B.A. in Network and Digital Technology
Curriculum Chart 2012-2013

Math

MATH 19A
Calculus

AMS 10*
Math Methods for Engineers I

AMS 20*
Math Methods for Engineers II

OR

MATH 19B
Calculus

MATH 21**
Linear Algebra

MATH 24**
Differential Equations

MATH 23A
Multivariable Calculus

CMPE 16 or 16H
Discrete Math

CMPE 185#
Tech Writing

Core Courses

CMPE 13/L*
Computer Sys. & C Programming

CMPE 101
Abstract Data Types & Algorithms

CMPE 12/L*
Computer Systems & Assembly Language

CMPE 100/L
Logic Design

CMPE 12B/M
Data Structures

CMPE 150/L*
Intro Computer Networks

CMPE 125/L
Logic w/ Verilog

CMPE 185#
Tech Writing

Electives
(from Approved List of Upper Division Electives on reverse)

1. __________________________

2. __________________________

3. __________________________

Capstone*
(choose one)

CMPS 115
Software Methodology

CMPE 118/L
Introduction to Mechatronics

CMPE 121/L
Microprocessor System Design

CMPE 158
Network Management & Operations

CMPE 125/L
Logic w/ Verilog

Science

PHYS 5A/L or 6A/L
Mechanics

PHYS 5C/N or 6C/N
Electricity & Magnetism

Exit Survey
http://ua.soe.ucsc.edu/exit-survey?Type=1

* Preferred
** Students who complete Math 21 and Math 24 (or the equivalents) in lieu of AMS 10 and 20 are strongly encouraged to take the Matlab self-paced tutorial http://matlab-training.soe.ucsc.edu/ , or CMPE 8, prior to enrolling into EE 101/L.
† May substitute with CMPS 5J AND CMPS 11
* This course must be in addition to the three Electives you take.
# Satisfies the DC requirement

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Approved List of Upper Division Electives

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| AMS 147 Computational Methods and Applications | CMPS 104A Compiler Design I | CMPS 181 Database Systems II |
| CMPE 107 Probability and Statistics for Engineers | CMPS 104B Compiler Design II | CMPS 183 Hypermedia and the Web |
| CMPE 108 Data Compression | CMPS 109 Advanced Programming | EE 103 Signals and Systems |
| CMPE 110 Computer Architecture | CMPS 111 Operating Systems | EE 130/L Optoelectronics & Photonics |
| CMPE 112 Computer and Game Console Architecture | CMPS 112 Comparative Prog. Langs. | EE 135/L Electro. Fields and Waves |
| CMPE 113 Parallel Programming | CMPS 115 Software Methodology | EE 136 Engr. Electromagnetics |
| CMPE 118/L Intro to Mechatronics | CMPS 116 Software Design Project | EE 145/L Properties of Materials |
| CMPE 121/L Microprocessor System Design | CMPS 122 Computer Security | EE 151 Communications Systems |
| CMPE 125/L Logic Design with Verilog | CMPS 129 Data Storage Systems | EE 152 Introduction to Wireless Communications |
| CMPE 131 Human-Computer Interaction | CMPS 130 Computational Models | EE 153 Signal Processing |
| CMPE 151/L Networks Administration | CMPS 132 Computability and Complexity | EE 154 Feedback Control Systems |
| CMPE 156/L Network Programming | CMPS 140 Artificial Intelligence | EE 157/L RF Hardware Design |
| CMPE 158 Network Management and Operation | CMPS 142 Machine Learning and Data Mining | EE 171/L Analog Electronics |
| CMPE 167/L Sensor and Sensor Technologies | CMPS 146 Game AI | EE 172 Advanced Analog Circuits |
| CMPE 173/L High Speed Digital Design | CMPS 160/L Computer Graphics | EE 175/L Energy Generation and Control |
| CMPE 177 Applied graph Theory/Algor | CMPS 161/L Visualization & Computer Animation | TIM 206 Optimization Theory and Appl. |
| CMPS 101 Algorithms and Abstract Data Types | CMPS 164/L Game Engines and Game Engines Lab |
| CMPS 102 Analysis of Algorithms | CMPS 180 Database Systems |

Or Any 5-Credit CS, CE, or EE Graduate Course

At most, one elective may be substituted by an upper-division individual or field study (CMPE, CMPS, EE 193 or 198) with approval. A single course may not satisfy multiple major requirements.

STUDENT'S NAME: _________________________  FACULTY ADVISOR: _________________________

STAFF ADVISOR: _________________________

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