MONTANA UNIVERSITY SYSTEM

2011 BIENNIUM BUDGET PLANNING – NEW PROPOSALS (JANUARY 2008)

UNIT/CAMPUS: MONTANT TECH OF THE UNIVERSITY OF MONTANA	**UNIT PRIORITY: 1**
NEW PROPOSAL NAME: MONTANA ACADEMY OF MATH AND SCIENCE	
BOARD OF REGENT STRATEGIC GOAL: _X_ACCESS ___ ECON DEV ___ EFFICIENCY __ RECRUIT/RETAIN	

TOTAL BIENNIAL COST: $500,000	FUNDING SOURCES: State Appropriation
FY 10 TOTAL COST: $250,000	FY 11 TOTAL COST: $250,000
FY 10 BASE FUNDING REQUESTED: $250,000	FY 11 BASE FUNDING REQUESTED: $0
FY 10 OTO FUNDING REQUESTED: $0	FY 11 OTO FUNDING REQUESTED: $0
ADDITIONAL STAFF IN FY10 (FTE): 0	ADDITIONAL STAFF IN FY11 (FTE): 0

DESCRIPTION OF NEW PROPOSAL:

This is a proposal to establish a residential Math and Science Academy at Montana Tech of The University of Montana. The concept has been demonstrated to work at the University of North Texas. The idea is to bring high-achieving students to Montana Tech where they complete the last two years of high school and the first two years of college concurrently. We estimate that each year about twenty high school students in Montana are capable of completing a math and science curriculum that is equivalent to the first two years of a rigorous, college-level math and science curriculum.

This initiative is important to Goals I and II of the MUS Strategic Plan and fits perfectly into Montana Tech's strategic plan. The Montana Math and Science Academy would permit students to complete a BS degree two years earlier than normal. This should also result in keeping the highest-achieving students in Montana longer.

When fully operational with 40 students the cost of the Academy is estimated to be approximately $750,000 annually. This consists of about $250,000 for bond payments on a residence hall and about $500,000 in operational costs including instructional costs. The proposed revenue is about $250,000 room and board ($6,000 per student), about $250,000 from tuition, and $250,000 from appropriation as a base incremental increase to the Montana Tech budget. Montana Tech has a commitment for private funding conditional on approval of this project for tuition for 40 students for four years, with the possibility of longer funding.

HOW SUCCESS IS MEASURED:

Student success will be defined as completing two years of math and science study on Montana Tech's campus. Additional success will come from eventual completion of a bachelor's degree in the STEM field. Ultimate success is achieved by enrollment and completion of a STEM graduate

program.

Undergraduate and graduate research results will also serve as indicators of success for the Academy.

If Montana Tech enrolls a minimum of 10 students in August of 2010 and graduates a minimum of 6 students in May 2012 the program will have been minimally successfully. If Montana Tech enrolls 20 students August 2010 followed by an additional 20 students in August 2011 and 18 students graduate in May 2012, the program will have been highly successful.

MONTANA UNIVERSITY SYSTEM

2011 BIENNIUM BUDGET PLANNING – NEW PROPOSALS (JANUARY 2008)

UNIT/CAMPUS: MONTANA TECH OF THE UNIVERSITY OF MONTANA	UNIT PRIORITY: 2
NEW PROPOSAL NAME: STUDENT RETENTION AND SUCCESS	
BOARD OF REGENT STRATEGIC GOAL: _X_ACCESS ___ ECON DEV _X_ EFFICIENCY _X_ RECRUIT/RETAIN	

TOTAL BIENNIAL COST: $166,000	FUNDING SOURCES: State Appropriation
FY 10 TOTAL COST: $83,000	FY 11 TOTAL COST: $83,000
FY 10 BASE FUNDING REQUESTED: $83,000	FY 11 BASE FUNDING REQUESTED: $0
FY 10 OTO FUNDING REQUESTED: $0	FY 11 OTO FUNDING REQUESTED: $0
ADDITIONAL STAFF IN FY10 (FTE): 1	ADDITIONAL STAFF IN FY11 (FTE): 0

