

The University of Toledo



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MEMORANDUM

November 11, 1996

TO: Members of The Semester Transition Team (SETT)
FROM: William L. Bischoff
Academic Division of the Calendar Conversion Council
RE: Preparation of Academic Program Completion Guides

Chapter V, Section I, Part 12 of the Calendar Conversion Guidelines states that "Each department and academic program will prepare written **Academic Program Completion Guidelines (APCOGs)** which describe the way in which students who started at UT on the quarter system but will continue their studies on the semester system (**Transition Students**) will complete degree requirements using quarter and semester courses. Each APCOG will contain directions for identifying a Transition Student's remaining requirements in the semester system." To assist in the preparation of APCOGs, the Executive Committee of the Academic Division has prepared a set of very general guidelines which are articulated in the document that accompanies this memorandum. The Committee has also collected examples of APCOGs which might be used as templates by others. Copies of those materials are also included.

Since the APCOGs are essential for the student advising process and important for the generation of accurate Degree Audits, we are asking each academic unit and program to develop an appropriate form for it's students. Once constructed, that form should be shared with all advisers in the unit or program. In addition, copies should be sent to the Calendar Conversion Office and to Sherry Armstrong in the Degree Audit Office. To expedite the transition advising process we are asking that APCOGs be completed and made available to advisers no later than Friday, December 6th.

Thanks in advance for your attention to this important transition issue. If questions arise, please feel free to contact the Calendar Conversion Office.

WLB/s

ACADEMIC PROGRAM COMPLETION GUIDELINES (APCOGs)

Calendar Conversion guidelines prepared by the Academic Division of the Calendar Conversion Council (CCC-Academic) require each academic unit to prepare **Academic Program Completion Guidelines (APCOG's)** for the degree programs and areas of specialization within its jurisdiction. An APCOG is a unit's guidelines for how students in its academic programs will complete degree requirements begun on the quarter system with semester courses. There should be one APCOG for each major and each specialization within a major. Unit APCOGs will be the basis for advising students on degree completion during semester transition. Check sheets and degree audits that will be used to develop a student's **Individual Completion Plan (ICP)** for fulfilling degree requirements are derived from the program APCOG's. It is anticipated that for the majority of students, **ICP's** will be generated by the **Degree Audit Reporting System (DARS)**. However, some programs and majors will require that they be developed manually.

While CCC-Academic has not developed a specific format for the standardization of APCOGs throughout the University, Council recommends that each:

1. Contain a clear comparison of degree requirements within the major or area of specialization as well as related areas under quarter and semester systems.
2. Include a description of how students at various stages of program completion under the quarter system can finish their programs utilizing semester courses.
3. Include a list of departmental semester/quarter course equivalency tables or reference thereto and information on where those documents may be obtained.
4. Be agreed upon by the unit's curriculum approval bodies and advisers before being distributed to students.

The Council further recommends that APCOGs be prepared in such a way that they can be easily understood by faculty, advisers, and students. Since not all

Table 1: CSE Program Course Conversions (Last Revised: 5/1/96)

Quarter Course(s)		Cr. Hr.	Grade	Term	Grade	Cr. Hr.	Semester Course(s)
EECS 100	Orientation To EECS	1				1	EECS 1000 Orientation to EECS
ENGL 111	College Composition I	5				3	ENGL College Composition I
ENGL 190	Organizational Report Writing	5				3	ENGL Organizational Report Writing
CIEM 110	General Chemistry I	4				4	CIEM 1230 General Chemistry I
CIEM 111	General Chemistry II	4				4	
MATH 185	Calculus I	4				4	MATH 1850 Calculus I
MATH 186	Calculus II	4				4	MATH 1860 Calculus II
MATH 187	Calculus III	4					
MATH 285	Calculus IV	3				4	MATH 2850 Calculus III
MATH 286	Calculus V	3					
MATH 391	Calculus VI	4				3	MATH 3860 Differential Equations
ES 131	Introduction to Computing and Computing Appl.	3					
EECS 233	Data Representation and Theory	4				4	EECS 1500 Data Structures I
EECS 201	Data Structures and Algorithms I	4				4	EECS 1510 Data Structures II
EECS 202	Data Structures and Algorithms II	4					
PHYS 213	Physics I	5				5	PHYS 2130 Physics I
PHYS 214	Physics II	5				5	PHYS 2140 Physics II
PHYS 215	Physics III	5					
EECS 231	Electric Circuit Analysis I	3				4	EECS 2300 Electric Circuits
EECS 232	Electric Circuit Analysis Laboratory	1					
EECS 240	Electric Circuit Analysis II	4					
MATH 189	Elementary Linear Algebra	3				3	EECS 2500 Numerical Methods & Linear Algebra
EECS 301	Numerical Methods	3					

