

M O N T A N A B O A R D O F R E G E N T S**NEW ACADEMIC PROGRAM PROPOSAL SUMMARY**

Campus: Montana Tech of the University of Montana

Program Title: B.S. and M.S. in General Engineering Electrical Engineering Option

1. How does this program advance the campus' academic mission and fit priorities?

Montana Tech of The University of Montana is a specialty institution emphasizing science and engineering, with occupational programs through graduate work. The vision is to be a leader for undergraduate and graduate education and research in the Pacific Northwest in engineering, science, energy, health, information sciences and technology. Its mission is to meet the changing needs of society by supplying knowledge and education through a strong undergraduate curriculum augmented by research, graduate education and service.

2. How does this program fit the Board of Regents' goals and objectives?

The fundamental goal of: *Assist in the expansion and improvement of the state's economy through the development of high value jobs and the diversification of the economic base*, is the basis for this program. Energy generation and its delivery to the end user are critical in any economy. Many government and private sector studies have found that to alleviate the growing problem in failing systems, the electric energy industry must apply advanced technology solutions over the next several decades. Because modern electric power systems represent the largest and most complex engineering systems in the world, the projected demand for electrical engineers is significant.

3. How does this program support or advance Montana's needs and interests?

Of the 18 students who reported internships through the career services the last three years, 8 students in the General Engineering – Electrical Engineering Options worked in Montana. Over the last three years, 8 students have been placed in internships with Montana companies, including Northwestern Energy, Maxim Technologies, Stillwater Mining, MSE-TA, Semitool, and MT DOT. There were 28 graduates of the option from 2002, 2003, 2004, 4 were placed in permanent positions in MT. Those companies are Rightnow Technologies, MSE Power Engineer, and ASiMI.

4. How will this program contribute to economic development in Montana? (Note projected annual economic impact both regionally and statewide.)

While there are not clear examples of how this program will contribute to the economic development of Montana, the students will be clearly equipped to work in a variety of areas such as the Missoula Heart Institute.

5. **What is the program's planned capacity?** **80 full enrollment target**
Break-even point? 45 FTE students
Enrollments/year? 15/yr
Graduates/year? 8 or 9
MT jobs/year? 1-4

6. **Resource Allocation**

Total program budget? \$350,000

Faculty FTE? 3.5 S

Staff FTE? 0.25

Does this program require new resources? No

How will the campus fund the program?

The current option in electrical engineering is funded through the General Engineering program.

If internal reallocation is necessary, name the sources

The current options are housed within the administrative structure of the General Engineering Program. Funds currently allocated to the General Engineering Electrical Engineering Option operations will be allocated to the Electrical Engineering program.