

University of Science & Technology

STUDENT SUCCESS COMMITTEE 2015-2016 ANNUAL REPORT

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Special thanks to the following offices as sources of information:

College of Arts, Science, and Business
College of Engineering & Computing
Enrollment Management
Graduate Studies
Institutional Research & Assessment
Educational Technology
Student Affairs
Undergraduate Studies

Introduction

The Student Success Committee serves as an advisory committee appointed by the Chancellor to address key issues related to improving student retention and student academic success. During the 2015-16 academic year, the Student Success Committee met every other week under the direction of two chairs: the Vice Provost for Undergraduate Studies and the Vice Provost and Dean of Enrollment Management. This report includes a summary of the primary issues addressed by the Student Success Committee, as reflected in the 2015-16 meeting minutes.

Committee Background and Charge

The Student Success Committee is charged with investigating and recommending to the Provost and the Chancellor specific programs, processes, and services that will serve and support all Missouri S&T students in achieving their educational, professional, and personal life goals.

In completing these tasks the Student Success Committee will:

- 1. Focus on undergraduate and graduate student success within the context of the mission and vision of Missouri S&T. The committee will emphasize in its work the S&T values of life-long success, creativity, integrity, sustainability, partnerships, and inclusion.
- 2. Take into account the diverse nature of the students we serve at Missouri S&T, the diverse nature of the majors and minor programs we offer, and the increasingly complex blend of modalities in communications and delivery that are used in instruction, advising and research.
- 3. Investigate best practices in serving a broad profile of students ranging from traditional students (18 to 24 years of age), to adult/older students, transfer students, and diverse populations that may include underrepresented minorities, international students, first-generation students, low-income students, veterans, full- and part-time students, etc.
- 4. Keep the university community informed through publication of an annual report.
- 5. Research best practices in supporting all students so that they persist to graduation such as the following:
 - Best practices in student transitions from high school or from another higher educational institution to a university including, but not limited to, summer bridge programs, incoming freshmen placement exam policies, residential life policies and programming, learning/living communities, freshmen and sophomore seminars, honors programs, freshmen or university-wide common

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reading projects, peer mentoring, at-risk student monitoring (i.e. student success mentoring), etc.

- Best practices aimed at increasing retention of both new and returning students including, but not limited to, intrusive advising, early warning systems, academic mapping and planning tools, financial aid policies, etc.
- Best practices aimed at improving student success in key academic courses that have high rates of students dropping out or receiving grades of D or F.

The student success committee members are appointed by the Chancellor and will typically include a broad range of representation including faculty, staff, and students from a wide range of offices and disciplines at Missouri S&T.

The Student Success Committee meets every other week (during the academic year) to discuss issues related to improving student retention and student academic success, and to implement new programs and processes that impact student retention. In November, the Student Success Committee presents its findings and recommendations to the Chancellor. A copy of the annual report is available on the Undergraduate Studies website and upon request.

Executive Summary

Accomplishments from the November 2015 Recommendations

- Hired 3 professional staff advisors to help with the large numbers of FEP students.
- Hired Starfish (S&T Connect) position in Registrar's office.
- Completed full year of prerequisite checking and results/data are being analyzed
- Secured \$100,000 in funding for Hit the Ground Running and Institutional Work Study based on a proposal submitted to the UM System Comprehensive Retention Initiative (CRI).
- Partnering in and expanding Advising Summit (a continuing CRI 4-campus program).
- Created graduate student focus groups and conducted interviews
- Conducted the first Half-Way to Graduation event for 2nd-semester sophomores
- Continued MASH success mentoring for Math 1120.

Recommendations by the Student Success Committee in October 2016

- Form and charge a subcommittee to study the nature of the 4% drop in 1st to 2nd year retention for the fall 2015 cohort and possible factors contributing to that drop.
- Continue to improve compensation and workload of graduate assistants to attract the best students (e.g. S&T should set an aspirational goal of extending tuition waiver or remittance to all graduate students earning 25% FTE and above).
- Improve support structures for success of graduate students (e.g. create a Graduate Success and Resource Center as a one-stop shop for graduate student resources and referrals).
- Improve and promote graduate education culture (e.g. explore "best practice" model of improving the culture of graduate education).
- Create an annual or biannual report on transfer students' retention and success.
- Develop and administer a comprehensive survey of entering transfer students' attributes and expectations
- Provide early and enhanced exposure of transfer students to such high-impact student success programs as experiential learning, COER, residential life programs, and the wide variety of student organizations.
- Develop an Advising Council (similar to the council at MU) to make recommendations to S&T leadership (Provost, Vice Provosts and Deans) regarding academic advising of undergraduates.
- Hire an additional professional staff advisor for the Undergraduate Advising Office to assist in retention efforts with the growing number of probationary, deficient, and conditionally admitted student advised by that office.
- Complete the hiring of professional staff advisors for the Freshmen Engineering Program. Three of the four professional staff advisors that were in the long-term FEP plan have been hired.

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• [not sure what recommendations I can glean from the Time/Hours to Graduate Subcommittee report ... maybe simply that the study should continue and be focused on individual degree program minimum hours to graduate versus the actuals?]

The Student Success Committee reviewed the following documents:

- Cumulative Retention & Graduation Rates of First-Time, Full-Time Degree Seeking Freshmen (Appendix A)
- Retention Strategies & Tactics (Appendix B)
- Non-returning FTC survey results (Appendix C)
- Calculus Redesign Presentation (Appendix C)
- Student Veteran Resource Center (Appendix C)
- Enrollment projections (Appendix C)
- Summary of HGR student performance (Appendix C)

2015-16 Student Success Committee Members

Co-Chairs:

Dr. Jeff Cawlfield, Vice Provost for Undergraduate Studies Laura Stoll, Vice Provost and Dean for Enrollment Management

Committee Members:

Timothy Albers, Director, Recruitment Marketing and Enrollment Development, Enrollment Management Bridgette Betz, Director, Student Financial Assistance, Enrollment Management Dr. Carl Burns, Vice Chancellor of Student Affairs Dr. Steven Clark, Chair, Mathematics Tyrone Davidson, Director, Academic Advising, Office of Undergraduate Studies Dr. Kate Drowne, Ph.D., Associate Dean, College of Arts, Sciences, and Business