Table 1: CSE Program Course Conversions (Last Revised: 5/1/96)

Quarter Course(s)		Cr. Hr.	Grade	Term	Grade	Cr. Hr.	Semester Course(s)
EECS 221	Logic & Computers I	3				4	EECS 1100
EECS 223	Logic & Computers II	3					Digital Logic Design
EECS 224	Logic & Computers Laboratory	2					
EECS 250	Assembly Language Programming	3					
EECS 325	Computer Organization & Architecture	3				4	EECS 2100
ES 311	Engineering Statistics: Probability Theory	3				3	MIME 3600
EECS 311	Signal Analysis	3				4	EECS 3200
EECS 330	Electronics I	4					
EECS 334	Electronics III	4					
EECS 337	Electronics Laboratory	3				4	EECS 3400
EECS 303	Theory of Computing	3				3	EECS 3500
EECS 410	Operating Systems	5				3	EECS 2510
EECS 390	Data Communication	4				3	EECS 3150
EECS 428	Microsystem Design	3				4	EECS 3100
EECS 419	Microsystem Design Laboratory	3				3	EECS 3550
EECS 412	Software Engineering I	3				4	EECS 4000
EECS 413	Software Engineering II	3				3	MIME 3400
EECS 412	Senior Design Project I	2				9	Professional Electives
EECS 413	Senior Design Project II	3				26	Hum./Soc. Sci./Multicultural Electives
MIME 311	Thermodynamics I	4				128	Total Semester Hours
	Professional Electives	16					
	Hum./Soc. Sci./Multicultural Electives	35					
	Total Quarter Hours	200					

ACADEMIC PROGRAM COMPLETION GUIDELINES (APCOG) FOR TRANSITION STUDENTS

DEPARTMENT OF BIOLOGY

These guidelines are intended to assist Biology majors who have begun studies under the quarter system to fulfill their degree requirements using semester courses.

SEMESTER TRANSITION IN THE MAJOR

A smooth transition from quarters to semesters within the major requires an understanding of Tables I and II which compare major and related hour requirements under both systems.

TABLE I. BIOLOGY REQUIREMENTS: SEMESTER AND QUARTER SYSTEMS								
<u>Quarter System BA/BS</u>					<u>Semester System (BS Only)</u>			
No.	Course	Hrs	BS	BA	No.	Course	Hrs	
211	Fund. Life Sci. I	4	x	x				
212	Fund. Life Sci. I Lab	1	x	x	2150	Fund. Life Sci. I	4	
213	Fund. Life Sci. II	4	x	x	2160	Fund. Life Sci. I Lab	1	
214	Fund. Life Sci. II Lab	1	x	x	2170	Fund. Life Sci. II	4	
215	Fund. Life Sci. III	4	x	x	2180	Fund. Life Sci. II Lab	1	
216	Fund. Life Sci. III Lab	1	x	x				
Core Courses								
	<u>Core Consisting of:</u>					<u>16 Hour Core Consisting of:</u>		
313	Genetics	5	x	x	3010	Molecular Genetics	3	
314	Cell Biology	5	x	x	3030	Cell Biology	3	
					3050	Ecology	3	
315/316	Human Physiology I&II	6	x	x	3070	Human Physiology	4	
	or							
318	Plant Physiology	4						
411	Readings in Biology	4	x	x	4700	Biological Literature	3	
	Electives above 315 to include 331 <u>or</u> 341 <u>or</u> 429 <u>and</u> two laboratories	14	x			Electives above 3000 [Must include 2 laboratory or field experiences]	8	
	Electives above 315	15		x				
	TOTAL (Minimum)		50	50			34	

