DRAFT STRATEGIC PLAN

DRAFT Strategic Plan for Undergraduate Studies -- 2014

MISSION: “The mission of the Division of Undergraduate Studies is to improve the learning environment and enhance the learning outcomes of students by working with Missouri S&T students, faculty, staff and the public.”

VISION: The Division of Undergraduate Studies will work collaboratively as part of the Missouri S&T team structure to cultivate curiosity, creativity and confidence in our graduates.

- We will work effectively to energetically promote and carry out well-organized best-practice efforts focused on recruiting, retaining and graduating the best students possible; these efforts will be based on the most current, reputable, data-based, higher education research.
- We will be alert to trends and forecasts in demographics, pedagogy and in global society that will potentially impact higher education so that Missouri S&T can be at the forefront of necessary changes required to sustain the university and to be most effective and efficient.

VALUES

- Lifelong Success
- Creativity
- Integrity
- Sustainability
- Partnerships
- Inclusion

The Division of Undergraduate Studies’ “Customers”

All of the customers identified in the Missouri S&T strategic plan as campus customers are potentially customers of the Division of Undergraduate Studies:

- Undergraduate Students
- Distance/Online Students
- Research-Based Graduate Students
- Research Investors
- Employers
- Donors
Clearly, the highest priority and immediately evident customers are the Undergraduate Students (both on-campus and Distance/Online Students). In addition, Employers and Donors will be an integral group of customers influenced by the work and success of the Division. Finally, with its focus on undergraduate research as one critical part of the out-of-classroom experience, the Division will have a great interest in and will contribute to successfully addressing the needs of Research-Based Students (both graduate and undergraduate) and Research Investors.

STRATEGY STATEMENT

The Division of Undergraduate Studies will be an integral player as part of the collaborative team that will lead Missouri S&T to provide by 2020 a top return on investment among public research universities to students, employers, research partners and donors through extraordinary access to renowned expertise, services and experiential learning opportunities.

- The Division of Undergraduate Studies will actively cultivate a strong leadership presence in the critical “three-legged stool” forming the basis of retention and undergraduate student success: Student Affairs, Enrollment Management, and Undergraduate Studies.
- Further, the Division of Undergraduate Studies will work to energetically serve the needs and best interests of the academic departments in assisting them in their efforts to provide the most effective learning environments using best-practices in pedagogy, student services, and professional development.

FOUR S&T THEMES

1. Develop and inspire creative thinkers and leaders for life-long success
2. Enhance reputation and raise visibility
3. Achieve sustainable growth to ensure best return on investment
4. Increase and facilitate meaningful access to and interaction with renowned faculty, staff and services.

DIVISION GOVERNANCE AND LEADERSHIP

The Vice Provost for Undergraduate Studies leads the division and oversees the general operations of the division which is made up of a number of individual units that are led by directors or managers. The organizational chart of the division is available at the following link:

http://ugs.mst.edu/media/administrative/ugs/documents/Org%20Chart.pdf
DIVISION OF UNDERGRADUATE STUDIES STRATEGIC GOALS (LEVERS) -- Please refer to the appendix for links to individual detailed strategic plans of specific units within the Division of Undergraduate Studies such as the Student Design and Experiential Learning Center (SDELC), the Writing Center, the Undergraduate Advising Office (UGA), the Center for Education Research and Teaching Innovation (CERTI) and the Learning Enhancement Across Disciplines (LEAD) program.

1. **Promote Significant Experiential Learning Activities Throughout All Undergraduate Degree Programs** (Theme 1, Theme 2, Theme 4; Lever 1.1.1; Action 2.3.8). Most recent higher education research indicates the three most effective high-impact activities that enhance undergraduate learning are: early undergraduate research experiences, active learning environments, and engagement in learning communities. Undergraduate Studies will lead the campus efforts in promoting a wide suite of experiential learning activities that will include undergraduate research e.g. Opportunities for Undergraduate Research Experience (OURE) and the OURE fellows programs), SDELC (student design teams), Honors Academy, etc. Action 1.1.1 in the Campus Strategic Plan calls for 100% of S&T undergraduates to complete a significant experiential learning activity prior to graduation and the Division of Undergraduate Studies will lead efforts and champion this action to successful completion. The S&T Higher Learning Quality Initiative will be the Action 1.1.1 pursuit of 100% of our undergraduate programs requiring a significant experiential learning activity for all graduates.