DESCRIPTION OF NEW PROPOSAL:

MUS: Goal 1 Prepare Students for Success in life through quality
        higher education Section 2 Increase retention rates within
        the Montana University System Goal 3 Improve efficiency
        and effectiveness
          Section 2 Deliver efficient and coordinated services

Montana Tech Strategic Plan
        Goal 6 Increase Enrollment to 2,688 (FTE) by 2112
        Section 1.2 Improve transition rates between recruited, applied and
        enrolled students. Section 2.1 Develop a first year experience
        program

Goal 6.1.2 of the Montana Tech calls for a First Year Experience coordinator. This position would guide the institution in an effort to improve student success through retention activities focusing on the student's first 2 semesters at Montana Tech.

Currently Montana Tech is reviewing the student access to all student services offices. This position would align itself based on the outcomes and recommendations of the task force. The offices of the Dean of Students, Admissions, Registrar, and the VCAA each offer some of the services that will be coordinated through this position.

In the last 10 years the first-year retention rate at Montana Tech has varied from 57.67% to 70.77%. Funding this position will help to stabilize and grow the first year retention rates. In doing so, the campus will gain the efficiencies of stabilizing FTE, thus capitalizing on the investments already made toward student success in the areas of Admissions, Student Life, and Academics. Without this

strategy, Montana Tech can expect to continue to experience the inefficiencies in services provided and unpredictability in FTE generation that come with a significantly fluctuating first-year retention.

The First Year Experience Coordinator will work closely with the offices of Admissions, Registrar, and the Dean of Students to assist students at their point of readiness in meeting their academic goals. This person will work closely with the office of institutional research to identify the variables in predicting and influencing student success in the first year.

- Expand the testing and advising centers on the 4-year and 2-year Montana Tech campuses.
- Coordinate the examination of all incoming students' math and writing abilities and track success.
- Enhance the advising and mentoring of students through critical courses.
- Guide institutional programs to better meet the needs of incoming students.

The COT advising center and the North Campus Learning Center will be the focal points of the program.

This program will lead to increased student success, retention, and completion of educational goals. Further, this program will track, assist and manage student success at both the North Campus and the COT with a focus on those students who enter the university system needing remedial or pre-baccalaureate math and English education.

HOW SUCCESS IS MEASURED:

The success of this program will be measured through the stabilization and growth of first year retention which has fluctuated from 57.67% to 70.77% over the last ten years. Given the specialized nature of Montana Tech's academic offerings, a retention rate which is consistently above 80% is thought to be sustainable through this effort. Student success rates will improve, based on the MAPP junior-year achievement test compared to entrance examinations. College completion will increase.

MONTANA UNIVERSITY SYSTEM

2011 BIENNIUM BUDGET PLANNING – NEW PROPOSALS (JANUARY 2008)

UNIT/CAMPUS: MONTANA TECH OF THE UNIVERSITY OF MONTANA	UNIT PRIORITY: 3
NEW PROPOSAL NAME: IMPLEMENTATION OF APPROVED HONORS PROGRAM	
BOARD OF REGENT STRATEGIC GOAL: ___ACCESS ___ ECON DEV ___ EFFICIENCY _X_ RECRUIT/RETAIN	

TOTAL BIENNIAL COST: $190,576	FUNDING SOURCES: State Appropriation
FY 10 TOTAL COST: $95,288	FY 11 TOTAL COST: $95,288
FY 10 BASE FUNDING REQUESTED: $95,288	FY 11 BASE FUNDING REQUESTED: $0
FY 10 OTO FUNDING REQUESTED: $0	FY 11 OTO FUNDING REQUESTED: $0
ADDITIONAL STAFF IN FY10 (FTE): 0.75	ADDITIONAL STAFF IN FY11 (FTE): 0

