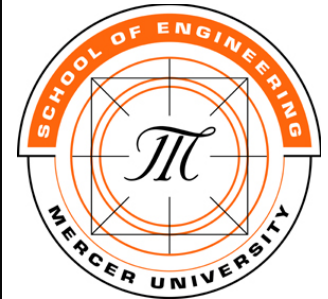


# Welcome Class of 2022

Summer Orientation 2018  
School of Engineering  
Mercer University





# Academic Advisors

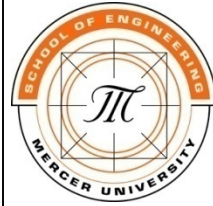
- **Summer Advisor:** until Bear Beginnings (Fall Orientation)  
Dr. Loren Sumner, ME Department, Office: EGC 105B  
(478-301-5533) – **PLEASE CALL (leave message if necessary).**  
(I am happy to recommend and answer all questions during the summer)
- **Bear Beginnings** – Opening Day Saturday, Aug. 18th
  - mandatory, fall orientation program for all new first-year students
  - first day of classes – Tuesday, Aug. 21<sup>st</sup>
  - schedule changes permitted until Friday, Aug. 24<sup>th</sup>
- **Freshman Advisor:** UNV 101. Instructor
  - Your UNV 101. Instructor **is your advisor** throughout freshman year
  - First Meeting Sunday Afternoon, Aug. 19<sup>th</sup> (TBA)

**UNV 101. The First-Year Student Experience (1 hour)**

This course is required of all freshmen and is graded S/U.

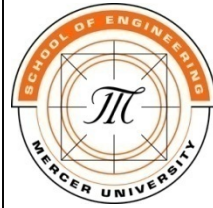
# Today

<https://aas.mercer.edu/orientation-programs/summer-orientation/>



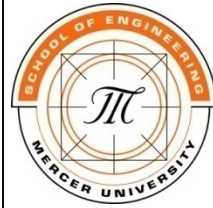
- Dean's Welcome 9am – 9:45am
  - Curriculum Overview
  - Decisions Review - Programs/ Activities/ Classes
  - Receive your current fall schedule/ advising session
- Advising Meetings 10:00am – 12pm
  - You have an assigned meeting place, time, advisor (15 min session)
- Other Academic Orientation Activities
  - Pre-Professional Program Information
    - 1:30-2:00 & 2:30-3:00pm (UC – Farmer's Market)
    - <http://aas.mercer.edu/pre-professional-tracks/>
  - Placement Exams 10:30-11:30 and 1:30-3:30 p.m.
    - Math Placement Exam (Stetson Hall, Room 238)
      - 30-min computer exam (no calculator) – must score 15 to take Calculus I
    - Foreign Language Placement Exam (Stetson Hall, Room 133 & 135)

# Degree programs within the School of Engineering



- Bachelor of Science in Engineering  
(BSE) - Calculus based curriculum content
  - **Biomedical Engineering**
  - **Civil Engineering**
  - **Computer Engineering**
  - **Electrical Engineering**
  - **Environmental Engineering**
  - **Industrial Engineering**
  - **Mechanical Engineering**
- Bachelor of Science (BS)
  - **Technical Communication**
  - **Industrial Management**

# BSE programs: Some Curriculum Specs



- Total Courses: **43 courses** (3-hr-equiv.) = 129 credit hours
- Specifically required courses (per Specialty): **33 courses** (98 credit hrs)
  - Designed progression – freshman level, sophomore, junior, and senior-level courses
  - Pre-requisites and Co-requisite courses are typical.
  - Required completion of **sequences of courses => academic advising**
- Elective type courses: **10 courses** (31 credit hours)
  - 1 (3 hrs) Religion elective
  - 2 (6 hrs) Humanities/Social Science/Communication electives
  - 1 (3 hrs) Behavioral/Social Science elective
  - 1 (3 hrs) Humanities/Fine Arts elective
  
  - 1 (4 hrs) Scientific Reasoning elective
  - 4 (12 hrs) Engineering Technical Electives (upper level)
- On average: **16+ hours per semester for 4 years**



# From the Catalog: Mechanical Engineering Mid-years

## Sophomore Year

### Fall Semester

EGR 232	Statics/Solid Mech	3	0	3
EGR 244	Electr Circuit Ana.	4	0	4
MAT 330	Intro to Diff Equation	3	0	3
XXX	Laboratory Science	3	3	4
XXX	Gen Ed Grp 2/3/4	3	0	3

