

School of Engineering and Engineering Technology
**ELECTRICAL & COMPUTER ENGINEERING, B.S.
MECHATRONICS CONCENTRATION (ECMC)**

2024-25

APPROVED ELECTIVES LIST

(Version date: 5/12/2024)

GENERAL EDUCATION and LETU THEOLOGY AND VOCATION ELECTIVES

Biblical Engagement Electives

Any BIBL course numbered 2000-level or above

Civic Engagement Electives

Any HIST, INTL, POLS, ECON, or CRIJ

Humanities & Fine Arts Electives (Formerly Ingenuity Electives)

Cross-Cultural (CCLT 3203 only); Fine Arts (HUMA); Literature (All ENGL 2000-level or above courses *except* ENGL 2603, ENGL 3213, ENGL 3223, ENGL 3931, ENGL 4923, and ENGL 4933); Philosophy (PHIL); Music (MUSC); Foreign Language.

Theological Engagement Electives

2000-level or above BIBL; CCLT 3103 Cultural Anthropology; CCLT 3203 Religions of the World; CCLT 4103 Biblical and Strategic Paradigms for Mission; CMIN 3303 Evangelism and Discipleship; CMIN 3403 Ministry of Teaching; THEO 3063 Christian Ethics; THEO 3103 Christian Doctrine; THEO 3133 The History of Christian Thought; THEO 3203 Christian Apologetics; THEO 49X3 Special Topics classes that engage Theology and specific disciplines

DISCIPLINE SPECIFIC ELECTIVES

Note: All discipline specific engineering elective credits require advisor approval. Ensure that you speak to your advisor about elective credit selections BEFORE you enroll in a course!

Math Elective

3 hrs approved elective credit required; select one of the following MATH courses:

MATH 2303 Linear Algebra

MATH 4403 Numerical Analysis

Catalog Requirement:

Approved engineering course or Computer Science course (3 hrs.)

See other side for Technical Electives

Approved Technical Elective Courses for ECMC concentration

Catalog Requirement:

Any approved engineering course or COSC course

Approved engineering course or COSC course (3 hrs required)

Any BEGR 3000+, CVGR3000+, EEGR 3000+, ENGR 3000+, MEGR3000+, MJEG 3000+ course

BEGR 3133 Bioinstrumentation

COSC 2103 Computer Science II

ENGR 2313 Materials Engineering

ENGR 4951 Junior Design Project I

ENGR 4952 Junior Design Project II

MEGR 3713 Thermodynamics

MJET 2023 Materials Joining Fundamentals

MJET 2021 Materials Joining Fundamentals Laboratory

Special topics courses offered by the School of Engineering will be evaluated on a course by course basis as to their suitability for General Elective credit. Students should discuss eligibility of the course as Technical Elective credit before enrolling.

NOTE: Not all of the courses listed above are 3 credits hrs. It is up to you as the student to ensure you have at least 3hrs total credit for your technical electives.