Fundamentals of Public Speaking</b>

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
2000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75595	IND	6A	ARR	ARR	ARR		Haynes,W
2181 <b>Communication Theory</b>	3.0- 3.0	75596	LEC	1B	TTh	12:30 - 01:45 pm	H-SS	00104	Devault,T
			<b>Communication Emphasized</b>						
3000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	76045	IND	6A	ARR	ARR	ARR		Haynes,W
	0.0- 6.0	77135	IND	6B	ARR	ARR	ARR		Robertson,T
3221 <b>Fundamentals in Photography</b> Prerequisite: Sp&M S 1185 or 2181 (required for Speech minor credit); Art 1180 or Art 1185 (required for Art minor credit). (Co-listed with Art 3221)	3.0- 3.0	76024	LEC	1A	W	06:30 - 09:15 pm	CSF	00114	Rupert,B
	3.0- 3.0	76633	LEC	1B	Th	06:30 - 09:15 pm	CSF	00114	Rupert,B
	3.0- 3.0	77721	LEC	1C	T	04:30 - 07:30 pm	CSF	00114	Phelan,R
3255 <b>Discussion And Conference Methods</b> Prerequisite: Sp&M S 2181.	3.0- 3.0	78020	LEC	1A	TTh	02:00 - 03:15 pm	CH	00104	Haynes,W
			<b>Communication Emphasized</b>						
3265 <b>Leadership Communication</b> Prerequisites: Sp&M S 2181, 3250.	3.0- 3.0	77412	LEC	1A	MWF	10:00 - 10:50 am	H-SS	000G8	Robertson,T
			<b>Communication Emphasized</b>						
3275 <b>Foundations of Media Communication</b> Prerequisite: Sp&M S 1185.	3.0- 3.0	76359	LEC	1A	MWF	01:00 - 01:50 pm	FUL	00220	Robertson,T
			<b>Communication Emphasized</b>						
4000 <b>Special Problems</b>	0.0- 6.0	75597	IND	6A	ARR	ARR	ARR		Haynes,W
5000 <b>Special Problems</b>	0.0- 6.0	77374	IND	6A	ARR	ARR	ARR		Haynes,W

## Statistics

1115 <b>Statistics For The Social Sciences I</b>	3.0- 3.0	75598	LEC	1A	TTh	03:30 - 04:45 pm	EECH	00104	Koob,K
			<b>MOTR MATH 110: Statistical Reasoning</b>						
3111 <b>Statistical Tools For Decision Making</b> Prerequisite: Math 1208 or 1212 or 1214 with a grade of "C" or better.	3.0- 3.0		LEC	1A	TTh	02:00 - 02:50 pm	EECH	00104	Koob,K
	3.0- 3.0	75600	LAB	3A	W	02:00 - 03:50 pm	CS	00206	Koob,K
3113 <b>Applied Engineering Statistics</b> Prerequisite: Math 1215 or 1221 with a grade of "C" or better.	3.0- 3.0	75917	LEC	1A	MWF	09:00 - 09:50 am	FUL	00227	Codjoe,P
			All students in Stat 3113 are scheduled for exams at 5:00pm on Thursday 9/13, Thursday 10/11, and Wednesday 11/28.						
	3.0- 3.0	75601	LEC	1B	MWF	08:00 - 08:50 am	FUL	00227	Codjoe,P
			All students in Stat 3113 are scheduled for exams at 5:00pm on Thursday 9/13, Thursday 10/11, and Wednesday 11/28.						
	3.0- 3.0	75602	LEC	1C	TTh	08:00 - 09:15 am	BCH	00315	Yatawara,K
			All students in Stat 3113 are scheduled for exams at 5:00pm on Thursday 9/13, Thursday 10/11, and Wednesday 11/28.						
	3.0- 3.0	75918	LEC	1D	TTh	09:30 - 10:45 am	TMH	00256	Yatawara,K
			All students in Stat 3113 are scheduled for exams at 5:00pm on Thursday 9/13, Thursday 10/11, and Wednesday 11/28.						
	3.0- 3.0	78192	LEC	1E	MWF	02:00 - 02:50 pm	TMH	00256	Alhassan,D
			All students in Stat 3113 are scheduled for exams at 5:00pm on Thursday 9/13, Thursday 10/11, and Wednesday 11/28.						
	3.0- 3.0	78193	LEC	1F	MWF	03:00 - 03:50 pm	TMH	00256	Alhassan,D
			All students in Stat 3113 are scheduled for exams at 5:00pm on Thursday 9/13, Thursday 10/11, and Wednesday 11/28.						
3115 <b>Engineering Statistics</b> Prerequisite: Math 1215 or 1221 with a grade of "C" or better.	3.0- 3.0	75919	LEC	1A	MWF	11:00 - 11:50 am	IDE	00206	Su,Y
	3.0- 3.0	75603	LEC	1B	TTh	09:30 - 10:45 am	CH	00104	Paige,R
	3.0- 3.0	77687	LEC	1C	MWF	02:00 - 02:50 pm	BCH	00124	Su,Y
3117 <b>Introduction To Probability And Statistics</b> Prerequisite: Math 2222 with a grade of "C" or better.	3.0- 3.0	75760	LEC	1A	MWF	01:00 - 01:50 pm	MCNT	00211	Wen,X
4000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75604	IND	6A	ARR	ARR	ARR		Adekpedjou,A
4099 <b>Undergraduate Research</b> Prerequisite: Consent of instructor.	0.0- 6.0	76464	IND	6A	ARR	ARR	ARR		Olbricht,G
	0.0- 6.0	76683	IND	6B	ARR	ARR	ARR		Samaranayake,V