15 5 17

### Spring Semester

EGR 236	Dynamics	3	0	3
EGR 235	Thermodynamics	3	0	3
EGR 245	Intro Ele & Ele Power	3	0	3
EGR 246L	Electr Circuits Lab	0	3	1
EGR 252	Prob & Stats for Engr	3	0	3
MAE 205	Visual and Graphics	0	6	2
MAT 293	Multivariable Calculus	3	0	3

15 9 18

## Junior Year

### Fall Semester

EGR 312	Engineering Econ	3	0	3
MAE 250L	Manuf Practices Lab	0	6	2
MAE 310	Engr Analysis for ME	3	0	3
MAE 320	Solid Mechanics II	3	0	3
MAE 330	Fluid Mechanics	3	0	3
TCO 341	Tech Comm	3	0	3

15 6 17

### Spring Semester

EGR 386	Feedback Control	3	0	3
MAE 301	Exp Meth for ME's	3	0	3
MAE 301L	Mech Engr Lab	0	3	1
MAE 322	Machine Design	3	0	3
MAE 362	Struc & Prop of Mat	3	0	3
MAE 430	Heat Transfer	3	0	3
MAE 480	Intro to Sr Design	0	1	0

16 4 16



# BSE: Freshman Year

- Biomedical and Environmental Engineering

<b>Fall Semester</b>		<u><b>Freshman Year</b></u>			<b>Spring Semester</b>				
TCO 141	Intro to Prof. Comm				TCO 141	Intro to Prof. Comm			
<b>Or</b>		3	0	3	<b>Or</b>		3	0	3
EGR 126	Program for Engr				EGR 126	Program for Engrs			
MAT 191	Calculus I	4	0	4	EGR 107	Intro to Engr Design	3	0	3
CHM 111	General Chem I	3	3	4	MAT 192	Calculus II	4	0	4
UNV 101	The Freshman				<b>CHM 112</b>	<b>General Chemistry II</b>	<b>3</b>	<b>3</b>	<b>4</b>
	Experience	1	0	1	XXX	Gen Ed Grp 2/3/4	3	0	3
XXX	Gen Ed Grp 2/3/4	3	0	3					
		<u>14</u>	<u>3</u>	<u>15</u>			<u>15</u>	<u>6</u>	<u>17</u>

- Mechanical, Electrical, Computer, Industrial and Civil Engineering

<b>Fall Semester</b>		<u><b>Freshman Year</b></u>			<b>Spring Semester</b>				
TCO 141	Intro to Prof Comm				TCO 141	Intro to Prof Comm			
<b>Or</b>		3	0	3	<b>Or</b>		3	0	3
EGR 126	Program for Engr				EGR 126	Program for Engr			
MAT 191	Calculus I	4	0	4	EGR 107	Intro to Engr Dsgn	3	0	3
CHM 111	General Chemistry I	3	3	4	MAT 192	Calculus II	4	0	4
UNV 101	Freshman Experience	1	0	1	<b>PHY 161</b>	<b>General Physics I</b>	<b>3</b>	<b>3</b>	<b>4</b>
XXX	Gen Ed Grp 2/3/4	3	0	3	XXX	Gen Ed Grp 2/3/4	3	0	3
		<u>14</u>	<u>3</u>	<u>15</u>			<u>15</u>	<u>6</u>	<u>17</u>



# BSE: Freshman Year

- Biomedical and Environmental Engineering

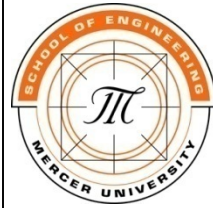
<u>Freshman Year</u>							
Fall Semester				Spring Semester			
TCO 141	Intro to Prof. Comm			TCO 141	Intro to Prof. Comm		
<i>Or</i>		3	0 3	<i>Or</i>		3	0 3
EGR 126	Program for Engr			EGR 126	Program for Engrs		
MAT 191	Calculus I	4	0 4	EGR 107	Intro to Engr Design	3	0 3
CHM 111	General Chem I	3	3 4	MAT 192	Calculus II	4	0 4
UNV 101	The Freshman Experience	1	0 1	CHM 112	General Chemistry II	3	3 4
XXX	Gen Ed Grp 2/3/4	3	0 3	XXX	Gen Ed Grp 2/3/4	3	0 3
		<u>14</u>	<u>3</u> <u>15</u>			<u>15</u>	<u>6</u> <u>17</u>

