American University of Sharjah
College of Engineering, Department of Electrical Engineering
Intelligent Systems and Mechatronics Engineering Catalog 2023 - onward

AUS | الجـامعـة الأمـيـركـيـة فـي الـشـارقـة
American University of Sharjah

First Year

| Fall (16 cr) | Spring (16 cr) |

- NGN 110 Intro. to Eng. & Comp (2 cr)
- NGN 112 Int to AI and Data Analytics (3 cr)
- MTH 103 Calculus I (3 cr)
- MTH 104 Calculus II (3 cr)
- PHY 101 + Lab General Physics I (4 cr)
- PHY 102 + Lab General Physics II (4 cr)
- CHM or BIO 101 + Gen Chemistry I or Biology I+Lab (4 cr)
- Free Elective (3 cr)
- WRI 101 Academic Writing I (3 cr)
- WRI 102 Academic Writing II (3 cr)

Second Year

| Fall (17 cr) | Spring (17 cr) |

- MTH 225 Linear Algebra & Diff Equats (3 cr)
- MCE 223 Mechanics of Materials (3 Cr)
- NGN 211 Intro. to Eng Prob and Statistics (3 cr)
- ISM 243 Electronics Circuits (3 cr)
- ELE 211 Electric Circuits I (3 cr)
- ISM 231 Thermal Fluid Sciences (3 Cr)
- MCE 224 Statics & Dynamics (3 cr)
- ISM 216L Comp Apps in Int Sys and MTR I (1cr)
- ISM 210 Dig Sys Microcontr Systems (4 cr)
- MCE 216L Int to Eng Drawing and Workshop (1 cr)
- MCE 236L Solid Modeling (1 Cr)
- ENG 204 Adv. Acad. Writing (3 cr)
- GER-Core Hist_Culture_Arab (3 cr)

Third Year

| Fall (17 cr) | Spring (16 cr) |

- ISM 316L Comp App in Int Sys and MTR II (1cr)
- MCE 325 Numerical Method (3 Cr)
- ISM 351 Signal Proc in Intellig Systs (3 cr)
- ISM 371 Electric Motors and Drives (3 cr)
- ELE 360 Prob & stoch processes (3 Cr)
- ISM 382 Connectivity in Int Systems (3 cr)
- ELE 342L Electronic Circuits Lab (1 cr)
- ISM 383 Learning in Int Systems (3 cr)
- ISM 361 MTR systems and Instr (3 cr)
- IEN 301 Innov. & Entrepreneurship (3 cr)
- ELE 353/MCE410 Control Systems I (3 cr)
- GER-Core Arts_Literature (3 cr)
- ISM 364L Measurements & Control Lab (1 cr)

Fourth Year

| Fall (17 cr) | Spring (14 cr) |

- ISM 490 ** Design Project I (1 cr)
- ISM 491 Design Project II (2 cr)
- MCE 464 Int to Robotics (3 cr)
- Major Elective (3 cr)
- Major Elective (3 cr)
- Free Elective (3 cr)
- Major Elective (3 cr)
- GER-Core Culture_Critical (3 cr)
- Major Elective (3 cr)
- GER-Core (3 cr)
- GER-Core Human Interaction Behavior (3 cr)
- ISM 391L Int sys and MTR design lab (1cr)

Summer

- ISM 397 ** Professional Training (2 cr)

Legend:
→ Prerequisite
⇢ Prerequisite/Concurrent

* In ISM status
** Must have taken at least 5 courses of 300 or 400 level courses

