



University of  
Science & Technology

# Tactical Plan

Fiscal Year 2008

Status Update

June 1, 2008

## **Introduction**

The Missouri University of Science and Technology Strategic Plan defines the University's mission and vision of achievement while embracing its land- and space-grant heritage and responsibility. The objectives and goals of the Strategic Plan identify specific areas of interest or improvement that are in concert with the mission and vision. The specific actions to be taken to achieve the goals and objectives that will allow Missouri S&T to realize its vision and execute its mission are identified in the Tactical Plan. While all goals and objectives are important, it is recognized that not all goals and objectives can be pursued and achieved simultaneously. Some goals and objectives must be completed before others can begin while some must be phased in because of resource limitations, timing, or duration of effort required. Thus, developing this annual Tactical Plan of accomplishment defines how specifically we will move toward each of the four strategic objectives in the Strategic Plan. Specific officers, individuals, or leaders are designated as being responsible for ensuring that a team of university members, faculty, staff, administrators, students, alumni, and friends are properly organized and led to accomplish a specific action taken in support of a goal or objective.

As each goal has a progress or continuous improvement measurement associated with it, each activity also has a corresponding metric. At the end of each 12-month period of the Tactical Plan, the various activities are measured and success is evaluated. Those activities, goals, and objectives that are achieved are acknowledged and celebrated. Those activities, goals, and objectives that weren't completely or satisfactorily completed or achieved are modified or extended to ensure that they can be achieved and they will continue to be pursued in the next annual Tactical Plan. As resources become available, additional objectives, goals, and their associated activities are added to the next year's tactical plan. Each year's Tactical Plan will be constructed so the Strategic Plan's objectives and goals are reviewed and updated to ensure progress toward the University's vision.

The Chancellor will report annually to the campus community on the success of the Tactical Plan and the progress made on the strategic objectives.

## **Missouri University of Science and Technology Mission**

The mission of the Missouri University of Science and Technology is to integrate exceptional education and research to solve problems for our State and the technological world.

## **Missouri University of Science and Technology Vision**

The vision of the Missouri University of Science and Technology is to be a top-five technological research university by 2011.

## FY2008 Tactical Plan

### ***Strategic Objective 1: Enrich the Student Experience***

Missouri S&T will promote student achievement, teamwork, diversity, leadership, health, and recreation. Missouri S&T will foster a campus culture that embraces its vision by emphasizing cutting edge academic preparation, hands-on experiences (experiential learning), relevant career connections, supportive and engaging communities, and leadership development opportunities.

Goal: 1.1                      Develop an institutional culture of continuous improvement and regularly assess student outcomes. *[OPR: Provost]*

Action 1.1.1: Create a university-wide student learning assessment and continuous improvement committee. *[OPR: VPUS and VPGS]*

**Completed:** Information sessions have been conducted for department chairs and the campus community. An Assessment Committee has been formed and will begin working this summer.

Action 1.1.2: Develop and implement student learning assessment measurements. *[OPR: VPUS, VPGS, and Department Chairs]*

**In Progress:** Campus has begun analyzing assessment data. The assessment committee will begin developing and implementing campus-wide assessment procedures.

Action 1.1.3: Evaluate, analyze, and implement necessary continuous improvement actions and report results. *[OPR: VPUS, VPGS, and Department Chairs]*

**In Progress:** The campus self study committee has collected and evaluated evidence submitted by the campus. The committee will draft a report for Criterion 3 and make it available to the campus for review.

Goal: 1.2                      Expand and increase the quality of the resources, facilities and personnel focused on teaching, learning and the student experience by 2011. *[OPR: Provost and Vice Chancellors]*

Action 1.2.1: Equip 100% of all centrally scheduled classrooms with baseline instructional technology by FY2007-08. *[OPR: CIO]*

**Completed:** All centrally scheduled classrooms have baseline instructional technology installed.

Action 1.2.2: Develop a plan to equip all remaining classrooms with baseline instructional technology. *[OPR: CIO]*

**Completed:** A plan has been developed to equip all remaining classrooms with baseline instructional technology.

Action 1.2.3: Develop a plan to create a facility for faculty training on the use of instructional technology and the development of instructional material and presentation methods. *[OPR: CIO, DEL, VPUS]*

**Completed:** The Center for Educational Research and Teaching Innovation and the Teaching and Learning Technologies group have established a multi-phased development of 208 Norwood Hall to be used as a regular classroom/faculty training room.

