

Bill Hodgkiss
Calit2 #5310

Major code: EC84
(ECE M.Eng.)

Fall 2006	W'06	S'06	F'07
ECE 166	ECE251AN	ECE251BN	ECE 251DN
ECE 254	ECE265A	ECE 265B	ECE 251CN
ECE 255AN			
ECE 259AN			
XX			
<u>Focus 2:</u>	<u>Breadth:</u>	<u>Tech. el.:</u>	
254	265A	259A ← {Channel Coding}	
255AN	265B	264A ← {Algebraic Coding}	
251AN	{Coms. Circuit design} (Focus 3)		
251BN			
251DN			
<u>Prof. el.:</u>			
166			
258A			
258B			

Master of Engineering (M.Eng.) Degree Planner

Focus Requirement (at least 20 units)

- Five closely related graduate courses in ECE/CSE
- Must be selected from one of the focus groups listed below

ECE 251 AN
ECE 251 BN
ECE 251 DN
ECE 254
ECE 255 AN

Breadth Requirement (at least 8 units)

- Graduate courses in ECE/CSE that are distinctly different from one of the other focus groups

ECE 265 A
ECE 265 B

Technical Electives (8 units)

- Any graduate courses in ECE, CSE, Math, or Physics
- Four units may be either ECE 298 (Independent Study), or ECE 299 (Research)
- Other technical courses may be selected with the approval of the faculty advisor and the ECE Graduate Affairs Committee

ECE 259 AN
ECE 264 A

Professional Electives (12 units)

- See possible choices below
- *(see below)

ECE 166
ECE 258 A
ECE 258 B

Focus 1: Applied Physics

(Applied Optics and Photonics; Electronic Devices and Materials)

Curriculum Advisor: S. Radic radic@ece.ucsd.edu EBUI 3404
Curriculum Advisor: V. Lomakin vitaliy@ece.ucsd.edu EBUI 4606

Applied Electromagnetic Theory *ECE 222A-B-C*
Solid State Electronics *ECE 230A-B-C*
Semiconductors *ECE 236A-B-C-D*
Materials Science *ECE 238A-B*
Materials Science *MS 201A-B-C*
Optics *ECE 240A-B-C*
Optics *ECE 241A-B-C*

Focus 2: Communications and Signal Analysis

(Communications Theory and Systems; Signal and Image Processing)

Curriculum Advisor (CTS): R. Lugannani lug@ece.ucsd.edu EBUI 4801
Curriculum Advisor (SIP): P. Cosman pcosman@ece.ucsd.edu EBUI 6407

Random Processes *ECE 250*
Digital Signal Processing *ECE 251AN-BN-CN-DN*
Speech Compression and Recognition *ECE 252A-B*
Digital Images Analysis *ECE 253A-B*
Detection Theory *ECE 254*
Information Theory *ECE 255AN*
Source Coding I and II *ECE 255BN-CN*
Time Series Analysis and Applications *ECE 256A-B*
Wireless Communications *ECE 257A-B*
Digital Communications *ECE 258A-B*
Channel Coding *ECE 259AN-BN-CN*
Parameter Estimation *ECE 275A-B*
Special Topics in Robotics and Control Systems (offerings vary annually) *ECE 285*

Focus 3: Electronic Circuits and Systems

(Computer Engineering; Electronic Circuits and Systems)

Curriculum Advisor (ECS): L. Larson larson@ece.ucsd.edu EBUI 5607
Curriculum Advisor (ECS): I. Galton galton@ece.ucsd.edu EBUI 5606
Curriculum Advisor (CE): C. Schurgers curts@ece.ucsd.edu EBUI 4405
Curriculum Advisor (CE): K. Yun kyy@ece.ucsd.edu EBUI 4402

Applied Electromagnetic Theory *ECE 222A-B-C*
Solid State Electronics *ECE 230A-B-C*
Semiconductor Heterostructure Materials *ECE 236A-B-C*
Random Processes *ECE 250*
Digital Signal Processing I and II, Filter Banks & Wavelets, Array Processing *ECE 251 AN-BN-CN-DN*
VLSI Circuits *ECE 260A-B-C*
Analog IC Design *ECE 264A-B-C-D*
Communication Circuit Design *ECE 265A-B*
Computer Architecture *CSE 240A, 240B*
Computer Aided Design *CSE 242A, 243A*

Professional Electives (possible choices):

- Managerial Economics (IR/PS) *IRCO 401*
Accounting (IR/PS) *IRCO 420*
Finance (IR/PS) *IRCO 421*
- Any ECE/CSE upper division undergraduate courses in preparation for further graduate level work. *(see below)
 - Any ECE/CSE graduate courses to provide additional breadth or depth in one or more areas.
 - Courses outside of ECE or CSE must be approved by a faculty advisor

***IMPORTANT NOTE: Only a maximum total of 12 units from upper division undergraduate courses can be used towards the degree.**

This form is to help you design your degree plan. You should consult with your advisor or curriculum advisor or another ECE faculty member at least once per quarter and have this approved before finalizing any course of action.

Upon approval, this form must be submitted to the ECE Graduate Student Affairs office in EBUI, Second Floor

Advisor's Signature

ERIK GRINDHEIM

Date

9/19/06

Student Name

Revised on 08/2006

PID

MASTER OF ENGINEERING

Salient features of the Master of Engineering (M. Eng.) program include the following:

- ✓ it can be completed in four quarters at full-time or eight quarters at half time;
- ✓ it does not require a thesis, a research project, or a comprehensive exam; and
- ✓ it has an option of three courses in business, management, and finance.

Course Requirements:

- The Focus Requirement: The course selection must include at least twenty (20) units / five (5) quarter courses from within one of the focus areas. In some cases it may be appropriate to select five closely related courses from two of the focus areas. Such cases must be approved by a faculty adviser and the ECE Graduate Affairs Committee.
- The Breadth Requirement: The minimum breadth requirement is eight (8) units / two (2) quarter courses of ECE/CSE graduate courses selected from among the courses within the focus areas, in an area distinctly different from that of the focus requirement.
- Technical Electives: Two (2) technical electives may be any graduate courses in ECE, CSE, Physics, or Mathematics. Other technical courses may be selected with the approval of the faculty adviser and the ECE Graduate Affairs Committee. Technical electives may include a maximum of four units of ECE 298 (Independent Study), or ECE 299 (Research).
- Professional Electives: The three (3) professional electives may be used in several ways:
NOTE: Use of other courses to satisfy the Professional Elective requirement must be approved by the faculty adviser.
 - i. for the IP/Core 401, 420, 421 series in business, management, and finance;
 - ii. for upper-division undergraduate technical courses specified as prerequisites for graduate-level focus, breadth, or technical elective courses taken to satisfy the M. Eng. degree requirements; or
 - iii. for additional graduate technical electives.

Other Requirements:

- The forty-eight (48) units of required course work must be taken for a letter grade (A-F), except for ECE 298 or 299, for which only S/U grades are allowed. Courses for which a D or F is received may not be counted.
- You must have a GPA equivalent to 3.0 or above in upper division and graduate course work, with a total of no more than eight units of "F" and/or "U" grades.
- The minimum residence requirement is three (3) quarters.