

**CURRICULUM CHECK SHEET**  
August 2009

The program of courses listed below satisfies the ABET accreditation criteria of 32 credits of mathematics and basic sciences, 48 credits of engineering sciences and engineering design. Any deviations must be approved by the student's advisor, department chair and dean. The University General Education Core & graduation requirements for Engineering are included. All lower division CEE courses must be completed before taking upper division CEE courses, except CEE 370 and 370L. All CEE courses must be passed within 2 attempts.

ALL COURSES MUST BE TAKEN FOR LETTER (A-F) GRADES

LOWER DIVISION											
FRESHMAN						SOPHOMORE					
Eng 100 (FW)	3		Math 242	4		CEE 270	3		CEE 271	3	
Math 241 (FS)	4		Phys 170 (DP)	4		Math 243	3		Math 244	3	
Chem 161 (DP)	3		Phys 170L (DY)	1		Phys 272 (DP)	3		CEE 370	3	
Chem 161L (DY)	1		Chem 162 (DP)	3		Phys 272L (DY)	1		CEE 370L	1	
FG	3		EE 160 or ICS 111	4		FG	3		BSE (DB)	3	
						DH or DL	3		Sp 251 (DA)	3	
H Focus (1)			E Focus (1)			O Focus (1)			W Focus (5)		

UPPER DIVISION											
JUNIOR						SENIOR					
CEE 305	3		CEE 330	4		CEE 431	3		CEE 421	3	
CEE 320	4		CEE 355	4		CEE 461, 462 or 464	3		CEE 455	3	
CEE 361	3		CEE 375	3		CEE 471 or 472	3		CEE 490	3	
Econ 120, 130 or 131 (DS)	3		CEE 381	3		CEE 485 or 486	3/4		TES	3	
ME403, GG312, Math 302 or 307	3		DS	3		CEE 489B	2		TE	3	
						CEE 489C	1				

ALTERNATIVE SENIOR YEAR TRACK					
STRUCTURES*					
CEE 471 or 472	3		CEE 421	3	
CEE 482	3		CEE 455	3	
CEE 485	4		CEE 486	3	
SME	3		CEE 490	3	
CEE 489B	2		TES	3	
CEE 489C	1				

\* Students who want to pursue the structures track should ask the department office to assign them an advisor from the structures area.

- ELECTIVES**
- BSE: Biological Science Elective**  
Micr 130; Biol 101, 123, or 171; Zool 101  
The associated laboratories are not required.  
Students interested in the environmental area are encouraged to take Micr 130 for the BSE.
- TE: Technical Elective**  
Any 400 or 600 level CEE course.  
May include a maximum of one course from  
EE 211; GG 454; ME 311; 374; ORE 411
- TES: Technical Elective with focus on Sustainability**  
A list of qualified TES courses maintained by department.
- SME: Structural Math Elective**  
ME 360, Phys 305, Math 311 (if Math 307 not taken)

- NOTES**
- Please refer to General Education Core Requirements in UH Manoa Catalog for Diversification (DH, DL, DS) and FG Foundation Courses.
  - Math 251/252/253 may be substituted for Math 241-244 above.
  - Chem 181/181L may be substituted for Chem 161/161L and Chem 162 above.
  - Writing Intensive (W) required - 5 courses (minimum of 2 in upper division).
  - One course each required for Hawaiian, Asian & Pacific Issues (H), Oral Communication (O), and Contemporary Ethical Issues (E).
  - 'C' or better required for passing Phys 170 and CEE 270.

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The program of courses listed below satisfies the ABET accreditation criteria of 32 credits of mathematics and basic sciences, 32 credits of engineering sciences, and 16 credits of engineering design. Any deviations must be approved by the student's advisor, department chair, and dean. The University General Education Core and graduation requirements for Engineering are included. A total of 124 credits are required

**ALL COURSES MUST BE TAKEN FOR LETTER (A-F) GRADES**

**LOWER DIVISION**

**FRESHMAN**

**SOPHOMORE**

Eng 100 (FW)	3	EE 160	4	EE 211	4	EE 213	4
Math 241 (FS)	4	Math 242	4	EE 260	4	Math 244	3
Chem 161 (DP)	3	Phys 170 (DP)	4	Math 243	3	Phys 274	3
Chem 161L (DY)	1	Phys 170L (DY)	1	Phys 272 (DP)	3	EE 296	1
FG	3	Chem 162 (DP)	3	Phys 272L (DY)	1	Sp 251 (DA)	3
						Econ 120, 130 or 131 (DS)	3
H Focus (1)		E Focus (1)		O Focus (1)		W Focus (5)	

**UPPER DIVISION**

EE 315	3	EE 323	3	Major EE	3	EE 496	3
EE 324	3	EE 323L	1	(Lab) EE	1	EE 495	1
EE 342	3	TE	3	Major EE	3	Major EE	3
EE 371	3	Major EE	3	TE	3	Major EE	3
Math 307	3	(Lab) EE	1	(Lab) TE	1	FG	3
		EE 396	2	DH or DL	3	DS	3
		EB	3				

EE Electives - One track (major) from below, plus two TEs (one of which must be from a second track) with one lab.