Action 1.2.4: Develop an annualized plan for improving the campus athletic and recreational facilities and initiate improvements. *[OPR: VCSA]*

**Completed:** A detailed plan has been developed. The first phase will be completed by Summer 2009.

Goal: 1.3

Engage at least 90% of the undergraduate student body in one or more learning experiences beyond those in the traditional classroom setting during their academic career by 2011. *[OPR: Provost]*

Action 1.3.1: Define, inventory, and assess learning experiences beyond those associated with specific classes. *[OPR: VPUS, DEL, and VCSA]*

**In Progress:** Student leadership and learning experiences beyond the classroom have been identified. A new department of Leadership and Cultural Affairs has been established in Student Affairs to coordinate and integrate campus leadership development opportunities for students.

Action 1.3.2: Benchmark current level of participation. *[OPR: VPUS, DEL, and VCSA]*

**In Progress:** A few learning experiences have begun benchmarking their experiences. Better coordination is needed because of all of the campus units involved in this important activity. *[OPR: VPUS, DEL, and VCSA]*

Action 1.3.4: Devise a plan to be implemented in AY2008 to increase participation by 10%. [OPR: VPUS, VCSA, and Department Chairs]

**In Progress:** Each of the major units involved in learning outside the classroom has plans for increasing their participation. The campus hopes to integrate all of these plans into one major initiative by AY 2009.

Action 1.3.5: Reactivate the co-curricular student activity transcript by March 2008. The new transcript will allow student organizations to download their member and participant rosters to more accurately record and document the quantity and types of student out-of-class engagement. [OPR: VCSA]

**Completed:** Access to the co-curricular transcripts was unavailable to students due to PeopleSoft issues. The system has been reactivated, however, students are not utilizing it to its full potential. The campus plans to work with the Corporate Development Council to ensure maximum efficiency for students and their potential employers.

## ***Strategic Objective 2: Broaden the Academic Portfolio and Increase Enrollment***

**Increase and Broaden Enrollment:** Missouri S&T will increase its enrollment by improving access, expanding diversity, increasing retention, expanding extended learning activities, controlling tuition, and providing more endowed scholarships. Missouri S&T will balance the academic portfolio and the student experience by increasing market share in areas such as life sciences and biotechnology, energy, business and management, communication, the liberal arts, and education in science, technology, engineering and mathematics.

Goal: 2.1                      Grow overall enrollment to 6,550 by 2011 with diversity that reflects the State of Missouri and the global environment in which we compete. Increase the overall graduate enrollment to 1,750. [OPR: Provost]

Action 2.1.1: Devise and implement a plan to improve 2<sup>nd</sup>-to-3<sup>rd</sup> year retention by 2% over Fall 2007 in Fall 2008. [OPR: VPUS and Department Chairs]

**Completed:** The Office of Undergraduate Studies has implemented a "Second Year Experience" Program. A new staff member has been hired to ensure the success of this program.

Action 2.1.2: Devise and implement a plan to recruit and increase graduate enrollment by 47 students by Fall 2007 (to 1,390) and an additional 85 students by Fall 2008 (to 1,475). [OPR: VPGS and DEL]

**Completed:** Exceeded goal--Fall 2007 graduate enrollment was 1,414. A campus-wide taskforce committee reviewed the current state of admission and recruitment practices and proposed a set of recommendations to streamline these processes. Work is in progress to implement these recommendations by defining a set of continuous improvement projects and assembling appropriate teams.

Action 2.1.3: Increase total female enrollment to 24% (1,450 students) in Fall 2007 and 26% (1,600 students) in Fall 2008. [OPR: VPGS, VPUS and DEM]

**In Progress:** While the number of female students continues to increase on campus, the overall percent is below the goal. With the continued decline in female interest in the STEM disciplines, this action needs to be reviewed.

Action 2.1.4: Increase total minority enrollment to 11% (661 students) in Fall 2007 and 12% (726 students) in Fall 2008. [OPR: VPGS, VPUS and DEM]

**In Progress:** While the number of minority students continues to increase on campus, the overall percent is below the goal. With the continued decline in minority interest in the STEM disciplines, this action needs to be reviewed.