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Cecilia Elmore, Director, Student Diversity, Outreach and Women's Programs, Enrollment Management Patty Frisbee, Director, Student Success Programs, Enrollment Management Dr. Larry Gragg, Curators Professor, History Angela Hammons, Manager, Educational Technology (ex-officio) Deanne Jackson, Registrar, Registrar's Office, Enrollment Management Dr. Katie Jackson, Assistant Director, Miner Alumni Association Erica Long, Senior Academic Advisor, Mechanical & Aerospace Engineering (ex-officio) Dr. Oyebanjo Lajubutu, Director, Institutional Research & Assessment Dr. Doug Ludlow, Director, Freshman Engineering Rachel Morris, Assistant to the Vice Provost, Undergraduate Studies Dr. John Myers, Ph.D., Associate Dean, College of Engineering and Computing Adrienne Neckermann, Assistant to Vice Provost for Graduate Studies (ex-officio) Dorie Paine, Director, Residential Life Dr. Mark Pottorff, Assistant Director, Career Opportunities & Employer Relations Dr. Stephen Raper, Assoc. Professor, Engineering Management & Systems Engineering Kristi Schulte, Associate Director, Residential Life Lynn Stichnote, Director, Admissions, Enrollment Management Dr. Klaus Woelk, Associate Chair, Chemistry Austin Lohr, Student Representative Alyssa McCarthy, Student Representative

Current Status of Missouri S&T Retention

In 2008, Missouri S&T achieved a record high I^{st} to 2^{nd} year retention rate of 88%. Since 2008 the figure has fluctuated irregularly between 83% and 87% (over the last 5 years, the median I^{st} to 2^{nd} year retention rate is 85%). For the fall 2015 cohort, the first year retention was 83%; this is 4% below the rate for the fall 2014 cohort. A 4% decrease is significant and needs to be studied further. A subcommittee will investigate possible reasons and factors contributing to the 4% drop during the 2016-17 academic year.







A metric of Theme 4 in the Missouri S&T 2013-2020 Strategic Plan is "first-to-second year undergraduate student retention rate (Baseline: 85%, Target 2020: 88%)". As the Student Success Committee moves forward with its charge, the measurement of the committee's achievement of success will be this metric.

A full report of Cumulative Retention & Graduation Rates of First-Time, Full-Time Degree Seeking Freshman, is included as Appendix A of this report. A complete list of Retention Strategies and Tactics is included as Appendix B.

Key Issues Addressed by the Committee

In 2015-16, the Student Success Committee focused on four priority goals deemed critical to retention issues. The committee organized itself into four subcommittees to coordinate the implementation of recommended actions. Action items were pursued as tactical planning items where practical.

Subcommittee #I: Graduate Student Experience

Members: Oyebanjo Lajubutu (co-chair), Adrienne Neckermann (co-chair), Bridgette Betz, Steve Clark, Cecilia Elmore, Katie Jackson

Subcommittee #2: Transfer Student Success and Engagement

Members: Lynn Stichnote (chair), Deb Anderson, Bridgette Betz, Kate Drowne, Cecilia Elmore, Angie Hammons, Oyebanjo Lajubutu, Doug Ludlow, Mark Pottorff

Subcommittee #3: Advising Center Models and Best Practices

Members: Tyrone Davidson (chair), Tim Albers, Jeff Cawlfield, Patty Frisbee, Larry Gragg, Deanne Jackson, Doug Ludlow, Alyssa McCarthy, Rachel Morris, Dorie Paine

Subcommittee #4: Time to Graduation/Credit Hours

Members: Steve Raper (chair), Jeff Cawlfield, John Gallagher, Angie Hammons, Rachel Morris, Oyebanjo Lajubutu*, Laura Stoll

*Oyebanjo Lajubutu will serve as data support for this subcommittee

Subcommittee #I: Graduate Student Experience

Charge:

The sub-committee was established to examine how to improve graduate student experience at Missouri S&T. The sub-committee charge:

- Examine the quality of life issues (funding, housing, community, etc.) affecting graduate students.
- Examine the academic experiences of graduate students.
- Explore how non-academic resources (professional, and educational) are provided to graduate students.
- Make recommendations to improve graduate student experience.

Available Resources for the Sub-Committee**

- 1. Access to graduate student data available through the Office of Graduate Studies or the Office for Institutional Research and Assessment.
- 2. Resources and expertise from across campus.
- 3. Information and data regarding best practices in graduate education.
- 4. CGS: Analysis of Baseline Demographic Data from the Ph.D. Completion Project
- 5. NSF Science and Engineering Doctorates (2013) Analysis (http://www.nsf.gov/statistics/sed/2013/)
- 6. S&T Strategic Plan (<u>http://strategicplan.mst.edu/</u>)

**Meeting dates are provided in Appendix i.

Abstract and Overview

Last year the sub-committee administered the first ever graduate student experience survey which provided a snapshot of the educational experiences of graduate students. This year the sub-committee gathered rich qualitative data to better understand the experience of graduate students.

The sub-committee first met on March 18, 2016, to begin organizing its work and from that meeting, decided to focus attention on two primary activities. First, analyze the doctoral completions and time to degree (TTD) by entering cohorts so that informed data-driven decisions can be made. Second, conduct a focus group interview with a selected sample of graduate students.

Our premise was that graduate students that are well taken care of will be productive students and perhaps resourceful alumni whom the university can turn to for support.

We spent most of the spring and summer of 2016 analyzing the TTD data and conducting and analyzing the results of the focus group interview.

I. Analysis of Doctoral Completions and Time to Degree

The analysis of doctoral completions and time to degree followed the Council of Graduate Schools (CGS) guidelines, but two data collection and integrity issues in the University database hindered the completion of the report. First, we cannot fully determine those students entering the doctoral programs with either a bachelor's or master's degree. Second, it is impossible to determine the actual dates the students were admitted to candidacy.

Recommendation:

Fix the data issues as quickly as possible. The data custodians are working diligently to rectify the issues.

2. Graduate Student Focus Group Interview

The focus group interview, moderated by a skillful committee member, was held on June 8, 2016 at Centennial Hall using pre-determined questions attached in Appendix II. The environment for the focus group interview was comfortable with circular seating and the interview was tape recorded. The entire transcript is available online and in Appendix IV.

Overall, eight students were recruited to participate, four female and four male. Three were Master's degree students and five were doctoral degree students. Four students were U.S. citizens and four were international students. Two students were from Materials Science and Engineering, two from Mechanical Engineering, one from Electrical Engineering, one from Computer Science and one from Petroleum Engineering. The last student came in late and her major was unknown. Attempts to have participants from the College of Arts, Sciences and Business proved abortive.