- Mechanical, Electrical, Computer, Industrial and Civil Engineering

<u>Freshman Year</u>							
Fall Semester				Spring Semester			
TCO 141	Intro to Prof Comm			TCO 141	Intro to Prof Comm		
<i>Or</i>		3	0 3	<i>Or</i>		3	0 3
EGR 126	Program for Engr			EGR 126	Program for Engr		
MAT 191	Calculus I	4	0 4	EGR 107	Intro to Engr Dsgn	3	0 3
CHM 111	General Chemistry I	3	3 4	MAT 192	Calculus II	4	0 4
UNV 101	Freshman Experience	1	0 1	PHY 161	General Physics I	3	3 4
XXX	Gen Ed Grp 2/3/4	3	0 3	XXX	Gen Ed Grp 2/3/4	3	0 3
		<u>14</u>	<u>3</u> <u>15</u>			<u>15</u>	<u>6</u> <u>17</u>



# Your fall-semester schedule needs for BSE programs.



- CHM 111 General Chemistry 4 hrs
- MAT 191 Calculus I 4 hrs
- UNV 101 The Freshman Experience 1 hr
- 2 courses from: 6 hrs
  - TCO 141 Intro to Professional Communication
  - EGR 126 Programming for Engineering
  - EGR 107 Intro to Engineering Design
  - XXX Gen Ed Grp 2/3/4

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Total credit hours

15 hrs

# Choices for Gen Ed Grp 2/3/4



## General Education Requirements

For the degree Bachelor of Science in Engineering:

1. Communication and Writing (minimum of 3 hours)  
TCO 141 (written and oral communication)
2. Religion (minimum of 3 hours)  
at least one course selected from: REL 110, REL 130, REL 150, REL 170; ENG 225; HIS 160; PHI 240; GBK 203
3. Humanities/Fine Arts (minimum of 3 hours)  
at least one course selected from: ART 106, ART 107, ART 108, ART 115, ART 116, ART 223, ART 224, ART 225, ART 226, ART 254; CLA 101, CLA 102; ENG 224, ENG 226, ENG 233; ENG 234; ENG 235; ENG 237; ENG 263, ENG 264; FLL 195; GBK 202, GBK 305; HIS 110, HIS 145, HIS 165, HIS 176; JMS 220, JMS 225, JMS 230; MUS 151; PHI 176, PHI 190, PHI 230, PHI 260, PHI 265, PHI 269; PHO 230; POL 176; REL 210, REL 230, REL 270; SST 180; THR 115, THR 218; WLT 101; (3 credit hours may also be selected from the 1-hour music ensembles to meet this requirement: MUS 182, MUS 183, MUS 191, MUS 192, MUS 196, MUS 197)
4. Behavioral/Social Science (minimum of 3 hours)  
at least one course selected from: AFR 190; AFR 210; ANT 101; COM 230; COM 250; ECN 150; ECN 151; GDS 200; GBK 407; GEO 111; GHS 200; JMS 101, 240; PHI 237; POL 101; POL/IAF 253; PSY 101; SOC 101, SOC 210; WGS 180



# Religion course interests? Great books?

REL 110 – Why Religion Matters (every semester)

REL 130 – Old Testament (every semester)

REL 150 – New Testament (every semester)

REL 170 – Beginning with Abraham (every year)

HIS 160 – Biblical Texts and American History (every year)

ENG 225 – A Literary Theme in Religious Heritage (occasionally)

PHI 240 – Philosophy of Religion (every 2 years)

**Great Books Program** – 7 course program (C or better in each course to continue series)

GBK 101, 202, **203**, 304, 305, 306, and 407

GBK 203 – The Hebrew and Christian Traditions (3rd course in series)

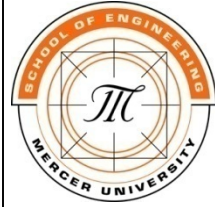


# Transfer Credit Basics

- Content comparison - must match a Mercer Course
- A Mercer course equivalent pre-assigned for many
  - AP Credits
  - IB Credits
  - College courses at other institutions
- Mercer **Registrar must receive official record** before credit is awarded
- **No early pre-requisite credit** – No enrollment permitted before Registrar assigns credits for pre-requisites
- **AP credit received = Automatically drops your enrollment** in that course (you lose your seat in that course)
- Maximum of **32** credit hours permitted for **AP/IB/CLEP** transfer credit