DESCRIPTION OF NEW PROPOSAL:

The purpose of this proposal is to assist with the implementation of the newly approved Honors Program at Montana Tech. Honors Programs have been found to be effective for recruiting and retention of top tier students. Supporting evidence for this idea is found in several publications by the National Collegiate Honors Council (NCHC), was repeated numerous times at the 2007 NCHC conference, and is supported by the Dean of the Davidson Honors College at the University of Montana, Missoula and the Director of the Honors Program at Montana State University, Bozeman. The students that are the high achievers are looking for schools that provide them the intellectual challenge and education that they desire. These are also the students that generally go on to graduate or professional schools, and the education obtained in an Honors Program makes them more competitive for admission and more successful in their post-graduate work.

In addition, the development of Honors courses that are made available to students outside the Honors Program enhances the academic programs offering those courses, both for the students and the faculty. Honors courses provide greater breadth and/or depth in the subject area and may use alternative teaching/learning techniques. These courses often provide the "hook" to bring students into and remain in a particular degree program, even if they are not part of the larger Honors Program. Frequently, these courses are a combination Honors/Major course and are appealing to both students and faculty. The grouping of students by academic interest has been shown to enhance the students' social and learning experiences leading to improved academic performance and retention. The current administrative and development structure for the Honors Program is based on full-time faculty members that are volunteering their "free time" for this program. Consequently, the development is moving slowly..

This proposal is to fund a three quarter-time (0.75 fte) Director for the Honors Program and faculty salary supplements.

The Director will be responsible for recruiting and advising of students in the Honors Program, for administration of the mandatory Honors Seminars, and leading the Honors Advisory Committee in the development and management of the program.

Faculty Salary Supplements are for those teaching an overload, buy-outs from the regular teaching schedule, and/or the additional work for adding honors components to regular courses. The faculty salary supplements would be for six, three-credit courses each semester. The time made available by this additional money will accelerate the development of the Honors Program, make the program more effective for those already enrolled, and make it more enticing to prospective students.

HOW SUCCESS IS MEASURED:
Success will be measured by the number of new and or improved Honors courses, the number of students recruited to Montana Tech because of the Honors Program, and the retention of students within the Honors Program and those that stay at Montana Tech because of the Honors courses that are offered.

MONTANA UNIVERSITY SYSTEM

2011 BIENNIUM BUDGET PLANNING – NEW PROPOSALS (JANUARY 2008)

UNIT/CAMPUS: MONTANA TECH OF THE UNIVERSITY OF MONTANA	UNIT PRIORITY: 4
NEW PROPOSAL NAME: MARKETING	
BOARD OF REGENT STRATEGIC GOAL: ___ACCESS ___ ECON DEV _X__ EFFICIENCY ___ RECRUIT/RETAIN	

TOTAL BIENNIAL COST: $130,000	FUNDING SOURCES: State Appropriation
FY 10 TOTAL COST: $65,000	FY 11 TOTAL COST: $65,000
FY 10 BASE FUNDING REQUESTED: $65,000	FY 11 BASE FUNDING REQUESTED: $0
FY 10 OTO FUNDING REQUESTED: $0	FY 11 OTO FUNDING REQUESTED: $0
ADDITIONAL STAFF IN FY10 (FTE): 0	ADDITIONAL STAFF IN FY11 (FTE): 0

DESCRIPTION OF NEW PROPOSAL:

As the primary campus in Montana with a stated mission to educate students in Science, Technology, Engineering and Math (STEM) Programs, Montana Tech must market its programs more aggressively than we have been able to over the past 10 years. Graduates of STEM Programs represent only 5% of the population of the US and are responsible for driving 50% of the Gross Base Product (GBP) of the Nation. Only 32% of the Bachelors Degrees awarded in the US are in STEM Programs. This percent is much lower than either Japan or China. The European Union has demonstrated its concern for education in STEM Programs by announcing the establishment of the European Institute of Technology to be modeled after MIT.