Five issues affecting graduate student experience:

a. Funding:

The students felt that availability of funding isn't always made clear in their letter of acceptance or on the University website. Many students who were offered assistantships came to S&T believing

that they will qualify for a tuition waiver but did not know that they will have to pay in-state tuition and fees. Students are led to believe funding is available but then there is lack of funding after coming to S&T.

b. Advisor limbo:

Several students talked about not being assigned an advisor or having a difficult time finding an advisor when they arrived at S&T. The advising limbo was known to persist for 6 months to 2 years. A student's advisor is typically determined by whether they are funded or not funded. If a student is not funded then they would be advised by the department's graduate director by default.

c. Lack of knowledge about how to maneuver:

Students say they were in the dark about their responsibilities and did not have a clear understanding on how to navigate graduate school. They felt little was done to communicate a list of tasks or priorities after their admission to the University.

d. Grunt work:

Students indicated that they were often asked by their advisors to do grunt work unrelated to their degree, teaching or research, such as cleaning office space when faculty were being reassigned, or doing yard work for their advisor.

e. Desire for increased graduate specific resources:

Students indicated that non-academic resources were not available to them, such as graduate student writing, shuttle bus services to surrounding metropolitan areas, training or mentorship programs and social organizations/events geared just for graduate students. Actions taken after the Focus Group Interview

Funding:

A few weeks after the focus group, new funding for graduate students was announced. This new funding offers tuition and supplemental fees remission to doctoral students and to master's students in non-doctoral granting departments if their GRA/GTA/GA appointment is at least 37.5% FTE.

Orientation:

In the last two years, the New Graduate Student Orientation has been enhanced each semester to reflect the needs of new graduate students (surveys are administered after each orientation and the next semester's agenda is modified to reflect suggestions from the surveys).

After the focus group, the orientation was "revamped" to better meet some of the needs expressed in the focus group.

 The orientation was moved up to the week before classes start (previously offered during the second week of classes)

- It was adjusted to be a day-long event (previously it was a 3-hour-long event)
- Additional speakers and resources were invited to address concerns raised in the focus group
- Longer time allotment was given to speakers discussing "How to find a Faculty Advisor," "How to find funding," CPT/OPT and career services, counseling, and library resources (also allowed more time for Q&A with speakers in round table discussions)
- Added a "Get to know your Graduate Studies Advisor" activity so that students were more comfortable with the Office of Graduate Studies as a whole.
- The following information tables were added for students to visit to learn more about services available to them (previously only included: Technical Editing, Council of Graduate Students, Celebration of Nations, IT, Library, University Police, COER, and Student Life).
 - eBus
 - Counseling, Disability Support and Student Wellness
 - Rolla Public Schools
 - Chamber of Commerce
 - Student Health Center
 - Leach Theatre
 - Rec Center/Intramurals
- Offered a campus walking tour and an eBus tour of the community

Overarching Recommendations:

To improve graduate student experience as well as retention and recruitment the sub-committee suggests three overarching recommendations:

- 1. Continue to improve compensation and workload of graduate assistants to attract the best students.
 - a. Funding expectations should be made clear to prospective students in their letter of acceptance.
 - b. To improve recruitment and retention, ranking, and be competitive with peer institutions, S&T should set an aspirational goal of extending tuition waiver or remittance to all graduate students earning 25% FTE and above.
- 2. Improve support structures for success of graduate students
 - a. Review "best practices" of graduate admission offer letter.
 - b. Department introduction letter should consistently follow the graduate admission letter.
 - c. The Office of Graduate Studies should revise the current Orientation Seminar and include additional student and staff presentations.
 - d. Various websites (department and graduate office) containing information on graduate students should be kept current and centralized.
 - e. Create a new Graduate Success and Resource Center.
- 3. Improve and promote graduate education culture
 - a. The Dean of each college should send a strong message to the faculty/advisors that GRA/GTA/GA assignments must remain within the scope of teaching and research. No "grunt or personal work" should be assigned to graduate students.

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- b. The Office of Graduate Studies should create awareness or a list of non-academic services/resources already available, perhaps in their offer letter.
- c. Explore "best practice" model of improving the culture of graduate education.

Areas of Further Study:

- Conduct a focus group interview of CASB graduate students.
- Publish the doctoral completions and time to degree completion report annually.
- Examine the 2016 graduate student workplace climate survey and use results to improve graduate student experience.

Appendix i: Meetings of the Sub-committee

- March 18, 2016
- April 1, 2016
- April 29, 2016
- May 13, 2016
- July 11, 2016
- September 7, 2016 (sub-committee chairs only)
- September 13, 2016 (sub-committee chairs only)
- September 14, 2016

Appendix ii: Focus Group Questions

- How did you learn about S&T?
- Think back to when you first enrolled as a graduate student at S&T. Tell me about your first impressions.
- We have talked a little bit about the Admissions experience already so my next question is what was the admissions experience like for you?
- Can you talk a little bit about your advisor's communication style and the level of support that they provide? I am thinking of your current advisor.
- What would you say is your biggest non-research challenge impacting your degree completion pace?
- What would make life as graduate students easier? What barriers are you experiencing now that if they were removed might help you to complete your degree earlier?
- How long do you think it should take to complete a Master's Degree? And the same question for PhD.
- What resources would you like to be available for graduate students that are not currently provided by S&T or the Rolla community?
- Is there anything I missed? Is there anything you came here to say but haven't had the chance?
- Any final thoughts?

The following pages are transcript notes from group interviews.

Appendix iii: Focus Group Interview Transcript June 8, 2016

My name is Katie Jackson and I am a member of the Student Success Committee. Every year we break into subcommittees to look at different aspects of the student experience and so this year I am on the Graduate Student Time to Graduation Subcommittee. Last year they did a survey to kind of look at the graduate student experience and so now we are trying to get some more rich data, I guess you could say, on what that student experience is like. We want your thoughts on graduate school and so we are interested in hearing from each person. Everyone's input is important and there are no right or wrong answers either. We will be recording this session because we don't want to miss anyone's comments. No names are going to be used in any of our reports from here on out. So thank you so much for your time today to share your thoughts and opinions. Don't feel like you only need to respond to me. You might hear something that someone else says that you might want to follow up on. You can agree, you can disagree. Again there are no right answers. I'm guessing that people will have a different opinions on some of the questions that we will go through. If you aren't saying much, I might call on you so everybody has a chance to share their thoughts. If you've got a phone like I do, please put it on silent. If you need to take a call please feel free to step outside and come back in when you are done. Other than that I think that covers all of the ground rules. We will go around and say your name, where you are from and what type of degree you are pursuing.

My name is Ryan. I am originally from Maryland. I lived in New York for my undergrad and now I am here for my PhD. I am actually about 3.5 years to my PhD in Materials Science.

I'm Daniel Peterson and I am from Saint Louis. I did my undergrad here in Electrical and Computing Engineering. I am working on my PhD in Mechanical Engineering.

My name is Liz. I'm in the Materials Science Department. I did my undergraduate here and am one year into my Masters. Now I'm in Materials Science, not Ceramics.