# AP/IB Equivalences:

<https://registrar.mercer.edu/transfer-evaluation.cfm>



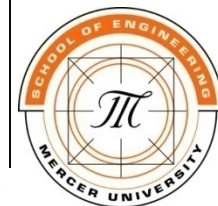
- AP
  - Calculus AB (4 or 5) – MAT 191 Calc I
  - Calculus BC (4 or 5) – MAT 191 and MAT 192 Calc I and II
  - Chemistry (4) – CHM 111 – General Chemistry I
  - Chemistry (5) – CHM 111 and CHM 112 – General Chemistry I and II
  - Physics C, Mechanics (3, 4, or 5) – PHY 161 – Physics I
  - Physics C, Electricity and Magnetism (3, 4, or 5) – PHY 162 – Physics II
  - Biology (4 or 5) – BIO 211 – Biology I
  - Computer Science A (3, 4, or 5) – CSC 204 – Programming I
  - Environmental Science (4 or 5) – ENB 150 – Intro to Environmental Sci.
- IB Exam (HL only; SL receives no credit.)
  - Mathematics HL (6 or 7) - MAT 191 Calc I
  - Chemistry (6) – CHM 111 – General Chemistry I
  - Chemistry (7) – CHM 111 and CHM 112 – General Chemistry I and II
  - Physics HL (7) – PHY 161 Physics I; (5,6) - no engineering credit – PHY 141
  - Biology (6 or 7) – BIO 211 – Biology I
  - Computer Science (5,6, or 7) – CSC 204 – Programming I



# Registrar's Website

- Main – Calendars, Catalog, Class Schedules, Forms, Final Exam Times, etc  
<http://registrar.mercer.edu/macon/>
- University Catalog - Costs, Rules, Curriculum, **Course Descriptions**  
<http://registrar.mercer.edu/macon/catalogs.cfm>
- **Class Schedules** for Course Offerings – Time, Professor, Location  
<http://registrar.mercer.edu/macon/class-schedules.cfm>
- **Seats/Schedule Changes**
  - Provide your interests in Advising session today
  - Can also Contact Dr. Sumner (478-301-5533)

# Sample Schedule Page



Student Name: Program Version: B.S. in Engineering - EGR - Macon Main Campus Enroll Status: Ready to Register

ID: Academic Advisor: Start Date: 8/20/2018

Weekday	Start Time	End Time	Campus	Building	Room #	Course	Section	Description	Instructor	Audit	Credits	Date Start	Date End	Delivery M.
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2018-FA-MOP			2018 Fall MCN/ATL/RAC/NUR/THE												
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Term: 2018-FA-MCN-00 - 2018 Fall Macon Campus U/G 15.00 Credits

M W F	9:00 AM	9:50 AM	Macon Campus	SEB-MCN	SEB 143	CLA MAT 191.	013	Calculus I	Pullen, Jeff	No	4.00	8/22/2018	12/14/2018	Classroom (Primary)
R	9:25 AM	12:05 PM	Macon Campus	GSC-MC N	GSC 204	CLA CHM 111.	001	General Chemistry I	Crawford, Jennifer	No	4.00	8/23/2018	12/13/2018	Classroom (Primary)
Comments: Lab Fee Required														
W	10:00 AM	10:50 AM	Macon Campus	SEB-MCN	SEB 143	CLA MAT 191.	013	Calculus I	Pullen, Jeff	No	4.00	8/22/2018	12/12/2018	Classroom (Primary)
M W F	11:00 AM	11:50 AM	Macon Campus	KNT-MCN	KNT 303	CLA REL 150.	003	Engaging the New Testament	Johnson, Janell	No	3.00	8/22/2018	12/14/2018	Classroom
T	1:40 PM	2:55 PM	Macon Campus			CLA UNV 101.#	044-EG R	First-Year-Student Experience	Hill, Stephen	No	1.00	8/21/2018	12/11/2018	Classroom
M W F	2:00 PM	2:50 PM	Macon Campus	GSC-MC N	GSC 203	CLA CHM 111.	001	General Chemistry I	Crawford, Jennifer	No	4.00	8/22/2018	12/14/2018	Classroom (Primary)
Comments: Lab Fee Required														
W	3:00 PM	4:15 PM	Macon Campus	EGC-MC N	EGC 209	EGR EGR 107.	004	Intro Engineering Design	#Staff, TBA	No	3.00	8/22/2018	12/12/2018	Classroom
Comments: Lab Fee Required														
M	3:00 PM	4:15 PM	Macon Campus	SEB-MCN	SEB 110	EGR EGR 107.	004	Intro Engineering Design	#Staff, TBA	No	3.00	8/27/2018	12/10/2018	Classroom
Comments: Lab Fee Required														
T	4:30 PM	5:20 PM	Macon Campus	KNT-MCN	KNT 101	CLA MAT 191.	013	Calculus I	Pullen, Jeff	No	4.00	8/21/2018	12/11/2018	Classroom (Primary)