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
5353 <b>Statistical Data Analysis</b> Prerequisites: Math 2222 and one of Stat 1115, 3113, 3115 and 3117. Two evening makeup classes.	3.0- 3.0	75606	LEC	1A	TTh	12:30 - 01:45 pm	CH	00105	Samaranayake,V
			<b>See 'Notes' for Class Schedule</b>						
5425 <b>Introduction to Biostatistics</b> Prerequisites: A grade of "C" or better in Math 1120, Math 1140, Math 1208, Math 1212, or Math 1214.	4.0- 4.0		LEC	1A	MWF	01:00 - 01:50 pm	CS	00203	Koob,K
	4.0- 4.0	76519	LAB	3A	W	04:00 - 05:50 pm	CH	00105	Koob,K
5643 <b>Probability And Statistics</b> Prerequisite: Math 2222.	3.0- 3.0	75605	LEC	1A	TTh	12:30 - 01:45 pm	BCH	00213	Adekpedjou,A
5756 <b>Statistical Models for Life Contingencies</b> Prerequisite: Stat 5643.	3.0- 3.0	78191	LEC	1A	TTh	11:00 - 12:15 pm	TMH	00249	Adekpedjou,A
			<b>UM Shared Course-Primary</b>						
5814 <b>Applied Time Series Analysis</b> Prerequisite: Stat 5643.	3.0- 3.0	78190	LEC	1A	TTh	03:30 - 04:45 pm	ROLLA	000G4	Samaranayake,V
6000 <b>Special Problems</b> Prerequisite: Consent of instructor required.	0.0- 6.0	75607	IND	6A	ARR	ARR	ARR		Adekpedjou,A
	0.0- 6.0	76571	IND	6B	ARR	ARR	ARR		Samaranayake,V
6001 <b>Special Topics</b> Prerequisites: An undergraduate calculus based statistics course and one of Eng Mgt 6212, Sys Eng 6612, Eng Mgt 6213, or Sys Eng 6613. (Co-listed with Eng Mgt 6001)	3.0- 3.0	77928	LEC	1A	T	04:00 - 06:30 pm	BERTELS	00B12A	Qin,R
			<b>Financial Data Analysis</b>						
6099 <b>Research</b>	0.0-15.0	75715	IND	6A	ARR	ARR	ARR		Adekpedjou,A
	0.0-15.0	75608	IND	6B	ARR	ARR	ARR		Olbricht,G
	0.0-15.0	76219	IND	6C	ARR	ARR	ARR		Paige,R
	0.0-15.0	76438	IND	6D	ARR	ARR	ARR		Samaranayake,V
	0.0-15.0	76574	IND	6E	ARR	ARR	ARR		Wen,X
6545 <b>Multivariate Statistical Methods</b> Prerequisites: Stat 5644 and Math 3103.	3.0- 3.0	78189	LEC	1A	TTh	12:30 - 01:45 pm	ROLLA	000G4	Paige,R
6553 <b>Linear Statistical Models I</b> Prerequisites: Math 3108 and Stat 5643 and either Stat 5353 or 5644.	3.0- 3.0	78188	LEC	1A	MWF	10:00 - 10:50 am	ROLLA	000G4	Wen,X