Action 2.1.5: Increase undergraduate enrollment by 95 students (to 4,610) by Fall 2007 and an additional 65 students (to 4,675) in Fall 2008 through a combination of additional new students (first time anywhere freshmen and transfers) and increasing 1<sup>st</sup>-to-2<sup>nd</sup> year retention to 89%. [DEM, DEL, and VPUS]

**Completed/In Progress:** The enrollment goals have been met, but the retention part of the action was not met.

Goal: 2.2

Improve campus diversity by increasing tenure/tenure-track female faculty members to 54 or more and traditionally underrepresented tenure/tenure-track minority faculty members to 19 or more by 2011. *[OPR: Provost and Department Chairs]*

Action 2.2.1: Increase total female faculty members by 3 and traditionally underrepresented faculty members by 1 by Fall 2008. *[OPR: Provost and Department Chairs]*

**Completed:** Twenty-six faculty positions are expected to be filled by Fall 2008. With half of the searches completed, 6 females and 1 minority faculty member have been hired.

Goal: 2.3

Become recognized as the employer of choice for faculty and staff by 2011 by creating a campus community that acknowledges, rewards, and celebrates excellence *[OPR: Chancellor]*

Action 2.3.1: Identify methods by which “campus of choice” can be measured. *[OPR: VPAA, Department Chairs, and Vice Chancellors]*

**Completed:** The campus has participated in the “Great Colleges to Work for 2008” survey conducted by the Chronicle of Higher Education. The campus will also use the annual Staff Council survey to measure satisfaction of the campus climate.

Action 2.3.2: Benchmark our current level of “choice” and methods of “celebration”. *[OPR: VPAA, Department Chairs, and Vice Chancellors]*

**In Progress:** Benchmark data has been identified. The campus will use the Chronicle of Higher Education and information available from Human Resources and Federal/State Department of Labor statistics on retention and turnover rates.

Action 2.3.3: Identify methods by which excellence is currently acknowledged, rewarded, and celebrated and recommend if current methods should be modified and/or if additional methods or venues are needed. *[OPR: VPAA, Department Chairs, and Vice Chancellors]*

**In Progress:** A revised award structure will be shared with the campus community in July.

Action 2.3.4: Identify ways to increase faculty and staff salaries to be competitive. *[OPR: Chancellor and Provost]*

**Completed:** All FY2008 new state appropriations allocated to salary increases, other university resources identified and reallocated to salary increases, as well as a special \$150,000 allocation from UM System. A supplementation 3% additional raise pool was identified for tenured/tenure track faculty members.

Goal: 2.4

Anticipate, add, and expand degree and certificate programs that increase market share in areas consistent with a top technological research university of the 21<sup>st</sup> century. *[OPR: VPAA and Department Chairs]*

Action 2.4.1: Develop, submit, and obtain approval to initiate new baccalaureate and graduate degree programs. *[OPR: VPAA and selected Department Chairs]*

**In Progress:** Feedback was provided to Interdisciplinary Engineering regarding their proposed MS and Ph.D. degrees, and History regarding its proposed MA degree.

Action 2.4.2: Obtain approval of a new degree program in elementary education with an endorsement area in science and mathematics. *[OPR: VPUS, VPAA and selected Department Chairs]*

**In Progress:** The proposed new degree program has been developed and is under review at the campus level.

Action 2.4.3: Obtain approval of new degree programs in biomedical engineering (B.S., M.S., Ph.D.) in collaboration with UMKC Schools of Medicine and Dentistry. *[OPR: VPUS, VPGS, VPAA, and selected Department Chairs]*

**In Progress:** Campus developed a proposal and is waiting for a response from UMKC.

Action 2.4.4: Complete the plan and implement the initial steps of the Missouri S&T-MSU cooperative agreement to offer the CE and EE degrees in the Springfield area. *[OPR: Provost, Chair of CE, and Chair of EE]*

**Completed:** First-year curriculum has been developed. Governor Blunt was on campus March 13, 2008 to sign HB 2020 providing one-time funding for the program. The posting for the Director's position has been developed and approved by Human Resources. The anticipated start date is August 1.