**TABLE II. RELATED AREA REQUIREMENTS FOR BIOLOGY MAJORS-
SEMESTER AND QUARTER SYSTEMS**

<u>Quarter System BA/BS</u>						<u>Semester System (BS Only)</u>		
No.	Course	Hrs	BS	BA		No.	Course	Hrs
MATH						MATH		
132	College Algebra	3		x		1750 & 1760 1850 & 1860	Math for Life Sci. I & II or Calculus I & II	4-3 4-4
133	Trigonometry	3		x				
260	Statistics	4		x				
185	Calculus I	4	x					
186	Calculus II	4	x					
187	Calculus III	4	x					
PHYSICS						PHYSICS		
207	Gen Physics I	5				2070 & 2080	Gen Physics I & II	5-5
208	Gen Physics II	5		x			or	
209	Gen Physics III	5				2130 & 2140	Physics for Eng. I & II	5-5
213	Eng. Physics I	5						
214	Eng. Physics II	5	x					
215	Eng. Physics III	5						
CHEMISTRY						CHEMISTRY		
110	General Chem I	4	x	x		1230	General Chem I	4
111	General Chem II	4	x	x		1240	General Chem II	4
112	General Chem III	4	x	x		1280	General Chem Lab I	1
121	General Chem Lab I	1	x	x		1290	General Chem Lab II	1
122	General Chem Lab II	1	x	x				
340	Organic I	3	x	x		2410	Organic Chem I	3
341	Organic II	3	x	x		2420	Organic Chem II	3
342	Organic III	3	x	x		2460	Organic Chem Lab I	1
345	Organic Lab I	1	x	x				
346	Organic Lab II	1	x	x				

BIOLOGY DEGREES FOR TRANSITION STUDENTS

1. Students beginning the Biology major on the semester system must fulfill all degree requirements for the Bachelor of Science Degree (See Tables I and II).
2. Students beginning the Biology major on the quarter system may elect to complete **either** a Bachelor of Science **or** a Bachelor of Arts Degree.

Those electing the Bachelor of Science track must have completed the math and physics requirements in effect for that degree under the quarter system (or their semester aliases) **or** the appropriate semester requirements **and** Biology core courses consisting of BIOL 3010, 3030, 3050, 3070, and 4700 (or their respective quarter aliases, 313, 314, 331, 315/316, and 411) **and** Biology elective courses above BIOL 3000 which include at least two laboratory or field experiences.

Those electing the Bachelor of Arts track must have completed the minimum math and physics requirements in effect for that degree under the quarter system (or their semester aliases) **and** Biology core courses consisting of BIOL 3010, 3030, 3070, and 4700 (or their respective quarter aliases, 313, 314, 315/316, and 411) **and** appropriate Biology elective courses numbered above BIOL 3000.

3. **Students pursuing either a B.S. or B.A. degree must take Biology electives numbered above BIOL 3000 to bring the total number of Biology semester hours completed to a minimum of 34.** The exact number of electives required can be calculated by the following formula:

$$\text{Minimum Required Elective Semester Hours} = 34 - X$$

$$\text{Where } X = (\text{earned Biology quarter hours} \times 0.67) + (\text{earned semester hours for 2150-2180 and core})$$

CURRICULUM GUIDELINES FOR TRANSITION STUDENTS

Table III below summarizes the various strategies which should be employed by transition students to complete Biology degree requirements in progress. Major and related hour requirements are addressed. Every attempt has been made to cover all possible combinations of circumstances. However, some situations may occur which are beyond the scope of these guidelines. In those cases, consult your department adviser for specific instructions on how to proceed.