My name is Trih. I got a Bachelor's in Chemistry from California. I moved out here studying Petroleum Engineering, getting my Master's.

I am ______. I am single. I did my Bachelor's in India and moved here to do my PhD. Actually I am a doctoral student in ______ Here I am in the Computer Science Department doing ______.

Hi, this is ______. I am from India. I'm doing my Masters in Electrical Engineering. It has been a year since I have come to US.

My name is Nancy Winterburg and I am with the Office of Institutional Research and Assessment. Adrienne Neckermann with the Office of Graduate Studies.

So First Question: How did you learn about S&T?

I went to the US News Ranking. Electrical and Computer Engineering was ranked one of the top most. And also the EMC labs is one of the best labs at S&T. So I just came by seeing US NEWS Rankings and the S&T website about the lab, the research work going on in the lab.

Did anyone else find it that way?

I went to Engineering too ______ S&T is pretty cool in Missouri. Also in research. It's not like some universities that if there is a medical school all the research is geared to that, statistics and medical. But here we can do all things in Computer Science instead of more focused into medical. So that is why I was interested because I didn't have a medical science background.

I actually heard about it through the ASM Materials Camp when I was in high school and came here before my junior year in high school and that is how I decided to go into Materials Science. I didn't come here right away, but I knew I would.

Welcome, we are talking about how we heard about S&T and there all different stories.

I came to summer camp, I came to Jackling and I felt bad because no one signed up for Materials Science and now I am in the Materials Sciences department.

I just knew people who came here. My dad's boss went to school here. He paid for the Student Design Center. Kummer.

Anybody else. OK, we will keep on moving then. Think back to when you first enrolled as a graduate student at S&T. Tell me about your first impressions.

It was simple to get enrolled, at least it used to be. You just went over to Grad Studies and they would waive most of the application stuff since I was already a student here. At least in the Mechanical department it was easy to get started.

I've had the same thing where you would have to sign a form saying that you wanted to be in this department. If you are an undergraduate here it wasn't hard to apply. Now everybody has to fill out, you have to have letters of recommendations, references, submit official transcripts from one office to the next. It has made it a lot harder for people I know that have had to do that.

It was a bit different for us. I was in India. I did my undergraduate ______ and then I just started googling professors that were known in my area of work and then I found a professor at S&T in my department and we exchanged emails. I told him all about my work and the research I had done in India, and he said OK you look like a good student, I'll pay you. Then I came here. After coming to Rolla on the second day I was here I went to his office, the first semester had not started then, it was like one week before the orientation, and he said that he was retiring and that he won't be hiring me. So you are on your own. What a disaster for me. For one year I had no advisor. A PhD student with no advisor, now that's an amazing story. Then Dr. ______ he said OK, I will give you money, for one semester I think, but you will have to find someone. Don't stick to your own area that you are working on. You have to move. ______. One fine day somebody signed me up. At least you finally found someone.

But not a very good start I would say. The sad part is this has been the story of most of the international students.

In my field, after one year, my professor is also from India. I was doing course study and research and I was enrolling for 9 credits. _____ Many times after you are doing your best.

They will give the work to another student. It is kind of a hidden truth, but it is still open. There is politics in everything.

I have a friend in the Mechanical department. He did his MS from one of the ______ schools in India. A very bright student, he comes here for his PhD. After two years of working with a professor that professor says, Ok why don't you just take an MS and leave? Why would somebody waste two years of his life when he already has an MS from India? He comes here to do PhD and then the professor says work, take MS and leave. That's like a breach of trust I would say.

Couldn't understand the next speaker.

Can I ask you guys a question? Do you have a clear message or understanding with the professors when you talk to them?

Yes

For instance, your friend, does he know that he came for a PhD and doesn't want to leave with a Masters.

That was a very clear understanding that I have done my undergrad and MS from India, ______ schools, grade 4.0 student. And then he joins here for PhD, works for two years and one fine day the professor says you know what, I think you should leave. Why don't you just take your MS defense in the next 2-3 months? And he doesn't want to leave.

I know people that that has happened to them too. They switched advisors. I know one person who came to me asking me if I could recommend an advisor because his advisor told him that when he goes to do his masters defense he will recommend that he fail. You shouldn't be doing that to your own students that's for sure. I don't mean to sound racist, but I know for sure that it happens more to foreign students than national ones. Which is not right.

The main reason for this is that national students have more ways of funding. For international students the one and only source of funding is through your advisor or to get GTA. And to top off that if your advisor signs you off, Homeland Security will knock on your door and throw you out of the country. So international students live in a lot of fear. If they have any trouble with an advisor they can't even speak about it because you never know when Homeland Security will knock on your doors. Homeland Security is a pretty big threat to international students.

And nobody wants to mess with them.

I know people who have been told that "the work you have done is good enough to graduate but I have this side project that I want you to do before I sign your paper. And by the way if you don't do it we will cut your funding and you'll be kicked out." I have known more than one person that this has happened to. I have seen a couple of US students that this has happened to.

Well this is good and I appreciate everybody's candidness here. We have talked a little bit about the Admissions experience already so my next question is what was the admissions experience like for you?

Pretty normal. Pretty fast. I applied to 7 universities, S&T was last, but it was the first that I heard back from. About a week. The admissions process was very fast.

So you applied to multiple places and were able to contrast and compare?

My thing was I got from Buffalo, but the cost of living was more there. So when I compared Missouri S&T was good academics and a cheap place to live.

I think the admissions process was OK, it was just the follow up and actually starting school and contacting people that I thought was pretty poor. Emails I sent out, people would send me to other places. Emails would go unanswered. I felt lost when I was trying to get started compared to other universities where I contacted them and I would receive emails right away from their departments or admissions or graduate studies. It was a lot easier at other schools.

I kind of had a similar experience. I was very fortunate in that I ______ I first came here because I was interested in working for a professor whose research was interesting and I found out that he was retiring basically that same year. So I ended up looking around to see who else, I had already been accepted to the school and I ended up working with the department's head of graduate studies in the Materials Science department. That turned out really well because he didn't play around or go anywhere. But at the same time it was a little bit disorienting and I think part of that was because at least in my undergraduate studies there really was no information given to us about what graduate school was going to be like. I had no idea what I was going to get into.

I agree that admissions wasn't hard but it's that first step of being here and now what? There is no introduction to grad school. You just kind of get thrown to the wolves' right when you start. You don't know how things work necessarily, you don't know how your GA is ______ It's a pretty big unknown.

I know we have an introduction in our department that first week, like the week before school starts, here's the handbook about how to get your degree and how to do this or that. But if you start over the summer you have no idea until the semester starts in the fall about what is going on. So it's like a delayed "oh that's what I need to be doing".