Located in the Pacific Northwest, Montana Tech has an array of programs that are unique and essential in the search for both short-term and long-term solutions to our energy needs. The capacity to educate more students in STEM Programs exists. Our goal is to get students interested these programs and attending Montana Tech. Therefore, we plan to utilize the knowledge and materials provided by a recent marketing and branding study to more aggressively market our unique programs in Montana, the Pacific Northwest, nationally and internationally.

HOW SUCCESS IS MEASURED:

Success will be measured by increased enrollments in STEM Programs.

MONTANA UNIVERSITY SYSTEM

2011 BIENNIUM BUDGET PLANNING – NEW PROPOSALS (JANUARY 2008)

UNIT/CAMPUS: MONTANA TECH OF THE UNIVERSITY OF MONTANA	UNIT PRIORITY: 5
NEW PROPOSAL NAME: STRATEGIC ENROLLMENT MANAGEMENT	
BOARD OF REGENT STRATEGIC GOAL: ___ACCESS ___ ECON DEV ___ EFFICIENCY _X_ RECRUIT/RETAIN	

TOTAL BIENNIAL COST: $250,000	FUNDING SOURCES: State Appropriation
FY 10 TOTAL COST: $125,000	FY 11 TOTAL COST: $125,000
FY 10 BASE FUNDING REQUESTED: $125,000	FY 11 BASE FUNDING REQUESTED: $0
FY 10 OTO FUNDING REQUESTED: $0	FY 11 OTO FUNDING REQUESTED: $0
ADDITIONAL STAFF IN FY10 (FTE): 1.00	ADDITIONAL STAFF IN FY11 (FTE): 0

DESCRIPTION OF NEW PROPOSAL:

GOAL / STRATEGY

Montana Tech is currently developing a plan for an integrated Strategic Enrollment Management program. When implemented it will coordinate the functions of recruitment, admissions, enrollment, retention, financial aid and student records. This program will support Goals 5 and 6 of Montana Tech's Strategic Plan and Goals I and III of the MUS Strategic Plan.

IMPLEMENTATION RESPONSIBILITY

Chancellor of Montana Tech

IMPACT

To increase the college going rate and to improve the workforce for the knowledge economy requires effective enrollment management. Progressive academic institutions will find ways to manage enrollment from well prior to admission through commencement and beyond. The impact is creating a better educated citizenry.

ACTION PLAN

- During the spring of 2008 the Strategic Enrollment Management plan will be completed and the position of coordinator of Strategic Enrollment Management (the title and functions for this position have not been completed) will be hired.
- Fall 2008 – The schedule for implementation of the plan will be completed.
- FY 2010 – the implementation of the plan will be completed.

HOW SUCCESS IS MEASURED:

Each year a series of indicators of success will be measured and evaluated. Some of these indicators are enrollment numbers, rate of retention, and graduation rates.

MONTANA UNIVERSITY SYSTEM

2011 BIENNIUM BUDGET PLANNING – NEW PROPOSALS (JANUARY 2008)

UNIT/CAMPUS: MONTANA TECH OF THE UNIVERSITY OF MONTANA	UNIT PRIORITY: 6
NEW PROPOSAL NAME: FACULTY POSITIONS	
BOARD OF REGENT STRATEGIC GOAL: _X_ACCESS ___ ECON DEV ___ EFFICIENCY _X_ RECRUIT/RETAIN	

TOTAL BIENNIAL COST: $278,000	FUNDING SOURCES: State Appropriation
FY 10 TOTAL COST: $137,000	FY 11 TOTAL COST: $141,000
FY 10 BASE FUNDING REQUESTED: $137,000	FY 11 BASE FUNDING REQUESTED: $4,000
FY 10 OTO FUNDING REQUESTED: $0	FY 11 OTO FUNDING REQUESTED: $0
ADDITIONAL STAFF IN FY10 (FTE): 2.00	ADDITIONAL STAFF IN FY11 (FTE): 0