TABLE III. - TRANSITION GUIDELINES FOR BIOLOGY MAJOR REQUIREMENTS AND RELATED HOURS

If you have completed the following under quarters	You must take the following under semesters
BIOLOGY (Lecture Courses)	
Biology 211	Biology 2150
Biology 211 and Biology 213	Biology 2150
Biology 213	Biology 2150 and 2170
Biology 215	Biology 2170
Biology 211 and 215	Fund. Life Sciences I and II req. is satisfied
BIOLOGY (Laboratory Courses)	
Biology 212	Biology 2160
Biology 212 and 214	Biology 2160
Biology 214	Biology 2160 and 2180
Biology 214 and 216	Biology 2180
Biology 212 and 216	Fund. Life Sciences Lab. I and II req. is satisfied
MATHEMATICS	
Math 132	Math 1750 and 1760 for B.S. Math 1330 and 2600 for B.A.
Math 133	Math 1750 and 1760 for B.S. Math 2600 for B.A.
Math 134	Math 1750 and 1760 for B.S. Math 2600 for B.A.
Math 132 and 133	Math 1750 and 1760 for B.S. Math 2600 for B.A.
Math 175	Math 1760 for B.S.
Math 185 or 185 and 186	Take appropriate transition course* and complete Math 1850 and 1860 for B.S.

TABLE III (CON'T). TRANSITION GUIDELINES FOR BIOLOGY MAJOR REQUIREMENTS AND RELATED HOURS

If you have completed the following under quarters	You must take the following under semesters
PHYSICS	
Phys 207 or 207 and 208	Appropriate transition course*
Phys 213 or 213 and 214	Appropriate transition course*
CHEMISTRY	
Chem 110	Chem 1970 (011) transition course*
Chem 110 and Chem 111	Chem 1970 (012) transition course*
Chem 340	Chem 2970 (041) transition course*
Chem 340 and 341	Chem 2970 (042) transition course*

***NOTES ON TRANSITION COURSES:**

1. After a transition course is taken, the student should register for the next semester course in the sequence.
2. Only one (1) transition course in a given related area is needed or allowed.
3. Students needing CHEM 122 should register for CHEM 1290.
4. Students needing CHEM 346 may delete that requirement.

EFD/CC/WLB/s

ACADEMIC PROGRAM COMPLETION GUIDELINES

FRENCH MAJORS

Listed below are required French courses under the quarter and semester systems.

Quarter System

300 Reading French (4)
301 Conversation & Composition I (4)
302 Conversation & Composition II (4)
303 Conversation & Composition III (WAC) (4)

321 Survey of French Literature I (4)
322 Survey of French Literature II (4)
323 Survey of French Literature III (4)

341 Survey of French Civilization I (4)
342 Survey of French Civilization II (4)

401 Syntax and Stylistics I (4)
402 Syntax and Stylistics II (4)
403 Syntax and Stylistics III (WAC) (4)

300-400 level electives (2)

Total number of hours required: 50

Semester System

3010 Conversation & Composition I (3)
3020 Conversation & Composition II (WAC) (3)

3210 Survey of French Literature I (3)
3220 Survey of French Literature II (3)

3410 Survey of French Civilization I (3)
3420 Survey of French Civilization II (3)

4010 Syntax and Stylistics I (3)
4020 Syntax and Stylistics II (WAC) (4)

3000-4000 level electives (9)

Total number of hours required: 34

- If you have NOT completed the entire 301-302-303 sequence, read A on the reverse side.
- If you have NOT completed the entire 321-322-323 sequence, read B.
- If you have NOT completed the entire 401-402-403 sequence, read C.
- If you have completed all of these sequences, proceed directly to D.

Identify the statement that describes your situation in each case:

A. If you have completed:

303 ONLY
301 ONLY and earned a B- or below
302 ONLY and earned a B- or below
301 ONLY and earned a B or above
302 ONLY and earned a B or above
301 and 302
both 301 and 303 with at least a B in each
both 302 and 303 with at least a B in each

Take:

3010 ONLY
3010 AND 3020
3010 AND 3020
3020 ONLY
3020 ONLY
3020 ONLY
elective at upper level
elective at upper level

B. If you have completed:

321 or 322 or 323 ONLY and earned a C+ or below
321 ONLY and earned a B- or above
323 ONLY and earned a B- or above
322 ONLY and earned a B- or above
any 2 of the three with at least a B- in each

Take:

3210 AND 3220
3220 ONLY
3210 ONLY
3210 OR 3220 ONLY
elective at upper level

C. If you have completed:

403 ONLY
401 ONLY and earned a B- or below
402 ONLY and earned a B- or below
401 ONLY and earned a B or above
402 ONLY and earned a B or above
401 and 402
both 401 and 403 with at least a B in each
both 402 and 403 with at least a B in each

Take:

4010 ONLY
4010 AND 4020
4010 AND 4020
4020 ONLY
4020 ONLY
4020 ONLY
elective at upper level
elective at upper level

D. The remaining quarter courses have direct semester equivalents, as indicated on the chart above. Thus, for example, if you have taken French 342 but not 341, you will register for 3410.

