



Program of Studies

Power Systems & Sustainable Energy MS

Name: _____ Student SCU # _____

Expected Graduation Date: _____ POS VERSION: NEW UPDATED FINAL

B.S. DEGREE: CIVIL COMPUTER SCIENCE ELECTRICAL MECHANICAL OTHER _____

1. REQUIREMENTS:

POWER SYSTEM FOUNDATION COURSES	<u>Units</u>	<u>Grade</u>
ECEN 280/MECH 287 introduction to Alternative Energy Systems	2	
ECEN 281A Power Systems: Generation and Transmission and ECEN 281B Power Systems: Distribution OR ECEN 281E Power Systems	4	
ECEN 285 Introduction to the Smart Grid	2	
POWER SYSTEM CORE COURSES *Engr 272 & 344 fulfill Graduate Core Engineering and Society.		
EMGT 255 Managerial Accounting for Operating Managers	2	
EMGT 380 Introduction to Systems Engineering Management	2	
*ENGR 272 Energy Public Policy	2	
*ENGR 344 Artificial Intelligence and Ethics	2	
APPLIED MATH COURSES		
AMTH 245 Linear Algebra I and AMTH 246 Linear Algebra II OR AMTH 247 Linear Algebra	4	
4 units in AMTH, to be selected in consultation with academic advisor	4	

2. SPECIALIZATION: SELECT ONE TRACK

Mechanical Engineering	<u>Units</u>	<u>Grade</u>
ECEN 231 Power System Stability & Control	4	
ECEN 287/MECH 287 Energy Storage Systems	2	
MECH 228 Energy Conversion and Conservation	4	
MECH 239 Solid State Power Generation and Energy Harvesting	4	
Electrical Engineering		
ECEN 231 Power System Stability & Control	4	
ECEN 287/MECH 287 Energy Storage Systems	2	
ECEN 288 Energy Management Systems OR ECEN 236 Linear Control Systems	2	
ECEN 353 DC to DC Power Conversion	2	
Computer Science Engineering		
CSEN 281 Pattern Recognition and Data Mining OR CSEN 240 Machine Learning	4	
CSEN 243 Internet of Things	4	
CSEN 266 Artificial Intelligence	4	
Civil Engineering		
CENG 288 Emerging Decision and Risk Analysis	4	
CENG 219 Designing for Sustainable Construction	4	
CENG 249 Civil Systems Engineering	4	

3. **Elective Courses:** *Must be approved by advisor. Maximum 9 thesis units.*

<u>Course #</u>	<u>Course Title</u>	<u>Units</u>	<u>Grade</u>

4. **Graduate Core Requirements:** Must take at least 1 course from the 2 graduate core areas (minimum 4 units). **NO WAIVERS OR SUBSTITUTIONS WILL BE ACCEPTED.**

<u>Graduate Core Area</u>	<u>Course #</u>	<u>Course Title</u>	<u>Units</u>	<u>Grade</u>
Engineering and Society				
Professional Development				

5. **Transfer Credit:**

A maximum of 9 quarter units or 6 semester units may be transferred from another accredited institution. Only courses completed with a grade of C- or higher are eligible for transfer credit. Extension, continuing education, and online courses are not accepted. BS/MS students may transfer up to 20 graduate-level units completed while pursuing their BS degree.

<u>Institution</u>	<u>Course</u>	<u>SCU Equivalent</u>	<u>Units</u>	<u>Grade</u>	<u>Year</u>

GRADUATION REQUIREMENTS

<u>TOTALS</u>	
Transfer Units (9 quarter units maximum) (BS/MS 20 units maximum)	
Total SCU Units	
Total Units (46 quarter units minimum)	
Current Cumulative GPA	

I understand that it is my responsibility to:

- Ensure the transcripts for transfer credits are sent to the Graduate Services Office.
- Obtain my advisor's approval and signature of this program and of any subsequent changes needed.
- Complete the program as approved with a minimum of 46 units and a 3.0 cumulative GPA with no grade below C-.

Student Signature/Date: _____ / _____

Director Signature/Date _____ / _____

Maryam Khanbaghi