The Graduate Studies Office has the intro to Grad School Night. I did go to that but I didn't think it was terribly helpful. I mean having done my undergrad here I knew everything they said. Even at that it was just "here's what Campus Police does", "here's what this office does", but no real OK what do I need to do to get started in Grad School. How do I find funding, how do I do this _____. Here's a couple of places you can go talk to if your bike gets stolen.

I would like to tell one of friend's experience in admissions. My friend got admission for Master's in Material Science Engineering. But in Materials Science there is no option called non-thesis and thesis. In electrical department there is an option and I can finish my Master's even without thesis. But he got admitted to Materials Science but he didn't know that in Materials Science it is compulsory that they have to do masters and he came here and it was never mentioned on the website or anything. He came over here and then they started telling him that he cannot do a Master's here without an Advisor. And he never got an advisor. He also approached every professor in Materials Science and at last he came to a stage that they told him to switch to some other department. So he switched to Aeronautical but he wants to do his Master's in Materials Science. But he was in that position. And later finally he got an advisor, otherwise he would not have got any option to do anything else.

Can you talk a little bit about your advisor's communication style and the level of support that they provide? I am thinking of your current advisor.

I would say that mine is very upfront which is great. Always very honest about what he expects and tries to be very clear. That is not always the case, but I think he is very good about it, he definitely tries. I think some of that comes from his experience as a grad student and he tries to make sure that you understand what is expected which is good of him, but that is definitely not the case for everyone. My advisor is pretty good at communicating. It's hard to get a meeting with him sometimes but at the same time he's ______ He's only been here as long as I have been a grad student. I'm his first student. He's brand new to all that so naturally he's looking for lots funding and being shoved onto committees and anything else that eats up a lot of his time. He communicates fairly well, just isn't always available. ______

I have the same issues with my advisors. One of them is new and the other one is not as new. They are both behind all the time. So if you need to order anything you need a signature to do that, finding them is not always easy. My advisor I think has been here maybe three days in the last month. He's been traveling for work which happens but it's frustrating when you want to try to get things done. Sometimes having two advisors, they are not always on the same page. So you get one story from one person and another story from the other person. It's always hard to get them in the same room talking about one thing. I've had difficulties with that.

My advisor is one of the most senior professors in the Mechanical department. He is a Curator's Professor and we spend way too much time more than we should be spending. Mostly his whole weekend and a lot of late night meetings. Most of the stuff doesn't concern my research but it is all his stuff. Maybe sometimes I get a little time for my own work. For example, yesterday night I got an email at 10:00 at night saying I should be at his office at 10:30. I finished my dinner real quick and went to his office and was there until 2:00 at night answering his emails. I think that is really frustrating, I don't know.

I think that's a fair assessment.

I can expect an email at any time of the day and the middle of the night too. He expects an answer within a half an hour.

And then concerning my work, he doesn't tell me anything. He won't look at or correct papers. I have submitted so many papers and most of them have been rejected because of poor writing. Concerning the work is OK but he gives no contribution. I learned from the reviews on my own. The reviews were so good. The reviewers were so good. _______. There is little contribution, I work on my own. He will like the paper if certain students are added as contributors. Bias/Politics. When he is in the office he is very busy. He is the department chair so he does not have time.

I'm like them, I am lucky. I have a professor who is new. He just came back a year before. So he is always available. He is ready to help every time. He has a very good knowledge about the subject. He always helps and everything. The only thing is the funding. I never get funded. A Master's student is not expected to get funding in Electrical. It's like way competitive, even for a TA, it is very difficult to get one in Electrical. Apart from the funding thing I am fine with him. The selection of GTAs is a bit biased.

Hard to hear

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I have really good communication with my advisor. If I have something to ask I can send him an email or drop by. Most of the time it is addressed pretty quickly, if not this week, maybe next week. It's always pretty clear what the expectations are. *Hard to hear*

What would you say is your biggest non-research challenge impacting your degree completion pace?

I think the research is the only thing. I don't see anything holding me back other than research. And I already said in the beginning of this meeting that I wasted one year looking for an advisor and then another year where he didn't have a research objective for me. Making me do like every small thing in the lab. So I like wasted two years. So if I removed those first two years from my life, I would be in pretty good shape. I have taken all of the good courses offered in my department and I have a 3._____ GPA. Research is going well. I don't see anything that holds me back other than publications and all. Again that is my responsibility and I don't hold my advisor responsible for that.

I feel that a lot of times I get asked to do non-research related things. Like there are a lot of new graduate students coming into the department and there are offices that people have moved out of but they haven't been cleaned out. And I have a bunch of undergraduates working under me this summer and so I am kind of coordinating between my project and a couple of other projects and a bunch of cleaning we have to do. So I feel like I can't really focus on my research because I am constantly trying to keep them busy. Other non-research things come up.

Could not hear very well.....

Sometimes paperwork is an issue. So like if you do fill out a form. It has to go to one office for a signature and then it goes to another office for submission and I have had trouble where I have turned it into one office. They sign it, but I never know about it and even though the offices are next door to one another the form never gets to the right office. It was really frustrating because I was trying to sign up for classes and I couldn't because the hold was on because I needed a signature on a form and it was signed the day I turned it in but I didn't know that. I assumed that it was passed onto the other office. It didn't and they didn't call to let me know it was ready to be picked up.

Authorization for keys. You can go six months without keys. If you don't get to the lab by 5:00 pm you can't get into the lab.

What would make life as graduate students easier? What barriers are you experiencing now that if they were removed might help you to complete your degree earlier?

Making the system more transparent. Trouble hearing.

What I think is that there is a mis-coordination between the Admissions Office and the departments. For example, when I applied for PhD which is a very specific research study, it is not like you can just walk into the department and start working on that kind of stuff. So when a student applies for the PhD I think the Admissions Office sees his application, OK everything looks good. Offer him an admissions letter. But when the student walks into the department, he has no clue what to do. Nobody wants to hire him, nobody got funding. Everybody says ______ and the research isn't being done anymore, the websites aren't updated. So the student is lost. Just imagine a student coming from a foreign country getting all that painful miserable processing done. And ends up with nothing.

It's not always communicated very well.