## Systems Engineering

5101 <b>System Engineering and Analysis</b> Prerequisite: Graduate Standing.	3.0- 3.0	75734	LEC	1A	T	04:00 - 06:30 pm	LIB	000G14	Pape II,L
5211 <b>Computational Intelligence</b> Prerequisite: Graduate Standing. (Co-listed with Elec Eng 5310 and Comp Eng 5310)	3.0- 3.0	75935	LEC	1A	W	04:00 - 06:30 pm	TMH	00260	Corns,S
5323 <b>Wireless Networks</b> Prerequisites: Hardware competency, Elec Eng 3420 or Comp Eng 3150 and graduate standing. (Co-listed with Comp Eng 5430 and Elec Eng 5430)	3.0- 3.0		LEC	1A	MW	08:00 - 08:50 am	CS	00209	Zawodniok,M
	3.0- 3.0	77506	LAB	3A	F	08:00 - 08:50 am	CS	00209	Zawodniok,M
6040 <b>Oral Examination</b>	0.0- 0.0	76681	IND	6A	ARR	ARR	ARR		Long,S
6050 <b>Continuous Registration</b>	1.0- 1.0	76555	IND	6A	ARR	ARR	ARR		Long,S
6099 <b>Research</b> Prerequisite: Graduate standing.	1.0-15.0	76669	IND	6A	ARR	ARR	ARR		Corns,S
	1.0-15.0	76670	IND	6B	ARR	ARR	ARR		Cudney,E
	1.0-15.0	76671	IND	6C	ARR	ARR	ARR		Dagli,C
	1.0-15.0	76672	IND	6D	ARR	ARR	ARR		Enke,D
	1.0-15.0	76673	IND	6E	ARR	ARR	ARR		Gosavi,A
	1.0-15.0	76674	IND	6F	<b>CANCELLED</b>				
	1.0-15.0	76675	IND	6G	<b>CANCELLED</b>				
	1.0-15.0	76676	IND	6H	<b>CANCELLED</b>				
	1.0-15.0	76677	IND	6J	ARR	ARR	ARR		Long,S
	1.0-15.0	76678	IND	6K	ARR	ARR	ARR		Qin,R
	1.0-15.0	76679	IND	6L	ARR	ARR	ARR		Raper,S
	1.0-15.0	78317	IND	6M	ARR	ARR	ARR		Sun,Z
6102 <b>Information Based Design</b> Prerequisites: Graduate Standing.	3.0- 3.0	76080	LEC	1A	W	04:00 - 06:30 pm	LIB	000G14	Qin,R
6104 <b>Systems Architecting</b> Prerequisites: Graduate Standing.	3.0- 3.0	76081	LEC	1A	T	07:00 - 09:30 pm	LIB	000G14	Dagli,C

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
6196 <b>Systems Engineering Capstone</b> Prerequisites: Sys Eng 6105.	3.0- 3.0	75882	LEC	1A	M	07:00 - 09:30 pm	LIB	00316	Pape II,L
6213 <b>Deep Learning and Advanced Neural Networks</b> Prerequisite: Sys Eng 5212 or equivalent neural network course.	3.0- 3.0	77714	LEC	1A	W	04:00 - 06:30 pm	BERTELS	00B12A	Dagli,C
6239 <b>Smart Engineering System Design</b> Prerequisites: Graduate Standing.	3.0- 3.0	76867	LEC	1A	M	07:00 - 09:30 pm	LIB	000G14	Dagli,C Curry,D
6541 <b>Distributed Systems Modeling</b>	3.0- 3.0	76868	LEC	1A	Th	07:00 - 09:30 pm	LIB	000G14	
6542 <b>Model Based Systems Engineering</b> Prerequisites: Graduate Standing. (Co-listed with COMP SCI 6102)	3.0- 3.0	78008	LEC	1A	F	04:00 - 06:30 pm	BERTELS	00B12A	Do,Q
6612 <b>Investment</b> Prerequisite: Eng Mgt 1210 or 5210. (Co-listed with Eng Mgt 6212)	3.0- 3.0	76928	LEC	1A	W	04:00 - 06:30 pm	CS	00209	Enke,D
6613 <b>Financial Engineering</b> Prerequisites: Eng Mgt 1210 or 5210. (Co-listed with Eng Mgt 6213)	3.0- 3.0	76929	LEC	1A	M	04:00 - 06:30 pm	LIB	000G14	Enke,D

