B.S. Multidisciplinary Engineering Technology – Mechatronics Focus -- 2018-2019* Catalog

**Core Curriculum Courses**
- ENGL 104: Comp & Rhetoric
- Math Elect: MATH 304, 308, or STAT 302

**Math and Science Courses**
- CHEM 107/117: Engr Chem w/Lab
- PHYS 206: Mechanics
- PHYS 207: Electricity & Optics

**Major Courses**
- Fall: Math Elect, 3-0-3
- Spring: Math Elect, 3-0-3

- **Red** indicates Mechatronics Focus
- **Gray Area:** Upper level technical courses. Students must complete with C or better prior to undertaking

### Notes:
- MXET Students must only take MXET-required courses in first semester in program
- If electives are selected from ICD list, they will double count as UCC and ICD requirement
- Math elective can be MATH 304 308, or STAT 302 or by written approval of MXET Program Coordinator

- * indicates Mechatronics Focus
- ** Approval by MXET Prog Coord prior to undertaking

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- **FRESHMAN**
  - **FALL**
    - UCC XXX: 3-0-3 Core
    - ENGR 102: 2-0-2 App Com for Eng
    - CHEM 107/117: 3-3-4 Engr Chem w/Lab
    - Math 151: 3-2-4 Engr Math I
  - **SPRING**
    - UCC XXX: 3-0-3 Core
    - ENGR 216: 1-3-2 Mech & Phys Sys
    - PHYS 206: 3-0-3 Mechanics
    - PHYS 207: 3-0-3 Electricity & Optics

- **SOPHOMORE**
  - **FALL**
    - ENGR 217: 1-3-2 EM & El-Mc Sys
    - ESET 210: 3-3-4 Circuits
  - **SPRING**
    - Choose one course that covers both
    - ESET 350: 3-3-4 Analog Electronics
    - ESET 269: 2-2-3 Embedded Systems Design in C
    - ESET 349: 3-3-4 uControl Arch *
    - ESET 369: 3-3-4 Emb SyS S/W *

- **JUNIOR**
  - **FALL**
    - Choose one course that covers both
    - ESET 359: 3-3-4 Instrumentation
    - ESET 365: 3-3-4 Mechatronics 1 *
    - ESET 370: 3-3-4 Thermo for Tech
  - **SPRING**
    - Choose one course that covers both
    - ESET 419/429: 2-2-3 High Imp Exp **
    - ESET 420/422: 0-6-2 ET Capstone I
    - ESET 420/422: 0-6-2 ET Capstone II

- **SENIOR**
  - **FALL**
    - UCC XXX: 3-0-3 Core
    - ICD: 3 credits Core
    - ESET 219: 3-3-4 Circuits
    - ESET 356: 3-3-4 Prod Desg Mod *
    - ESET 357: 3-3-4 Mech Appl I
    - MMET 207: 2-2-3 Metallic Materials
    - MMET 361: 2-2-3 Mechanics for Tech
    - MMET 363: 3-3-4 Fluid Mech Pow *
    - MMET 370: 3-3-4 Mech Appl II
    - MMET 375: 2-2-3 Dynamics
    - MMET 380: 2-3-3 Mechatronics 2 *
    - MMET 400: 2-3-3 Mechatronics II *
    - Tech Elect 2 credits 300-400 Level *
    - Tech Elect 2 credits 300-400 Level *

Approved Technical Electives or by written approval of MXET Program Coordinator

- ENGR 489: Intellectual Property
- ENGR 315: Networking
- ENGR 415: Advanced Networking
- ENGR 444: Building Energy Management Systems
- ESET 455: Wireless Communications
- ESET 456: Embedded Sensors and Internet of Things (IoT)
- ESET 469: Embedded Real Time Software Development
- MMET 380: Computer-Aided Manufacturing
- MMET 463: Mechanical Design Applications II