E. If you are planning to study abroad, it is advisable to consult with your adviser regarding the courses you should take at The University of Toledo.

If you have any questions, please consult your academic adviser as soon as possible!

ELECTRICAL ENGINEERING AND COMPUTER SCIENCE DEPARTMENT
Program Planning Worksheet

Summer Sessions, 1996

Prefix and Course Number	Course Title	Quarter Credits

Fall Quarter, 1996

Prefix and Course Number	Course Title	Quarter Credits

Winter Quarter, 1997

Prefix and Course Number	Course Title	Quarter Credits

Spring Quarter, 1997

Prefix and Course Number	Course Title	Quarter Credits

Summer Sessions, 1997

Prefix and Course Number	Course Title	Quarter Credits

96-97 Projected EECS Course Offerings

The following table contains the best information we have as to when courses will be offered during the 96-97 academic year. The information is subject to change and is meant to be used, by students, to plan possible schedules during the final academic year prior to the semester calendar conversion. This document is *NOT* a contract between students and the EECS department or the University. Some changes may occur.

In the following table, a bullet (●) indicates the course is currently planned for the indicated term. A blank or empty box indicates the course is not currently planned for the indicated term.

Course Number and Title	F '96	W '97	Sp '97
ES 130 Intro. To Computing	●		●
ES 131 Intro. To Computing and Computing Appl.	●	●	●
ES 331 Electric Circuits	●	●	●
ES 332 Electric Circuits Laboratory	●	●	●
ES 334 Basic Electronics & Electric Machinery	●		●
ES 335 Basic Electronics & Electric Machinery Laboratory	●		●
ES 421 Information Theory and Coding	●		
EECS 201 Data Structures and Algorithms I	●	●	
EECS 202 Data Structures and Algorithms II		●	●
EECS 221 Logic & Computers I	●		●
EECS 223 Logic & Computers II	●	●	
EECS 224 Logic & Computers Laboratory	●	●	
EECS 231 Electric Circuit Analysis I		●	
EECS 232 Electric Circuit Analysis Laboratory		●	
EECS 233 Data Representation & Theory	●		●
EECS 240 Electric Circuit Analysis II			●
EECS 250 Assembly Language Programming	●		
EECS 301 Numerical Methods	●		
EECS 310 Network Analysis	●		
EECS 311 Signal Analysis	●	●	
EECS 322 Systems Analysis		●	●
EECS 325 Computer Organization and Architecture		●	●
EECS 330 Electronics I	●	●	
EECS 332 Electronics II		●	●
EECS 334 Electronics III	●		●
EECS 335 Electronics I Laboratory		●	●
EECS 336 Electronics II Laboratory	●		●
EECS 351 Electromagnetics I	●	●	
EECS 352 Electromagnetics II		●	●
EECS 361 Energy Conversion I		●	
EECS 362 Energy Conversion II	●		●
EECS 363 Energy Conversion Laboratory	●		●
EECS 381 Electromagnetics Laboratory	●		●