**ELECTRO-PHYSICS TRACK** plus 6 credits from:

EE 326, 326L      EE 422, 422L, 423, 425, 427  
EE 327            EE 328, 328L, 426  
EE 372, 372L    EE 473, 474, 475, 477

**SYSTEMS TRACK** plus 6 credits from:

EE 341, 341L      EE 344, 442, 446, 449  
EE 351, 351L      EE 452, 453  
EE 415            EE 416, 417

**COMPUTER TRACK** plus 6 credits from:

EE 361, 361L      EE 344, 406, 461, 449  
EE 366            EE 467, 468, 469  
EE 367, 367L

**ALTERNATIVE TRACK**

A student along with a faculty member may propose an alternate track, which must be (1) equivalent in rigor & breadth to the above tracks; (2) endorsed by another faculty member; & (3) approved by the Dept.'s Undergraduate Curriculum Committee.

**NOTES**

1. Please refer to General Education Core Requirements in UH Manoa Catalog for Diversification (DH, DL, DS) and FG Foundation Courses.
2. Math 251/252/253 may be substituted for Math 241-244 above.
3. Chem 181/181L may be substituted for Chem 161/161L and Chem 162 above.
4. Writing Intensive (W) required - 5 courses (minimum of 2 in upper division).
5. One course each required for Hawaiian, Asian & Pacific Issues (H), Oral Communication (O) and Contemporary Ethical Issues (E).
6. Enrollment in EE courses requires a grade of 'C-' or better in all prerequisite courses.
7. Engineering Breadth (EB) is satisfied by CEE 270, ME 311, or a CEE, ME, OE or BE course at the 300-level or higher; or a physical or biological science course at the 300-level or higher and approved by the Department's Undergraduate Curriculum Committee.

TE - EE course 300 or above

APPROVAL FOR GRADUATION: Initial: \_\_\_\_\_ Date: \_\_\_\_\_

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ALL COURSES MUST BE TAKEN FOR LETTER (A-F) GRADES

LOWER DIVISION

FRESHMAN

SOPHOMORE

Eng 100 (FW)	3	Math 242	4	CEE 270	3	CEE 271 or ME 271	3
Math 241 (FS)	4	Phys 170 (DP)	4	Math 243	3	Math 244	3
Chem 161 (DP)	3	Phys 170L (DY)	1	Phys 272 (DP)	3	Econ 120, 130 or 131 (DS)	3
Chem 161L (DY)	1	Chem 162 (DP)	3	Phys 272L (DY)	1	Math 302 or 307	3
Math 190	1	Sp 251 (DA)	3	EE 211	4	DS	3
FG	3			ME 213	3		
H Focus (1)		E Focus (1)		O Focus (1)		W Focus (5)	

UPPER DIVISION

ME 311	4	ME 312	3	ME 422	3	ME 402	2
ME 331	3	ME 322	3	ME 480	3	ME 482	3
ME360	3	ME 341	3	ME 481	3	TE	3
ME 371 or CEE 370	3	ME 342	2	TE	3	DH or DL	3
ME 375	3	ME 372	3	TE	3	FG	3
		ME 374	3				

ELECTIVES

TE: Technical Electives (9 credits).

Three courses that can be selected from ME 400-level technical electives (3), one of which can be replaced with a non-ME course (3) (with approval from Dept. Chair) or Phys 274 or Biol 171 without approval; and a second that can be replaced with an ME 600-level course (3) (3.00 GPA minimum and approval from Dept. Chair) or ME 499 (3).

NOTES

1. Please refer to General Education Core Requirements in UH Manoa Catalog for Diversification (DH, DL, DS) and FG Foundation Courses.
2. Math 251/252/253 may be substituted for Math 241-244 above.
3. Chem 181/181L may be substituted for Chem 161/161L and 162 above.
4. Writing Intensive (W) required - 5 courses (minimum of 2 in upper division). ME 342, ME 402, ME 480 and ME 481 satisfy the W-focus requirement.
5. One course each required for Hawaiian, Asian & Pacific Issues (H), Oral Communication (O) and Contemporary Ethical Issues (E). Some of these may be met with ME 480 (E), and ME 482 (O).
6. A grade of 'C' or better is required in ME 311 prior to registration in ME 312 and ME 322.
7. Phys 305 or Math 407 may be substituted for ME 360.

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Date: \_\_\_\_\_