# Sample Schedule Preview

- Computer Output of Enrolled Courses

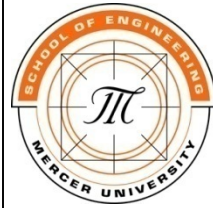
Term	Course	Section	Description	Instructor	Start Date	Status
	EGR EGR 312.		Engineering Economy			Future
	EGR EGR 386.		Fdbck Control & Modeling f			Future
	EGR TCO 141.		Introduction to Professiona			Future
	EGR TCO 341.		Technical Communication			Future
2018-FA-MC	CLA CHM 111.	001	General Chemistry I	Jennifer Crawford	8/21/2018	Scheduled
2018-FA-MC	CLA MAT 191.	013	Calculus I	Jeff Pullen	8/21/2018	Scheduled
2018-FA-MC	CLA REL 150.	003	Engaging the New Testam	Janell Johnson	8/21/2018	Scheduled
2018-FA-MC	CLA UNV 101.	044-EG	First-Year-Student Experier	Stephen Hill	8/21/2018	Scheduled
2018-FA-MC	EGR EGR 107.	004	Intro Engineering Design	TBA #Staff	8/21/2018	Scheduled

- Weekly Time Footprint Preview (Unofficial)

COURSE	Sec											
		APPROX.	M - MONDAY	T - TUESDAY	W - WEDNESDAY	R - THURSDAY	F - FRIDAY					
MAT 191 Calculus I	13											
CHM 111 Gen. Chemist	1	8 to 9	M1 8-8:50	0	T1 8-9:15	0	W1 8-8:50	0	R1 8-9:15	0	F1 8-8:50	0
UNV 101 Freshman Exp	44	9 to 10	M2 9-9:50	1	T2 9:25-10:40	0	W2 9-9:50	1	R2 9:25-10:4	0.9	F2 9-9:50	1
MAT 192 Calculus II	0	10 to 11	M3 10-10:50	0	T3 10:40-12:05	0	W3 9:50-10:50	1	R3 10:40-12:0	0.9	F3 10-10:50	0
EGR 107 Intro. To E.	4	11 to 12	M4 11-11:50	1		0	W4 11-11:50	1		0.9	F4 11-11:50	1
EGR 126 Programing E.	0	12 to 13	M5 12-12:50	0	T4 12:15-1:30	0	W5 12-12:50	0	R4 12:15-1:30	0	F5 12-12:50	0
TCO 141 Tech. Com.	0	1 to 1:30	M6 1-1:50	0		0	W6 1-1:150	0		0	F6 1-1:50	0
REL 130 Old Test.	0	1:30 to 2			T5 1:30-2:55	0.6			R5 1:30-2:55	0		
REL 150 New Test.	3	2 to 2:50	M7 2-2:50	1			W7 2-2:50	1		0	F7 2-2:50	1
		3 to 4	M8 3-4	0.6	T6 3:05-4:20	0	W8 3-3:50	0.6	R6 3:05-4:20	0	F7 3-3:50	0
EGR HON R4:40-5:30		4 to 4:15	M9 4-4:15	0.6			W9 3:50-4:15	0.6		0	F7 4-4:50	0
CLA HON T5:10-6		4:15 to 4:30	M10 4:20-4:50	0	T7 4:30-5	1	W10 4:15-4:30	0	R7 4:20-5	0	NO CLASSES	
		4:30 to 5					W11 4:30-5	0				
		5 to 5:20	M11 5-5:50	0	T8 5-5:20	1	W12 5-5:50	0	R8 5-5:20	0		
		5:20 to 6		0	T9 5:30-5:50	0		0	R9 5:30-5:50	0		
		6 to 7	M12 6-6:50	0	T10 6-6:50	0	W13 6-6:50	0	R10 6-6:50	0		
		7 to 8	M13 7-7:50	0	T11 7-7:50	0	W14 7-7:50	0	R11 7-7:50	0		



# Your fall-semester schedule needs...



- CHM 111 General Chemistry 4 hrs
- MAT 191 Calculus I 4 hrs
- UNV 101 The Freshman Experience 1 hr
- 2 courses from: 6 hrs
  - TCO 141 Intro to Professional Communication
  - EGR 126 Programming for Engineering
  - EGR 107 Intro to Engineering Design
  - XXX Gen Ed Grp 2/3/4