Course Number and Title	F '96	W '97	Sp '97
EECS 390 Data Communications			•
EECS 401 Software Engineering I	•	•	
EECS 402 Software Engineering II		•	•
EECS 403 Social and Ethical Implications of Computing		•	
EECS 404 Operating Systems	•		
EECS 406 Unix and C	•		•
EECS 410 Operating Systems			•
EECS 412 Communication Theory	•		•
EECS 413 Digital Communication Systems		•	
EECS 415 Digital Filter Design		•	
EECS 416 Microcomputer Systems I	•	•	•
EECS 417 Real-Time Computer Systems		•	
EECS 418 Microcomputer Systems II			•
EECS 423 Feedback Control Systems	•	•	
EECS 424 Compiler Design		•	
EECS 425 Robotics			•
EECS 430 Performance Evaluation of Computer Systems			•
EECS 431 Control Systems Design I		•	
EECS 432 Control Systems Design II			•
EECS 437 Electronic Design			•
EECS 438 Artificial Intelligence			•
EECS 440 Digital VLSI System Design I		•	
EECS 441 Digital VLSI System Design II			•
EECS 446 Advanced Systems Programming			•
EECS 458 Data Classification and Compression		•	
EECS 460 Power Electronics Laboratory			•
EECS 461 Database Systems I	•		
EECS 462 Generalized Electric Machine Models	•		
EECS 463 Database Systems II		•	
EECS 464 Power Systems Analysis I	•		
EECS 465 Power Systems Analysis II		•	
EECS 468 Power Electronics I	•		
EECS 469 Power Electronics II		•	
EECS 478 Digital Image Analysis	•		
EECS 479 Machine Vision Systems		•	
EECS 481 Computer Graphics			•
EECS 486 Programming Language Paradigms		•	
EECS 490 Computer Networks	•		
EECS 491 Senior Design Project I	•		
EECS 492 Senior Design Project II		•	
EECS 499 Introduction to Electrical Engineering Profession	•		•

EECS 405

Table 1: EE Program Course Conversions (Last Revised: 5/10/96)

Quarter Course(s)		Cr. Hr.	Grade	Term	Grade	Cr. Hr.	Semester Course(s)
EECS 100	Orientation to EECS	1				1	EECS 1000 Orientation to EECS
ENGL 111	College Composition I	5				3	ENGL 1110 College Composition I
ENGL 190	Organizational Report Writing	5				3	ENGL 2900 Organizational Report Writing
ENGL 295	or Scientific and Technical Report Writing						ENGL 2950 or Sci. and Tech. Report Writing
CHEM 110	General Chemistry I	4				4	CHEM 1230 General Chemistry I
CHEM 111	General Chemistry II	4					
MATH 185	Calculus I	4				4	MATH 1850 Calculus I
MATH 186	Calculus II	4				4	MATH 1860 Calculus II
MATH 187	Calculus III	4					
MATH 285	Calculus IV	3				4	MATH 2850 Calculus III
MATH 286	Calculus V	3					
MATH 391	Calculus VI	4				3	MATH 3860 Differential Equations
EECS 131	Introduction to Computing and Computing Appl.	3				4	EECS 1500 Data Structures I
EECS 233	Data Representation and Theory	4					
EECS 201	Data Structures and Algorithms I	4					
PHYS 213	Physics I	5				5	PHYS 2130 Physics I
PHYS 214	Physics II	5				5	PHYS 2140 Physics II
PHYS 215	Physics III	5					
EECS 231	Electric Circuit Analysis I	3				4	EECS 2300 Electric Circuits
EECS 232	Electric Circuit Analysis Laboratory	1					
EECS 240	Electric Circuit Analysis II	4					
MATH 189	Elementary Linear Algebra	3				3	EECS 2500 Numerical Methods & Linear Algebra
EECS 301	Numerical Methods	3					
EECS 221	Logic & Computers I	3				4	EECS 1100 Digital Logic Design
EECS 223	Logic & Computers II	3					
EECS 224	Logic & Computers Laboratory	2					
EECS 250	Assembly Language Programming	3				4	EECS 2100 Computer Organization & Assembly Language
EECS 325	Computer Organization & Architecture	3					

Table 1: EE Program Course Conversions (Last Revised: 5/10/96)