## Technical Communication

1600 <b>Introduction to Technical Communication</b> Prerequisite: English 1120. (Co-listed with English 1600)	3.0- 3.0	75758	LEC	1A	MWF	09:00 - 09:50 am	CS	00206	
	3.0- 3.0	76393	LEC	1B	MWF	10:00 - 10:50 am	CSF	00114	
	3.0- 3.0	78359	LEC	1C	MWF	11:00 - 11:50 am	MCNutt	234	
			<b>Prerequisite</b>						
2540 <b>Layout and Design</b> Prerequisite: TCH COM 1600 or English 1600. (Co-listed with English 2540)	3.0- 3.0	76610	LEC	1A	TTh	11:00 - 12:15 pm	BCH	00313	Kerwin,R
2560 <b>Technical Marketing Communication</b> Prerequisites: English 1600 or Tch Com 1600 or English 1160. (Co-listed with ENGLISH 2560)	3.0- 3.0	76528	LEC	1A	ARR	ARR	ARR		Wright,M
	3.0- 3.0	76509	LEC	1B	MWF	09:00 - 09:50 am	CSF	00114	Roberson,E
3000 <b>Special Problems</b>	0.0- 6.0	75860	IND	6A	ARR	ARR	ARR		Malone,E
3001 <b>Special Topics</b>	3.0- 3.0	78003	LEC	1A	<b>CANCELLED</b>				
3550 <b>Writing for Social Media</b> Prerequisites: One semester of college composition or technical writing. (Co-listed with ENGL 3550)	3.0- 3.0	78301	LEC	1A	ARR	ARR	ARR		Malone,E
			Course run first 8 weeks of the semester.						
			<b>UM Shared Course-Secondary</b>						
3570 <b>Writing in the Sciences</b> Prerequisites: English 1120 or equivalent. Class meets second 8 weeks of the semester.	3.0- 3.0	77274	LEC	1A	ARR	ARR	ARR		
			<b>UM Shared Course-Secondary</b>						
4085 <b>Internship</b> Prerequisites: Must have completed 24 hours in the major core curriculum.	0.0- 6.0	76004	IND	6A	ARR	ARR	ARR		Malone,E
5000 <b>Special Problems</b>	0.0- 6.0	76565	IND	6A	ARR	ARR	ARR		Malone,E
5040 <b>Oral Examination</b>	0.0- 0.0	76025	IND	6A	ARR	ARR	ARR		Malone,E
5099 <b>Research</b>	0.0-15.0	76005	IND	6A	ARR	ARR	ARR		Malone,E
	0.0-15.0	77316	IND	6B	ARR	ARR	ARR		Wright,M
	0.0-15.0	78258	IND	6C	ARR	ARR	ARR		Northcut,K
5530 <b>Usability Studies</b> Prerequisites: One semester of college composition or technical writing, or graduate standing.	3.0- 3.0	78001	LEC	1A	M	06:00 - 09:00 pm	H-SS	00202	Wright,M
	3.0- 3.0	78004	LEC	1B	M	06:00 - 09:00 pm	ARR		Wright,M
5620 <b>Research Methods in Technical Communication</b> Prerequisites: One semester of college composition or technical writing, or graduate standing.	3.0- 3.0	78029	LEC	1A	T	07:00 - 07:50 pm	ARR		Malone,E
			<b>UM Shared Course-Primary</b>						
6070 <b>Teaching of Technical Communication</b>	3.0- 3.0	78066	LEC	1A	TTh	12:30 - 01:45 pm	CSF	00114	
6600 <b>Foundations of Technical Communication</b>	3.0- 3.0	78005	LEC	1A	W	07:00 - 07:50 pm	ARR		Malone,E

## Theatre

1142 <b>Stage Productions, Performers</b> Prerequisite: Participants selected by audition.	1.0- 1.0	75609	LAB	3A	ARR	ARR	ARR		Stanley,J
1143 <b>Stage Productions, Technicians</b>	1.0- 1.0	75610	LAB	3A	ARR	ARR	ARR		Gruenloh,T

CATALOG # AND COURSE TITLE	CREDIT	CLASS#	CMP	SEC	DAY	TIME	BLDG	ROOM	INSTRUCTOR
1190 Theatre via Video	3.0- 3.0	75611	LEC	1A	T	09:30 - 10:45 am	CASTL	00143	Gruenloh,T
									<b>MOTR THEA 100A: Theatre Appreciation</b>
									<b>Field Trip Required</b>
			LEC	1A	ARR	ARR	ARR		
									<b>MOTR THEA 100A: Theatre Appreciation</b>
									<b>Field Trip Required</b>
2000 Special Problems	0.0- 6.0	75612	IND	6A	ARR	ARR	ARR		Shaw,K
2141 Acting I	3.0- 3.0	76506	LEC	1A	TTh	03:30 - 04:45 pm	CASTL	00143	Stanley,J
2143 Stagecraft	3.0- 3.0		LEC	1A	MW	03:00 - 03:50 pm	CASTL	00143	Shaw,K
	3.0- 3.0	76430	LAB	3A	MW	03:50 - 05:00 pm	CASTL	00143	Shaw,K
3000 Special Problems	0.0- 6.0	75613	IND	6A	ARR	ARR	ARR		Shaw,K
									Prerequisite: Consent of instructor.
4000 Special Problems	0.0- 6.0	76088	IND	6A	ARR	ARR	ARR		Shaw,K