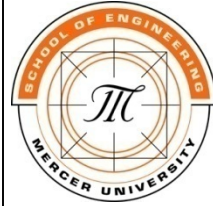
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Total credit hours

15 hrs

# Minors of interest?

Typically 5 courses and some may count for Gen. Ed. requirements



- CLA Minors (<https://cla.mercer.edu/majors-minors/>)

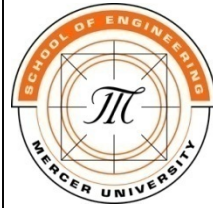
African-American Studies, Anthropology, Art, Biology, Chemistry, Christianity, Communication Studies, Computational Science, Computer Science, Criminal Justice, Economics, Environmental Biology, Environmental Studies and Policy, Film Studies, French, German, Global Health Studies, History, Information Science and Technology, Journalism, Latin, Mathematics, Media Studies, Military Science, Philosophy, Photography, Physics, Political Science, Psychology, Social Entrepreneurship, Sociology, Spanish, Statistics, Web Technology, Women and Gender Studies

- Outside CLA (<https://cla.mercer.edu/majors-minors/outside-cla/>)

Accounting, Business, Music Minor, Music Industry, Technical Communication, Web Design, Engineering for Development

# Explore and Adapt to College:

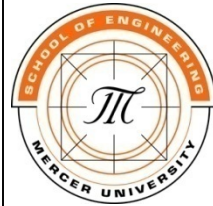
## Once-in-a-lifetime opportunities at Mercer.



- Clubs and Student groups, Professional Societies, Intramural Sports, Fitness Classes, Cheer leading, Dance, Band, etc.
- ROTC/Music/Sports... practice times affect class schedules.
- Research/Scholarship – many professors actively conduct research with students
- Honors – Engineering or CLA - two unrelated programs.
  - Engineering Honors - EGR 101 (meets R4:40-5:30pm)  
(SAT/ACT  $\geq$  1440/31 and GPA  $\geq$  3.7)
  - CLA Honors – HON 110 (meets T5:10-6:00pm)
  - Honors students are already enrolled in the appropriate course.

**PS** - What if you've entered the twilight zone – and are trapped as a Mercer student for the rest of your life?

# BS: Freshman Year



- Technical Communication

		<u>Freshman Year</u>							
Fall Semester						Spring Semester			
UNV 101	Freshman Experience	1	0	1	EGR 107	Intro to Engr Design	3	0	3
TCO 141	Intro to Prof Comm	3	0	3	EGR 126	Programming for Engr	3	0	3
MAT 133	Precalculus	4	0	4	TCO 285	Doc & Web Dsgn	3	0	3
XXX 1xx	Science Course w/Lab	3	3	4	XXX 1xx	Science Course w/Lab	3	3	4
XXX	Gen Ed Grp 2	3	0	3	XXX	Gen Ed Grp 3	3	0	3
		<u>14</u>	<u>3</u>	<u>15</u>			<u>14</u>	<u>3</u>	<u>16</u>

- Industrial Management

		<u>Freshman Year</u>							
Fall Semester						Spring Semester			
TCO 141	Intro to Prof Comm				TCO 141	Intro to Prof Comm			
<i>Or</i>		3	0	3	<i>Or</i>		3	0	3
EGR 126	Programming for Engr				EGR 126	Program for Engr			
ECN 150	Microeconomics	3	0	3	EGR 107	Intro to Engr Design	3	0	3
MAE 205	Visual and Graphics	0	6	2	XXX	Math and Science	4	0	4
MAT 191	Calculus I	4	0	4	PHY 141	Intro Physics I	3	0	3
PSY 101	Intro to Psychology	3	0	3	PHY 121L	Intro Physics I Lab	0	3	1
UNV 101	Freshman Experience	1	0	1	XXX	Gen Ed Grp 2/3	3	0	3
		<u>15</u>	<u>6</u>	<u>16</u>			<u>15</u>	<u>6</u>	<u>17</u>



# Schedules and Questions?

## Interview Locations:

- Dr. Schultz – SEB 105, Associate Dean, Industrial Engineering
- Dr. Hill – SEB 103, Mechanical Engineering
- Former Dean Shaw – SEB 226, Systems Engineering
- Dr. Thomas – SEB 224, Biomedical Engineering
- Dr. Moody – EGC 201G, Industrial Engineering
- Dr. Sumner – EGC 105B, Mechanical Engineering
- Dr. Hyun – EGC 116G, Biomedical Engineering