DESCRIPTION OF NEW PROPOSAL:

GOAL / STRATEGY

During the 2011 Biennium, Montana Tech needs to increase its faculty by at least two FTE. We have several departments that are expanding. For example to continue the expansion to an enrollment of 350 by 2012, Petroleum Engineering will need to add at least one faculty member. General Engineering is also expanding and may need to add at least one faculty member. Both Biology and Electrical Engineering have expanded by funding faculty partially from grants. Some of these positions will need to go to State funding over the next several years. The College of Technology may need to add a faculty member in mathematics. Some of this may be achieved by reallocation of positions but not all of it can be accomplished through reallocation. This initiative supports Goals 1 and 5 of the Montana Tech Strategic Plan and Goals I and III of the MUS Strategic Plan.

IMPLEMENTATION RESPONSIBILITY

Vice Chancellor for Academic Affairs and Research – Academic Division.

IMPACT

Even during this period of high school enrollment decreases some of our programs are expanding. This is due to the strong job market in fields such as petroleum engineering, mining engineering and engineering in general. Some of our 2-year health programs are expanding and our 2-year engineering technology program has seen growth. To keep these programs healthy requires additional faculty.

ACTION PLAN

FY 2009 – The Academic Division will study the growth that is occurring and will evaluate the changes in student to faculty ratios of all programs.

FY 2010 – Based on the outcome of the above study the two positions will be allocated to the programs with the greatest need to reduce the student to faculty ratio.

HOW SUCCESS IS MEASURED:
Reduction in the student to faculty ratios is the appropriate measure of accountability.

MONTANA UNIVERSITY SYSTEM

2011 BIENNIUM BUDGET PLANNING – NEW PROPOSALS (JANUARY 2008)

UNIT/CAMPUS: MONTANA TECH OF THE UNIVERSITY OF MONTANA	UNIT PRIORITY: 7
NEW PROPOSAL NAME: CHAIR, NATIONAL STUDENTS AWARDS COMMITTEE	
BOARD OF REGENT STRATEGIC GOAL: _X_ACCESS ___ ECON DEV ___ EFFICIENCY _X_ RECRUIT/RETAIN	

TOTAL BIENNIAL COST: $35,833	FUNDING SOURCES: State Appropriation
FY 10 TOTAL COST: $17,717	FY 11 TOTAL COST: $18,116
FY 10 BASE FUNDING REQUESTED: $17,717	FY 11 BASE FUNDING REQUESTED: $399
FY 10 OTO FUNDING REQUESTED: $0	FY 11 OTO FUNDING REQUESTED: $0
ADDITIONAL STAFF IN FY10 (FTE): 0	ADDITIONAL STAFF IN FY11 (FTE): 0

DESCRIPTION OF NEW PROPOSAL:

In 2005 the Montana Tech Chancellor appointed a National Student Awards Committee of faculty and staff to advise and mentor students seeking national scholarships and awards. This committee has been very active for two years and has succeeded in getting a substantial increase in the number of students applying for these prestigious awards or scholarships. The chair of this committee spends substantial time coordinating all the applications including all the reference letters.

This proposal is to provide one-quarter release time for the. chair of the committee and to provide a small operations budget for the committee.

This activity is directed at achieving Goal 1 of the Montana Tech Strategic Plan and Goal I of the MUS Strategic Plan.

Implementation of this activity will provide undergraduate students a better opportunity to gain national recognition for their academic achievements.

The chair of the committee will be given 1/4 release time and will be charged with increasing the number of applications for national scholarships and awards.

HOW SUCCESS IS MEASURED:

Each year the number of applications and awards will be reviewed. An increase of 10% each year will be considered to be a satisfactory outcome.