Action 2.4.5: Create a standing committee to review emerging trends in industry and recommend new courses, emphasis areas, and degree and certificate programs to address these trends. *[OPR: VPAA, DEL, and Department Chairs]*

**Not Completed:** No progress to report.

Action 2.4.6: Create a task force to “imagine” future technological developments and practices and recommend appropriate new degree and certificate programs. This task force will submit annually a written report to the Chancellor and Provost and present to the campus via a public forum. *[OPR: VPAA and selected Department Chairs]*

**Not Completed:** No progress to report.

Goal: 2.5

Maintain affordability at 2007 levels by increasing student financial assistance, scholarship programs and other student cost reduction efforts by 2011. *[OPR: DEM]*

Action 2.5.1: Raise \$4.5M in gifts and pledges for scholarship/fellowship support. *[OPR: VCUA]*

**Completed:** As of April 20, 3008 \$4.8M has been secured.

### ***Strategic Objective 3: Expand and Elevate Research Performance and Reputation***

**Expand and Elevate Research Performance and Reputation:** Missouri S&T will enhance its research activity and performance to establish its status as a top five technological research university, distinguishing itself by interdisciplinary collaborations of national significance.

Goal: 3.1

Expand and increase the resources, facilities, and personnel focused on the research mission of the University by FY 2011. *[OPR: Provost and VPR]*

Action 3.1.1: Increase number of faculty members active in sponsored activity from 260 to 275. *[OPR: VPR and Department Chairs]*

**In Progress:** Will not know exact number of faculty members active in sponsored research until August 2008.

Action 3.1.2: Increase average research expenditure per tenure/tenure track faculty from \$140K to \$145K. *[OPR: VPR, and Department Chairs]*

**In Progress:** As of May 1, 2008, research expenditures are up 25.4% over this time last year. The exact dollar amount will not be known until August 2008.

Action 3.1.3: Establish three of the seven targeted endowed faculty positions in defined strategic areas: energy (two positions), entrepreneurship and management, advanced manufacturing, homeland security and critical infrastructure protection, trustworthy systems, and biomedical engineering. *[OPR: VCUA and Provost]*

**In Progress:** In 2007-2008 one endowed faculty position has been secured, with 19 outstanding proposals.

Action 3.1.4: Secure \$400K in seed funding for interdisciplinary research to establish two national interdisciplinary research centers and/or programs. *[OPR: Provost and VPR]*

**Completed:** Energy Research and Development Center will receive \$600,000 for FY2008-FY2010 and the Center for Bone and Tissue Repair and Regeneration will receive \$702,500 between CY2008-CY2010.

Action 3.1.5: Increase library budget for journal subscriptions, databases and monographs from \$1.0 million to \$1.2 million. *[OPR: Provost and Library Director]*

**In Progress:** The budget has been increased by \$25,000.

Action 3.1.6: Identify underutilized physical space currently designated for research activities. *[OPR: Space Committee and Department Chairs]*

**Not Completed:** No progress to report.

Action 3.1.7: Identify major research instrumentation needs and available resources. *[OPR: VPR, Center Directors, and Department Chairs]*

**In Progress:** A list of major research instrumentation has been identified. This information will be shared with the Center Directors and Department Chairs, along with proposed cost sharing for acquisition costs.

- Goal: 3.2 Expand and increase interdisciplinary research initiatives of national significance. *[OPR: VPR, Center Directors, and Department Chairs]*
- Action 3.2.1: Submit at least two proposals for establishing national interdisciplinary research centers and/or programs that could potentially have at least \$1.5M per year in research expenditure. *[OPR: VPR, Center Directors, and Department Chairs]*
- Completed:** Four proposals have been submitted to date.
- Action 3.2.2: Identify the theme and initiate work to submit a proposal to establish an NSF Engineering Research Center. *[OPR: VPR, Center Directors, and Department Chairs]*
- Completed:** Two themes have been identified and work initiated to submit proposals.
- Goal 3.3 Achieve \$55 million in externally sponsored program expenditures which includes research, instruction, and other sponsored activities by FY 2011. *[OPR: VPR]*
- Action 3.3.1 Achieve \$38M in research expenditures in FY2008. *[OPR: VPR and Department Chairs]*
- In Progress:** To date research expenditures is at \$31.43M, which is up over 25% from this time last year. The exact dollar amount will not be known until August 2008.
- Action 3.3.2: Devise and implement a plan to achieve \$42M in research expenditure during FY 2009. *[OPR: VPR, and Department Chairs]*
- In Progress:** A plan has been developed and is in the process of being implemented. The remaining component is developing a model and identifying seed funding to hire research faculty. It is anticipated that this will be completed by July 2008.
- Goal 3.4 Increase scholarly performance, productivity and national reputation. *[OPR: Provost, VPR, VCUA, and Department Chairs]*
- Action 3.4.1: Work with the Office of Communications to focus one of the forthcoming issues of the alumni magazine on our research activities. *[VPR]*
- Completed:** The theme of the Spring 2008 Missouri S&T Magazine was “re: Think Research”