There is a very big gap. I would very much appreciate it if at the time of admission that the Admission's Office forwards the application to the concerned department and if some faculty member is ready to accept that student he can take a telephone interview or SKYPE interview. I know that some other universities are doing this. This will be very helpful and it will not waste the time of the student and the student wouldn't be an unexpected burden on the department. For example, as he said not enough students qualified for the GTA workshop. Not everyone gets a GTA position. The reason for that is the University is offering a lot of admissions in a particular department and then that department cannot . We do not have that issue in the Mechanical Department. Almost everybody who qualifies for the GTA workshop gets a GTA position. Because we don't have a whole big number of international students. But again, when it comes to PhD, when it comes to funding, the situation is very bad. I don't know any single international student who comes for PhD and who is not lost. Almost one semester or one year of every international student is wasted. Just because there is a discoordination between the concerned department and the Admissions Office. I mean, in my case, I wrote a lot of emails and we had a lot of communication about concerns he had in hiring me, and then I get an _____ and an admissions letter and my visa stamped and then I walk in here and he says you know what, I'm retiring. I cannot give you a commitment of next 3-5 years. In one year I am retiring and I'm gone, so don't waste your time, look for somebody else. If I leave you in the middle that way, you won't be going anywhere. I mean I appreciate that he was honest at that time. But then again, if I had known that earlier I wouldn't have come to S&T. I could have gone to somewhere else. Garbled conversation.

You were supposed to be done about 5 minutes ago. We have about 15 minutes more worth of questions if you have time to stay. You are free to leave but if you can stay that would be great.

How long do you think it should take to complete a Master's Degree? And the same question for PhD.

A Master's two years and for a PhD three years beyond that is pretty normal. In my case I did it wrong and it's going to take me three years for a Master's.

I think five semesters for a Master's, seven at the most. That's a long time but five or six semesters I think would be OK if someone does two years, four semesters. That's pretty fast. Maybe 1.5 if you take summer classes. *Garbled*

Two years for a Master's ______, then some people will do it in 2.5 or three, but more than three I have not seen. But a PhD, four years is an optimum time. If he is fast he can finish it in three. A normal person can finish it in four. Someone who is slow or runs into some problems will finish it in five. But beyond five there is a problem.

There is also a difference say if you come here for a Master's and finish up with a PhD. If you come here straight for PhD you don't have the experience of Master's.

If you come here for a PhD right after your undergrad it is like a five year plan for to get both combined.

My funding is only for two (three) years though. Which is really tight. That's a big problem for a lot of graduate students. The funding organization, The National Science Foundation for example, or whatever, is giving the school money to help pay for your research, your salary, your half-time appointment, your equipment usage fees that comes with using the equipment here at the university. Roughly half of that money goes to the university, the other half is left over to pay the graduate student. What the grad student actually has. And the funding agency says that this is how much money is available. You have 2 ¹/₂ years for PhD and the advisor is responsible

Hard to hear

I have a few of my friends in the EMC lab, they have been doing their Master's and PhD for almost six years. This is their sixth year. And it will take another one more year so it will be seven years to do his PhD. But no matter what he will get placed at Apple because the EMC Lab is a very good lab. He will be placed at Apple and only because of that he is staying on.

You were talking earlier about helping us go through faster. I know a lot of kids have funding issues and being forced to finish early and feel that kind of pressure. But I know a lot of people that are just sort of comfortable, they are alright with some sort of funding or some sort of money from their parents even. Not having a job or not having to work is actually what keeps them here. They are kind of waiting for opportunities to stay in the US or just to find jobs. I notice with the Career Center it is more oriented towards undergraduates _______ But for graduate students its more directed towards either your research or something that you have expertise in. So it is a little tough when we go to the job fair and they are looking for someone with no experience. Four years or as junior or sophomore so I think like you said no matter how long it takes if you get a good job its OK. I can see some people willing to finish early just because they have something afterward.

I think with PhD more than years instead of 5 years or 6 years, it's more like if you can publish more. It is not the years that will count afterwards. It's amount of research you have done, the amount of publications. Because afterwards if you ______ you may not have the opportunity to publish. So it is more like that. But many students are told by their advisor do not ______ you have to graduate. They have more publications than they need from the funding agency. *Hard to understand*. There is also a learning curve too in whatever program you are in. In Materials Science there is a lot of hands on. You have to be trained to use the equipment, you have to get training and then you have to train other people. Like I know what you are doing it is more theoretical work and it doesn't take as much, you have to do a lot of learner, but it doesn't take as much to get into it. You don't have as much of that time where you have to learn to use the equipment, I have to use it correctly. Depending on what department you are in there is also the learning curve and if you're not good at it might take you longer than it might take somebody else to learn how to do it. So there is that factor that is kind of underlying in all of these things but it is not explicitly laid out that it will take you this long to learn how to do this.

What resources would you like to be available for graduate students that are not currently provided by S&T or the Rolla community?

For me it would be a Writing Center. I mean the Writing Center used to help graduate students. But when I started they quit doing that. I know there are one or two people over in Grad Studies who do

that but that's not their full time job. Their full time job is something else and this is a side job so they do it when they can. So if you need help revising a thesis or a paper you generally need that within a week or two not a month time frame, two month time frame. I'm really a terrible writer and it has taken me a year and a half to get to point where I can kind of write, I'm talking twenty revisions to ten. So it would help to have some writing resources because I know I've been told multiple times to go to the Writing Center and they don't do grad studies. Technical writing for journals is a completely different thing than for undergraduates. Maybe a class on how to write. I've asked around and I can't find anything here. I've been told there might be an on-line class at Mizzou, but I haven't been able to find out.

I think having resources about graduate school and how to navigate it would be helpful. I talk to a lot of undergraduates and they don't even really think about graduate school or anything. Some of them end up getting a second Bachelor's for some reason. And then, you mentioned this comment, that most international students waste a full year as opposed to American students. Why do you think that American students are not wasting a year?

I don't know about American students, I only spoke of my experience as an international student. What I said is that when an international student comes, they mostly come for MS or PhD. I hardly no anybody as an undergrad international student. So when they come here for graduate study

______. Like when I came in I was told by my department chair that I might be a rock star in India but give me one good reason to put my money on you. How do I do that? You show me the first semester and I will sign you right on the day. Ok. So I worked like an animal the

whole six months. I get what he asked for. Then I went to him and said, look, that's what you asked and that's what I got. Aah, you know, aah ______ I'm not working on this project anymore. Why don't you go to somebody else?

I think that a lot of people need help finding advisors. I know some students, they come, but they don't really know how to communicate that well, so when they do talk to professors they put themselves in a situation where they are easily waved off or pacified. Other students, they don't really know what graduate school is, what it's about. Some students have trouble teaching. We do have the workshops. They have trouble writing. The workshops aren't specific as to what we might need. I attended a session for undergraduates to learn about graduate school. I think it was put on by the Graduate School actually. It was during the fall semester. Every week there was pizza. I just remember that the advice there was very, very general and it didn't help many students specifically. They brought in some people who had graduate degrees but their advice, I think, was a little outdated, not very super helpful, and way, way too general. I think really, really optimistic. And I feel once students actually get there, they are like, oh I was promised funding, or I was promised that this person or professor would take me right away. I just feel like listening to that advice was really poor. Just giving students more knowledge about how to get through things so that when they start they are not completely lost. They don't waste time trying to get up to date.

