Department of Electrical and Computer Engineering

Minor in Electrical Engineering (EEEM)

Credits required = 18*  *A minimum of 9 credits are required at the 3000-level or higher

Required Courses - 8 credits

______ EE 2112 Electric Circuits II and Lab (4)
______ EE 2174 Digital Logic and Lab (4) (pre-req: CS1111 or CS1121 or EET2241)

Elective Courses – 10 credits minimum from a combination of EE Core and EE Focus course lists.

EE Core Course List

Choose 3 to 7 credits from the list below:

______ EE 3010 Circuits and Instrumentation (3)
______ EE 3090 Geometrical and Wave Optics (3)
______ EE 3120 Electric Energy Systems (3)
______ EE 3131 Electronics (4)
______ EE 3140 Electromagnetics (3)
______ EE 3160 Signals and Systems (3)
______ EE 3171 Microcontroller Applications (4)
______ EE 3180 Intro to Probability & Random Signal Analysis (3)

EE Focus Course List

Choose 3 to 7 additional credits from the list below:

______ EE 3190 Optical Imaging and Sensing (3)
______ EE 3250 Intro to Communications Theory (3)
______ EE 3261 Control Systems (3)
______ EE 3290 Photonic Material & Devices (4)
______ EE 3373 Intro to Programmable Controllers (3)
Any EE course between EE4200 – EE4499

Typical beginning course sequences:

EE3010 -> EE2112
CS1111 (fall) -> EE2174

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Students pursuing the minor in Electrical Engineering (EEEM) may choose to have a ‘mini-focus area’ in the field of electrical and computer engineering. Look up course pre/co-requisite info and semester offerings. May take up to four semesters, or three after completion of EE3010.

Examples of focus course sequences: Minimum 10 credits:

Control:  EE3160 – EE3261 – EE4262 + choice (EE4219, EE3373, EE4777)

Electronics:  EE3131 – EE4231 - choice (EE4271, EE4240)

Microcontrollers: EE3171 – EE4271 + choice elective

Photonics – EE3090 – EE3190 + choice (EE3290, EE4490)

Power/Energy: EE3120 – EE4221 – EE4222 and EE4226 (power grid technology)

Power Electronics – EE3120 – EE4227 + EE4228 + choice elective

Signal Processing – EE3160 – EE4252 – EE4253

Contact: Judy Donahue, Academic Advisor, EERC 131, 487-2550, eceadvise@mtu.edu

10/5/2016 jmd