Action 3.4.2: Devise and implement a plan to annually nominate faculty for fellow status in professional societies. [VPAA, VPGS, VPR, VPUS]

**In Progress:** Still gathering and analyzing data on the various guidelines and requirements of the major professional societies.

#### ***Strategic Objective 4: Identify Opportunities and Secure Resources from External Constituencies***

**Secure External Opportunities:** Missouri S&T will create opportunities and acquire resources from external constituencies by engaging stakeholders; including alumni, corporations, foundations, partners, and friends in the life of the institution, and by creating entrepreneurial opportunities.

Goal: 4.1                      Successfully complete a \$200 million capital campaign by 2010.  
[OPR: VCUA]

Action 4.1.1: Raise \$21M in gifts and pledges in FY 2008. [OPR: VCUA]

**In Progress:** As of April 30, 2008 \$17M in gifts and pledges has been secured.

Action 4.1.2: Apply \$2.2M of the gifts raised for student support to offset general operating budget scholarships and redirect the \$110,000 in annual distributions toward campus priorities. [OPR: Provost, VCAA]

**In Progress:** Final numbers will not be available until June 20, 2008.

Action 4.1.3: Increase annual alumni contribution/participation rate from 19% to 22%. [OPR: VCUA]

**In Progress:** As of April 30, 2008, the participation rate is 18%.

Goal 4.2                      Develop sustainable external partnerships that expand Missouri S&T's sphere of influence by 2011. [OPR: VPR, VCUA, VCSA, and DEL]

Action 4.2.1: Identify and devise a plan to involve the top 50 targeted corporate partners on appropriate advisory boards. [OPR: VCUA, VPAA, and VPR]

**Completed:** Identified "Top 50" corporate partners based on recruiting statistics, private contributions, and research dollars and secured involvement from 33 of these companies on key advisory boards.

Action 4.2.2: Identify and devise a plan to establish master research agreements or other appropriate partnership agreements with 40 of these targeted corporate partners. *[OPR: VPR and OTED]*

**In Progress:** Created a Corporate Relations Team which have identified the “Top 50” companies. In the process of identifying the top emerging companies.

Goal 4.3

Generate an annual income to the University of \$1.25 million from entrepreneurial and technology transfer activities by 2011. *[OPR: VPR and OTED]*

Action 4.3.1: Complete approval process and planning for business incubator at Missouri S&T Technology Park. *[OPR: OTED]*

**In Progress:** The Technology Development Center has been approved. In the process of receiving approval and funding for the Business and Technology Accelerator.

Action 4.3.2: Develop and implement a conflict of interest policy for Missouri S&T. *[OPR: Provost, Academic Council, VPR and OTED]*

**In Progress:** A campus committee has been formed. A policy is expected to be developed by the end of the AY 2007-2008.

Action 4.3.3: Identify funding for start-up and commercialization research to be used by faculty and student business start-ups. *[OPR: VPR, OTED and VCUA]*

**Completed:** Secured \$400,000 in startup funding for FY2008 to date, approximately \$7.1M still pending.

## Appendix A: List of Abbreviations

CIO	Chief Information Officer
DEL	Dean of Extended Learning
DEM	Dean of Enrollment Management
OTED	Office of Technology and Economic Development
OPR	Office/Officer of Principal Responsibility
VCSA	Vice Chancellor for Student Affairs
VCUA	Vice Chancellor for University Advancement
VPAA	Vice Provost for Academic Affairs
VPGS	Vice Provost for Graduate Studies
VPR	Vice Provost for Research
VPUS	Vice Provost for Undergraduate Studies