2. **Increase Meaningful Interactions Between Students, Faculty and Staff** (Theme 4 of Missouri S&T Strategic Plan; Lever 1.2 of S&T Strategic Plan). Missouri S&T does not perform well on the National Survey of Student Engagement (NSSE) which surveys first-year students and seniors at hundreds of institutions every three years. Missouri S&T first-year and senior students report lower than average student/faculty engagement as related to our NSSE comparator institutions and institutions in our Carnegie class. The Division of Undergraduate Studies will be the champion of and will enthusiastically promote increased student/faculty/staff interaction on the Missouri S&T campus through such activities as: Master Student Class, Freshmen Engineering advising, On Track, SDELC, Honors Program, Learning Enhancement Across Disciplines program (LEAD), CERTI development efforts, UGA advising seminar programming, etc.

3. **Champion the Importance of Academic and Professional Integrity and Ethics** – expand this notion to include the development of Personal and Social Responsibility (Theme 1 -- Lever/Actions: 1.2.3, 1.2.5, 1.2.6, 1.2.7). The UGS office will be the campus champion for promoting Personal and Social Responsibility for all undergraduates through programming and outreach in the Writing Center, UGA, Freshmen Engineering, SDELC, and through educational/outreach efforts based on the academic integrity responsibilities of the office. A recent issue of the journal New Directions for Higher Education focused on Developing Personal and Social Responsibility (PSR) (Robert D. Reason, ed., No. 164, winter 2013) and offered the following five broad dimensions of PSR:
   i. Striving for excellence
   ii. Cultivating personal and academic integrity
iii. Contributing to a larger community  
iv. Taking seriously the perspectives of others  
v. Developing competence in ethical and moral reasoning

The Division is the lead office with respect to academic integrity issues and will be a key promoter of these concepts for the campus in collaboration with the Division of Student Affairs (which is responsible for student conduct and behavioral issues related to personal and social responsibility)

4. **Promote the Most Effective Best Practices for Instruction and Advising** [focus on active learning and, especially, interactive learning – also focus on developmental as well as academic advising issues] (Theme 2 – Lever/Action 2.5.1, 2.5.2, 2.5.3 ; Theme 4 -- Levers 4.2, 4.3, 4.4, 4.6. 4.7, 4.8 and 4.9 ) Speech and Communication Center, LEAD, CERTI (New Faculty Programs), UGA (On Track) , Hit the Ground Running (HGR), SCRD, HLC accreditation, Writing Center, Freshmen Engineering, (CERTI and Educational Technology (Ed Tech)) Peer Teaching Evaluation.

   a. Re-introduce the importance of Learning Communities, especially for 1st generation, female and under-represented minority students. Work with the SDELC, LEAD, Student Affairs, Residential Life and other interested parties to develop effective learning communities across a wide spectrum of student demographics and student interests.

5. **Promote Development of Staff -- Focus on Optimization and Lean Operation of the Division.** Promote the development of leaders and the visibility of the outstanding staff in the division through professional development activities, delegation of responsibilities, and a united team effort. Inculcate a “Smart Systems” and lean operational approach that concentrates on activities that we can do well and that contribute to the S&T strategic plan (thus, we will continually assess our efforts and reduces focus in areas that are not part of the strategic plan and/or that are not areas which can be adequately addressed within the context of efficiency/effectiveness of the Division. For example, continue to support the transition of the Charter School sponsorship from S&T to the University of Missouri – Columbia Charter School Office. Goal is to have sponsorship transferred by July 1, 2014.)

6. Undergraduate Studies will lead the campus efforts to insure that ongoing assessment, focused on continuous improvement of student learning and achievement of learning objectives, is carried out by all degree programs in a coordinated and meaningful way as required by the Higher Learning Commission (North Central Association).