Quarter Course(s)		Cr. Hr.	Grade	Term	Grade	Cr. Hr.	Semester Course(s)
EECS 311	Engineering Statistics: Probability Theory	3				3	MIME 3600 Engineering Statistics I
EECS 311	Signal Analysis	3					
EECS 322	Systems Analysis	4				4	EECS 3200 Signals and Systems
PHYS 307	Atomic Physics	3				3	PHYS 3070 Atomic Physics (or Calculus Based Science Elective)
EECS 339	Solid State Electronics	3					
EECS 351	Electromagnetics I	4				4	EECS 3700 Electromagnetics
EECS 352	Electromagnetics II	4					
EECS 390	Electronics I	4				4	EECS 3400 Electronics I
EECS 334	Electronics III	4				3	EECS 3420 Electronics II
EECS 332	Electronics II	4				1	EECS 3440 Electronics Laboratory
EECS 337	Electronics Laboratory	3					
EECS 361	Energy Conversion I	3				3	EECS 3460 Electrical Energy Conversion
EECS 362	Energy Conversion I	3				1	EECS 3480 Energy Conversion Laboratory
EECS 363	Energy Conversion Laboratory	1					
EECS 428	Microsystems Design	3				4	EECS 3100 Microsystems Design
EECS 419	Microsystems Design Laboratory	3					
EECS 412	Communication Systems	3				3	EECS 4160 Communication Systems
EECS 423	Feedback Control Systems	3				3	EECS 4200 Feedback Control Systems
EECS 491	Senior Design Project I	2				4	EECS 4000 Senior Design Project
EECS 492	Senior Design Project II	3					
MIME 311	Thermodynamics I	4				3	MIME 3400 Intro in Thermal Science
ECON 115	Principles of Macroeconomics	4				3	ECON 1150 Principles of Macroeconomics or Principles of Microeconomics
ECON 120	Principles of Microeconomics	4					ECON 1200 Principles of Microeconomics
	Technical Electives	14				14	Technical Electives
	Hum./Soc. Sci./Multicultural Electives	20				13	Hum./Soc. Sci./Multicultural Electives
	Total Quarter Hours	200				128	Total Semester Hours

Guidelines for APCOG's - Page 2

students will be able to see advisers before they begin selecting their semester courses, they must be able to determine from the APCOG exactly where they are in their programs and make selections of semester courses which will meet remaining requirements. Sample APCOG's accompany these guidelines.

WLB/s

A & S GENERAL EDUCATION REQUIREMENTS FOR TRANSITION STUDENTS

Quarter Requirement	Check When Completed	Semester Equivalent (to take if quarter requirement not completed)
ENGL 111	<input type="checkbox"/>	ENGL 1110
ENGL 113 (or 114-119)	<input type="checkbox"/>	ENGL 1130 (or 1140 - 1230)
MATH 118 (or higher)	<input type="checkbox"/>	MATH 1180 (or higher)
Foreign Language 111, 112, 113, 214 (based on placement)	<input type="checkbox"/>	Foreign Language 1110 and 1120 (or 1500) 2140 If 113 completed, take 2140 If 111 completed, take transition course, 1970 001, then take 2140 If 112 completed, take transition course, 1970 002, then take 2140
HIST 101 - 112 (one course)	<input type="checkbox"/>	HIST 1010 - 1120 (one course)
ENGL 270 (or 271 - 273)	<input type="checkbox"/>	ENGL 2700 (or 2710 - 2730)
Fine Arts (one course)	<input type="checkbox"/>	Fine Arts (one course)
Additional humanities for non-humanities majors: 12 hours	<input type="checkbox"/>	Additional humanities for non-humanities majors: two courses
Social Sciences (two courses* for social sciences majors; 15 hours for non-social science majors)	<input type="checkbox"/>	Social Sciences (two courses* for social science majors; three courses* for non-social sciences majors)
Natural Sciences (two courses* for natural sciences majors; 15 hours for non-natural sciences majors)	<input type="checkbox"/>	Natural Sciences (two courses* for natural science majors; three courses* for non-natural sciences majors)
Two writing intensive courses (WAC) major major or other	<input type="checkbox"/>	Two writing intensive courses (WAC) major major or other
One U.S. Diversity course (if catalog year 924 or later)	<input type="checkbox"/>	One U.S. Diversity course
One Non-European course (if catalog year 924 or later)	<input type="checkbox"/>	One Non-European course
186 hours for degree 48 hours at 300/400 level 96 hours at 200 level or higher	<input type="checkbox"/>	124 hours for degree 32 hours at 3000/4000 level 64 hours at 2000 level or higher

*Courses must be chosen from two different departments

(Conversion) EducReq.97ND1