I feel also like we have a PRO day. So you start as an undergraduate and you have a PRO day. You sign up for classes. You get somebody to steer that these are the classes you should take. You don't want to take those and you shouldn't do that. So somebody is walking you through that. You also have Orientation Week. There is a whole week as an undergrad to kind of get adjusted to the school. You get to Grad School and there is nothing. There is no way to kind of get adjusted. If you have questions who do you go to? If you don't know, you have no idea. I was kind of lucky I went here as

an undergrad. I knew a bunch of people already. I already knew the department secretaries. I knew a bunch of the professors. But if I was new here I would be totally toast especially since I am not really extroverted in that sense. So going to talk to people would be hard for me. On top of that, there aren't a lot of easy ways to meet people. I know pretty much everybody in my department because I have to work with them, but that's it. I don't really know a lot of people outside of my department. I know you because we are in the same department, and I know you from other reasons, but everyone else here I have never seen before. I feel it's a shame that there's not some sort of social thing to kind of interact with people who might be having the same difficulties we are. To say, hey I had this problem and this is how I solved it. There is no social outlet for students either.

When I first started I said that one of my biggest issues was the transition from getting an acceptance letter to actually getting to school. There is no orientation, no anything, and I was emailing the head of the department for a long time asking about when I should come, who should I talk to? I didn't receive an email for like almost two months. And then they just told me to show up on this date. I showed up and then they helped us get started with classes and signing up and that was it. I felt really lost and then I talked to the international students and they had their own orientation but I don't really think it was that helpful for them either. I went back and forth talking to the Graduate School asking them for some assistance. They were really helpful and they would kind of take my comments but asking for advice from them wasn't as specific as I wanted. It was very general. One of my counselors said, in our department this is what we did, but it was Mechanical so it wasn't really geared towards me or what I should do going forward. I just felt really lost and I really wasn't sure about what I should be doing. It took me about six months to get the hang of it. I had done a lot of research as an undergraduate so I kind of knew how graduate school setting worked. Knowing that though, I can see how a lot of people get lost, so I try my best to help incoming graduate students. Give them advice about which professors to talk to or what classes to take. I think it is really lacking, I shouldn't say the general Graduate School, but I think each program should set something up.

Apart from academics I have a suggestion. For many of us Missouri S&T is our main thing, so we don't have any other recreational activity here. Most of the international studies cannot afford a car. So whenever we need to go to places, like St. Louis, we make a post in Facebook who has a good car and who would take some rides. We make a post there and that guy charges \$90 to reach St. Louis. It's pretty high.

I think he haggles with students because some students they will agree on \$30 and then they get in the car and then he says \$40. But then I can see how he is haggling better with other students. I've never heard \$90 before, I don't know what that's about.

That's the person who charges \$90.

My friends said they were like paying \$30 or \$40.

I don't want to tell his name here. I can tell you in person. But as an international student we don't have any recreation. We need some rest. Apart from academics I never get a chance to go to places in the US after coming here. I never went to places. There must be some cheaper options, arranged by the university, to reach places. Like to St. Louis, a monthly ride or something.

Hard to hear.....

I would be happier with regular trips to St. Louis. And then we can go anywhere there. Or some regular rides There must be some medium which is cheaper to international students, because

trying to find some transport from Rolla to anywhere is very difficult. There's not even a train. We can't go to places as we wish. I think it would be good if something is there.

I think that's a good idea. I was looking at this university in New York and they are kind of like us, in the middle of nowhere like about two hours from big cities. They had a shuttle about every month that would be free for students and they take them to these places, whether they had to go to the airport or to see the city. And then there was a schedule to take them back. I think that's really good. My friend just took a small vacation and instead of trying to find people to take him back or the ride share that you said, it would be too expensive. I had to go pick him up last night at 11:00 and we didn't get back until 1:00. I only asked for him to pay for gas, \$20.

I know it is a huge money for international students. Everyone has a car in the US. One way is \$90. One thing to look into is Greyhound. Greyhound does pick up at the gas station. They are not very reliable though. Sometimes you ride the bus and you don't know who is on it.

Once I booked a bus and it was supposed to come at 9:00 pm and it arrived at 1:00 am. How can I stand there for four hours? And one other situation is that I booked the bus and the bus came at 9:00 pm but they told me they didn't have a seat. I paid for it on the internet, so that is not a reliable source of transportation in Rolla. There are a lot of international students that are paying. I paid for the first semester like \$11,000 or \$12,000 and the second semester \$12,000, it is pretty high fee and I am getting a huge loan back in my country. So I think it would be good if there was some sort of transport medium.

I'm from St. Louis and I didn't have a car my first three years here. And that's exactly it, it's hard to get a ride. If I really needed to get home I would have to ask my mom to come get me and bring me back, because finding a ride on line is a bit questionable.

I was just wondering because S&T is a big university and one of the best ranked universities but there is no transport to reach places. This is a bit disappointing actually. Rolla is not a place like any other city. You have a lot like in many cities, but it is only the academics you can do here.

Can you tell us more about the proposal? We took some surveys and we sent out emails but the questions are geared towards that necessarily.

What do you mean the proposals?

Graduate School funding, or at least the PhD waiver.

I don't know anything about that. I work in the alumni office.

Let's come back to that. I have one more question, OK?

We are wanting to evaluate the services we provide to the graduate students and you guys have provided us with a lot of great feedback. I know the committee is going to be really excited to dig into your comments. Is there anything I missed? Is there anything you came here to say but haven't had the chance?

If your paper has been accepted at a conference the student is expected to pay for registering for the conference and pay for travel. Is there any way the department can help pay for this? *Very hard to hear*.....