**Comparator Institutions** --- The S&T campus Strategic Plan uses the following institutions for Best-in-Class comparison for Undergraduate Return on Investment: Purdue, Illinois, Iowa State, Arkansas, St Louis University (refer to page 91 of S&T strategic plan)

From this group Purdue seems to have an office of Undergraduate Academic Affairs that is most similar in many of its operations and responsibilities to our Division of Undergraduate
Studies and therefore Purdue will be the model/focus of our divisional aspirational efforts. In terms of retention and graduation rates the Purdue comparison is clearly a “stretch” ideal toward which to aspire:

a. Purdue 1st to 2nd year retention is hovering around 90% -- their strategic plan goal is 93%
b. Purdue 6yr graduation rate is at about 72 – 73% and their goal is to approach 80%

Performance Metrics for the Division of Undergraduate Studies at S&T

1. 1st to 2nd year retention: baseline = 85% 2020 target = 88% (2012-13 actual 1st year to 2nd year at S&T was 82.6%). Official 1st year to 2nd year retention rate is calculated based on 4th week enrollment in Fall semester. The 2013-14 goal is to get back to the baseline of 85% and the stretch goal is to get to 86%. The 2014-15 goal will be 86%. The 2015-16 goal will be 87%. The 2016-17 goal will be to maintain at 87% and then to hit 88% by 2020.

The most recent S&T 6-year graduation rate was: 63% (per Institutional Research). The goal is to achieve a 6-year graduation rate by 2020 of 70%. This is a longer-term goal based on achieving increased 1st to 2nd year retention rates (see above). It may be unrealistic to expect major improvements in the 6-year graduation rate until about 2019 and 2020 as the efforts at retention for the 1st and 2nd year students begin to pay off in terms of 6-year graduation rates. Realistic interim goals will be linked to ongoing comparisons of 1st to 2nd year, 2nd to 3rd year, and 3rd to 4th yr retention rates. It might be reasonable to target 1% to 2% increases each year from 2015 through 2020 and reevaluate as needed.

WE HAVE PLENTY OF ROOM TO IMPROVE -- AN OPPORTUNITY!

2. NSSE data on meaningful student/faculty/staff interactions: S&T does not fare well → we need to increase our students’ perceptions of meaningful student, staff, and faculty interaction at S&T in the responses to the NSSE survey. Missouri S&T is especially low on the First-year Student perception of student-faculty interaction as reported in the NSSE survey, where our mean percent is 15.9 as compared to a mean for our peer institutions of 18.7. Levers 1.1 (require experiential learning in every u.g. degree program) and 1.3 (establish database of measures to define student access to faculty and staff) will hopefully address some of this, but competing resource needs in academic departments and increased focus on research/graduate/scholarly production in some departments may threaten to exacerbate the perception of our undergraduates that faculty are not all that interested in meaningful interaction.

Best-practice higher education research indicates that the most effective, high-impact practices for maximizing educational gains through meaningful interaction are as follows: service-learning, learning communities, internships and career prep experience, research with faculty, study abroad, and senior culminating experiences. Senior culminating experiences include a senior thesis, field placement or
practicum, comprehensive senior exam, or capstone course in major (Interestingly, NSSE data indicate that a required capstone course in the major had less impact on student self-reported gains in abilities compared to other culminating experiences).

a. NSSE survey occurs every 3 years or so. Our Division of Undergraduate Studies internal goal is to work collaboratively on campus so that by 2020 there is a significant increase in S&T first-year student and senior perception of student-faculty interaction such that S&T average scores are above the mean of our NSSE Peer Institutions and our Carnegie class comparators. Intermediate targets will be as follows:

1. 2016 NSSE survey → First-year students mean score for “student-faculty interaction” equal to 19.0 (2013 NSSE S&T score is 15.9, mean for Peer Institutions is 18.7) ; and Senior mean score for “student-faculty interaction” equal to 25.0 (2013 NSSE S&T score is 22.6, mean for Peer Institutions is 23.1 ).