This is an unofficial flowchart for the Department of Electrical Engineering. It has been prepared to assist students in planning their schedule. The official curriculum and courses are listed in the current version of The American University of Sharjah Catalog. The Department of Electrical Engineering may change course prerequisites and co-re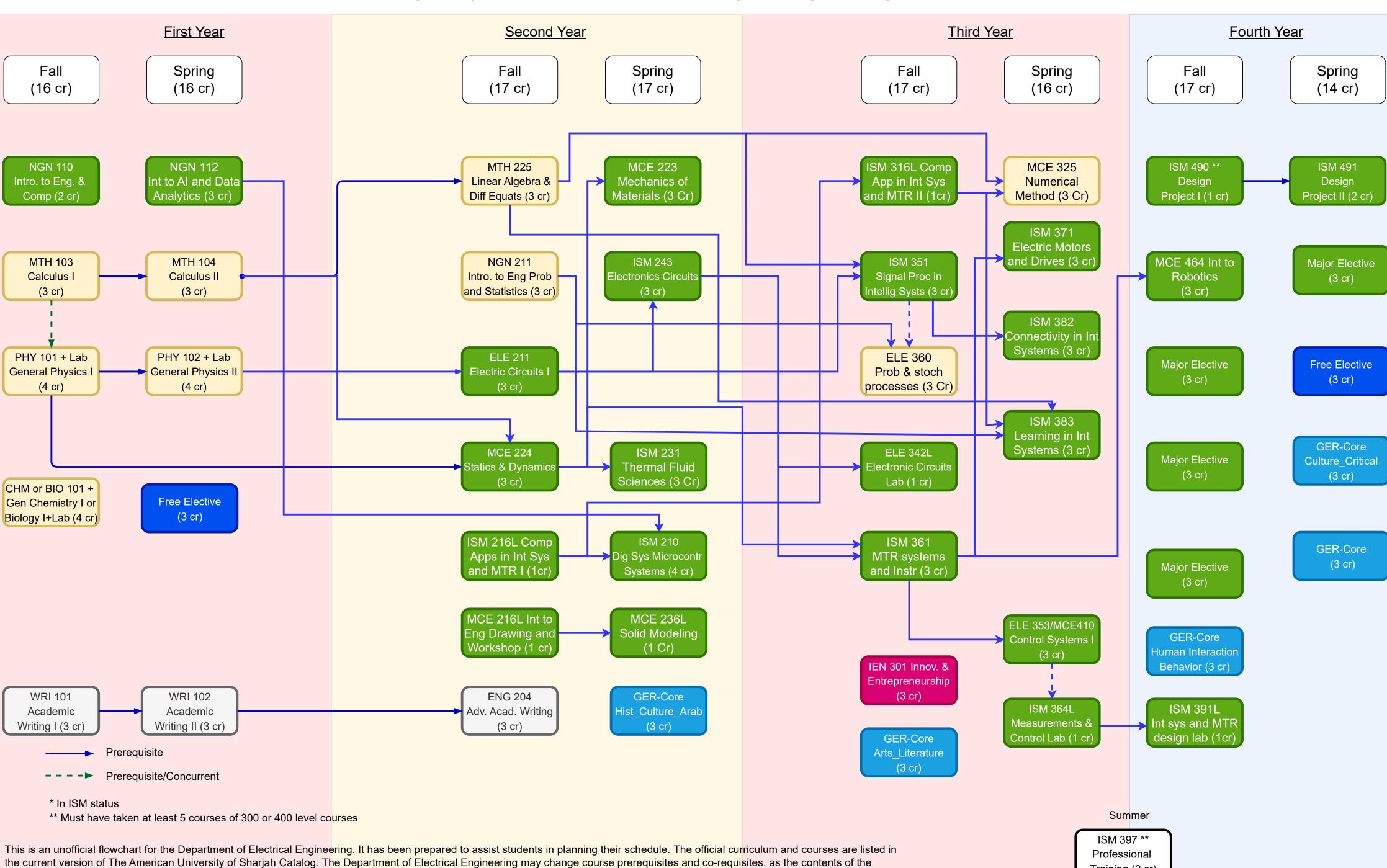quisites, as the contents of the courses evolve to keep pace with changing technology. Students must consult with their advisors prior to registration to ensure correct course sequencing.

Revised October 2022