LEVEL II FORM (4/15)

Please attach/submit additional documents as needed to fully complete each section of the form. See information about Level II proposals.

I. DEPARTMENT / PROGRAM:

Applied Computing and Engineering Technology / Electronics Technology

II. SUMMARY:

This proposal is to add a program option, Robotics Technology, to the existing Electronics Technology program.

Recent AAIP (Academic Alignment and Innovation Program) report recommended that the Electronics Technology program “create new program options” to strengthen the program and to attract more students to the program.

Today, robotics is a rapidly growing field, as technological advances continue; researching, designing, and building new robots serve various practical purposes, whether domestically, commercially, or militarily. Many robots do jobs that are hazardous to people such as defusing bombs, mines and exploring shipwrecks. Robotics is an essential component in many modern manufacturing environments. As factories increase their use of robots, the number of robotics–related jobs grow and have been observed to be steadily rising.

Robotics Technology is a multi-disciplinary program which combines a variety of fields in engineering technology, such as automation, electronics, and software to create machines to take over work that humans have traditionally done, especially dangerous work and large-scale manufacturing work.

The Robotics Technology is a Science, Technology, Engineering, and Mathematics (STEM) program.

The Robotics Technology Program offers students a broad foundation in electronics, semiconductor devices and circuits, digital logic, microprocessors, control systems and industrial automation, robotics, human-robots interfacing, instrumentation, high and low-level programming and interfacing, and software applications.

The program utilizes a focused hands-on instructional approach with an emphasis on real-world applications. The curriculum includes numerous lab experiments, problem-based projects, and a capstone project at the program level.

The program offers a comprehensive technical foundation for individuals seeking an education involving the entry level skills required of a successful technician in the broad field of engineering technology.

The Robotics Technology Associate of Applied Science (AAS) degree program prepares students for careers as an electronic engineering technician or manufacturing technician in all sectors of the engineering technology industry in which electronic and robotic devices and systems are employed. In addition, the program provides the opportunities for the graduates to continue their study to a 4-year baccalaureate university in engineering or engineering technology.

The addition of Robotics Technology to the existing Electronics Technology program will better meet the needs of students in engineering technology, which is in alignment with the strategic plans of UM 2020: Building a University for the Global Century. With the Robotics Technology program, we expect to promote the enrollment, enhance student learning, and improve retention, success and graduation rates in the Electronics Technology program.

III. PRELIMINARY APPROVAL

Requestor: Steve Shen

Signature: [Signature]

Date: 9/29/15
Phone / Email: 406-243-7914 / steve.shen@umontana.edu

Program Chair: [Signature] Date 9/29/15

Other affected Programs:

[Signature] Date
[Signature] Date
[Signature] Date

Dean: [Signature] Date 9/29/15

Dean of the Library: [Signature] Date 9/29/15

Resources included in the proposal are sufficient to adequately support the new program's library needs.

Initial Review in Provost's Office: [Signature] Date 10/5/15

After the Faculty Senate approves the proposal on a consent agenda; the Provost's Office forwards the item for Board of Regents approval at the next possible meeting.

IV. TYPE OF PROGRAM CHANGE

☐ Establish a new degree; add new major to existing degree
☒ Adding a minor or certificate where there is no major or option in a major
☐ Retitling a degree (e.g. from B.A. to B.F.A.)
☐ Forming, eliminating or consolidating a college, division, school, department, institute, bureau, center, station, laboratory, or similar unit.*

V. PROPOSAL

See Level II Instructions

Attach the following completed forms:
Board of Regents Item Template Form
Board of Regents Curriculum Proposal Form (For a new Center, Institute, Bureau, Station, Laboratory or similar unit, submit Center Proposal Form instead.)Board of Regents Academic Request Form

*Eliminating or consolidating does not require Curriculum Proposal or Center Proposal Form.

V SUBMISSION

Submit the complete Level II proposal to the Provost’s Office for preliminary approval. After all signatures have been obtained, submit original, and an electronic file to the Faculty Senate Office, UH 221, camie.foos@mso.umt.edu