2. 2019 NSSE survey → First-year students mean score for “student-faculty interaction” equal to 22.0 (2013 NSSE S&T score is 15.9, mean for Peer Institutions is 18.7) ; and Senior mean score for “student-faculty interaction” equal to 26 (2013 NSSE S&T score is 22.6, mean for Peer Institutions is 23.1 ).

NOTE: We will attempt to ascertain the NSSE numbers of some of our Peer Institutions and, particularly, Purdue University as a specific comparator to inform these goals.

b. A baseline of performance will be developed in the academic year 2013-14 based on number of students participating in significant experiential learning activities supervised and supported by the Division of Undergraduate Studies. We will work to establish baseline 2013-14 numbers of participants in significant experiential learning activities on the student design teams in the SDELC, in OURE research work, as mentors in the On Track program and in the Hit the Ground Running program, participants in the as Peer Learning Assistants in the LEAD program, as writing tutors in the Writing Center, and as peer mentors in the Speech and Communication Center. The goal will be to increase, where appropriate and where funding might be available, in the number of undergraduates participating in UGS sponsored experiential learning activities. Stretch Goal is to increase roughly 5% per year. We do not have a baseline of number of degree programs that currently require a significant experiential learning activity in order to graduate but that baseline will be established for 2013-14 academic year. A realistic goal is to strive to insure 2/3 of those degree programs that currently do not require a significant experiential learning activity to do so by 2017 and to insure the final 1/3 of the degree programs to do so by 2020.

c. A joint effort between the Division of Student Affairs and the Division of Undergraduate studies will be launched as a pilot in SP14 to provide a targeted, out-of-classroom experience for Math 2 students using undergraduate peer mentors in order to increase engagement and increase the number of students successfully passing the Math 2 College Algebra class and moving on to the next level of mathematics. Results from the pilot study will be analyzed in the summer of 2014 and, hopefully, successful results will inform efforts to offer an effective permanent type of Math 2 out-of-classroom student success initiative in future.
3. **Increase in meaningful interaction between students, faculty and staff and professional development of staff and faculty.** The goal is to increase the number of collaborations, contacts with faculty and staff in terms of professional development activities by CERTI, the Undergrad Advising Office, and the SCRDO (K-12).
   a. Baseline records will be established in the 2013-14 academic year of CERTI attendance at teaching seminars, UGA office attendance records at advising series seminars, and of SCRDO outreach efforts in the K-12 arena. Goal is to increase attendance and number of offerings by 5% each year.
   b. Another goal is to develop a peer teaching evaluation team of recognized outstanding teachers who will receive training and support from CERTI and EdTech to carry out voluntary peer teaching evaluations of junior faculty in order to help improve teaching pedagogy and to encourage use of best-practices and the latest technology to enhance effectiveness. Initiation of this peer teaching evaluation team will occur in Fall 2014.

4. **Develop a structure for ongoing, continuous assessment and continuous improvement in all degree programs** that will satisfy the HLC accreditation needs and will lead to meaningful data collection, analysis and changes in the way we approach and deliver undergraduate higher education. Mark Fitch (as campus liaison) will work closely within the Division of Undergraduate Studies and with Institutional Research in order to promote HLC guidelines on assessment and yearly or at least timely data uploads to the HLC site. The goal is to achieve a smooth and effective re-accreditation in 2018. One very important intermediate goal is to insure that 100% of the degree programs have in place an acceptable assessment plan that is working (with data collection and continuous improvement metrics via a feedback loop) by December of 2015. As of 2013 there are four degree programs that have never actually completed a Program Assessment plan.
SUMMARY STATEMENT

The Division of Undergraduate Studies is committed to providing leadership, hard work and service to the campus in order to promote the defining themes of the Division’s responsibilities: to provide the best return on investment for Missouri S&T customers by focusing on promoting best practices in pedagogy, student advising, high impact out-of-classroom experiences, personal and social responsibility, and continuous improvement through assessment and accreditation. We will focus on critical needs and, especially, on promoting a campus culture where each undergraduate program seeks to provide the best learning environment with meaningful interaction between students, faculty and staff; with the opportunity for early research experiences and other experiential learning activities; and with efforts to provide every undergraduate student an avenue for engagement in one or more learning communities. We will carry out our work with a spirit of enthusiasm and collaboration with all units and departments on campus. We will work with everyone on campus, in the Rolla community, in the UM system, and throughout society to maintain the great traditions of MSM/UMR/S&T while at the same time changing as needed to provide the best and most relevant higher education experience to 21st century Missouri students and students from around the world.

APPENDICES

A. INDIVIDUAL UNIT DETAILED STRATEGIC PLANS

LINKS TO THE INDIVIDUAL UNIT STRATEGIC PLANS WILL BE AVAILABLE WHEN THOSE PLANS ARE POSTED. THE PLANS ARE CURRENTLY AVAILABLE ON REQUEST FOR THE FOLLOWING UNITS:

Student Design and Experiential Learning Center
Writing Center
Undergraduate Advising Office
Center for Educational Research and Teaching Innovation
Speech Communication Center
Learning Enhancement Across Disciplines
## Performance Measure Template for Undergraduate Studies

**Establishing Performance Measures for Non-Degree Awarding Units**

### Office of Undergraduate Studies

<table>
<thead>
<tr>
<th>Criteria for Choosing Performance Measure</th>
<th>Performance Measure</th>
<th>Source for performance measure data (such as Institutional Research, ASEE, independent survey)</th>
<th>Brief description of the performance measure and how it will be obtained/ calculated. In case of multi-part measure, how each part will be weighted</th>
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<tbody>
<tr>
<td>Important measure of student success</td>
<td>1. 1st- to 2nd-year retention rate</td>
<td>Registrar and IR calculate based on 4th week enrollment numbers</td>
<td>Percentage of FTC freshmen who return for the Fall semester of their sophomore year</td>
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<td>Assist in offering opportunities for experiential learning for u.g. students</td>
<td>2. Number of UGS Division opportunities that are significant experiential learning activities</td>
<td>SDELC, Student Affairs (OrgSync), internal tracking databases in UGS</td>
<td>A baseline of performance will be developed in academic year 2013-14 based on number of students participating on design teams (SDELC), number of students participating in OURE, etc. Performance metric will be improvements from that baseline in total number of significant experiential learning activities as catalogued by variety of sources</td>
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<td>Increase in meaningful interaction between students, faculty and staff</td>
<td>3. Number of students participating/using student service programs in UGS (Freshmen Engineering, SDELC, Writing Center, Speech and Communications Center, Undergraduate Advising Office, OURE, LEAD, Honors Program, Hit the Ground Running)</td>
<td>SDELC, individual unit participation records, Each unit will establish a baseline in academic year 2013-14 based on number of students participating, number of programs/teams, amount of outreach, general usage of unit services, etc. From that baseline, each unit will be judged on documented improvements: increase in number of students served, successful completion of programs, etc.</td>
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<tr>
<td>Increase in meaningful interaction between students, faculty and professional development of staff and faculty</td>
<td>4. Number of collaborations, contacts with faculty and staff in terms of professional development activities for CERTI, South Central Regional Development Office</td>
<td>CERTI attendance records at CERTI seminars, workshops and summits. SCRDO records of teacher development workshops and training seminars (and DESE has some external performance metrics for SCRDO that can be part of the evaluation) CERTI and SCRDO both keep attendance records of development activities they coordinate. The performance metric will be evaluated using the 2013-14 academic year attendance/collaboration numbers as a baseline.</td>
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<td>Meaningful interaction and quality advising</td>
<td>5. Successful “roll out:” of the STARFISH advising and early alert software and enthusiastic use</td>
<td>Usage data from IT and the development of a survey instrument to evaluate the IT and surveys administered by UGS</td>
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<td>of the software – the goal is to get at least a majority of the faculty and staff advisors using the software to improve advising and, ultimately, to have nearly 100% of advisors and instructors using the software.</td>
<td>effectiveness of the software and the degree of use by the faculty and staff advisors</td>
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