I think the biggest help for grad students would be to guarantee a half-time appointment

______ even for a fixed number of years or a limited number of years. That is a huge problem for a lot of students coming here they can't guarantee funding whether you're from the US or not. If

you lose your funding you are really stuck and you have wasted a lot of time, a lot of travel...... hard to hear. It's crazy to try and come to a place without that kind of guarantee of job that you might lose and time. There is no guarantee. It's a lot of stress. I think the biggest service the school could provide to graduate students would be to guarantee half-time appointments pay and that does not include money for your materials, money for your research, and money for your use of the equipment. Just to pay for your rent and buy your groceries? My roommate did his undergraduate here and then he ended up leaving at the end of this semester because he had no funding. His advisor had been here for only three years and although he had some funding, his lab grew fast enough that he couldn't support the number of students who wanted to join. So it wouldn't be just helpful to students to have some funding but also to advisors. Advisors would be a little more willing to take somebody on if they didn't have to find funding the day they walked in and said I would like to work on this research project. It would be helpful to them too, so they can then say, OK, I'll take you on and in the mean time we will look for funding for your project. That would be a lot of help I think on both sides. I know I have heard from quite a few faculty members that they would like to see funding for students so then they could know what classes to offer. Several faculty have said that they would offer a class I would like to take if they knew enough students would take the class. They don't know because students won't sign up until the beginning of the next semester because they don't have to pay the fees until then. They can save a little bit of money until the next semester. It's because they don't have funding right then. Numerous faculty have told me that, senior faculty. It would be helpful from both sides.

I think more transparency would help a lot just with communication. I came to this school and I still have second thoughts because I don't know what is going on with the money situation at times and I had other offers from schools with funding options. But I came here because they have Petroleum Engineering Program and that is where I wanted to go. But there are other programs where I can still go into the gas industry in chemical or geology that are offering funding. So just being clear with the funding situation and what's possible and what isn't because for a long time I was hearing maybe you can find this, maybe you can find that. But it is never a guarantee. It's even humiliating sometimes going to talk to professors, having them say "no" or dragging along with "maybe". I had a professor who was looking for someone who was more practiced in computer science. So for almost a month I was sitting in on these classes and he barely took the time to notice me or anything despite the effort I was giving. It took me a long time to find the advisor that I have now and I am really happy where I am, but it was a really frustrating experience knowing where I was going with the money or if there was any available for me. It's not clear what kind of funding is available, whether it be for international or American students because I was hearing about these scholarships that people were getting that they didn't apply for. And I would ask professors about it and they were just like it's reserved for PhD students, but it was being given out to Master's students. I talked to the Graduate School, I talked to the Financial Aid Office and they were all telling me like they are looking for people to give it out to. I always ended up getting a stop from these professors like there is nothing there or no, we don't want to give it to anyone else. So, it's just not clear what is going on with the money situation and it's always a maybe and then coming here and finding an advisor is really tough. I think it would be a lot easier if the schools could help us have a more sure answer as opposed to "possibly if you work hard enough" because even working hard enough isn't enough for them sometimes.

I don't want to take away from that issue but I have something kind of different. The website is a pain in the butt to use. I know we updated it but I can't find any ______ classes? Anymore. I only use the search bar because I don't even know where to click to find things. It's not updated so a lot of the stuff, like professors or if you are looking for advisors you wouldn't be able to find information about them. I can't find anything and I used to be able to navigate the other one pretty well. I wouldn't say that I knew where anything was but I cannot find anything on there anymore. I don't even know, like I have to know exactly what I'm looking for, type it in the search bar and it will show up when I search. The sites aren't even up to date regarding research and what is available and some of the links that I click on that I am looking for at I'm looking for are just dead links. I try to find them but they are just not on the website anymore. It is not easy to navigate.

One thing that I have noticed, which is especially true for the Indian and Chinese professors is they tend to have more than eight PhD students at one given time in their research group. At the same time they don't have enough money to pay them decently. Not even half-way decent. I have seen where one student is given half-time funding and then off the record he is told you will give another student half your money. I don't understand, if you don't have research funds, why is it that you like to hire so many students? Is that just that you want

Also they boast they have graduated this many students. I am so this, this and this.

If this thing is done by a new professor who wants to add things to his resume or he wants to get on Tenure-Track real quick, I understand. But sadly this thing is done by full professors, curator's professors. I don't know why. Then they don't have time for all of their PhD students and students don't have funding and they don't even have clear research objectives.

They think once a student finishes a paper, they give it another.

It's not just international students. I have a few American friends who have had the exact same thing happen to them. One he didn't finish this semester for that reason, his funding was pulled. It was given to someone else.

The reason we emphasize international students is because international students cannot even work outside the university somewhere. It is illegal for us. We can only work at the school and on top of that if the advisor writes something wrong about you or says he is firing you. It is not that you just lose your appointment, but you lose your visa as well. So for international student the ______ is a lot worse.

Any final thoughts?

I just think, like what they brought about having too many students, that's been a frustrating thing for me because I found a professor and he had way too many students. I chose not to enter his group. I wouldn't have had the time to contact him to speak about things or to ask questions. At the same time it is frustrating because some professors accept too few students. I guess that's what we are arguing for. Not having too many students but I feel like it's hard because this professor is refusing to take anyone else. This one has too many.

If a professor is having a lot of research projects and a lot of funding, then OK, there is no harm in taking all the students as you need. You should hire what is required. Not because just for the sake of hiring. Like in my case we are 12 students in a research group, under one professor. In meetings I have heard my professor saying this a lot of times, Sir, I am not able to do this thing, I have a problem

and what I get from him is I am paying you to do this. I don't care how you get this done but I want to see this done next week. Either I _____ my results. Or I do something else, but I'm not getting any help from my boss because he gave me one straight answer. I'm paying you, you have to do this. I don't care how you get this thing done.

I feel like we are allowing too many students into school with not enough positions available. I see it as a money thing. We are letting all these students in who pay tuition. However long it takes them or however they find their way is up to them.

Hard to understand all of her statement.

I need to say something. Because of the tuition sometimes and according to our salary we cannot pay the amount they are asking because we have to pay the rent and utilities too. So even if you are late to pay it after the due date, they will charge us interest and the late payment. So at the end of the semester it will cost around \$200. So for me last semester I paid close to \$5,000 then I had to pay more \$200. It is actually really a difficult position because day by day the expenses are also increasing. They are not decreasing. So it is really difficult for us to live here. We have to pay the rent, utilities, we need to buy the food.

The most frustrating thing is that I read in the newspaper that Missouri Senate that they had passed a bill giving billions of dollars to the system. So they don't have to hike the fee for a couple of years I believe. Then after two weeks we ______ on the university website that the Senate of Missouri S&T has agreed to a 5% hike in the fee. At the same time the fee has been hiking all the time. When I came here the first semester I paid \$3500 including insurance and everything back in 2012.

_____ I pay in-state. Today, for my in-state I pay around \$4600, but the fellowships has been the same. Insurance has been going up. Everything has been going up. So the situation is pretty frustrating.

but I wanted to talk about it here. Why don't we have medical insurance for graduate students? I saw there was an option for international students because they have to have it. But as an American student I don't have insurance at all. I tried to sign up for insurance but they were just unaffordable for me. Taking what the University gives me for funding, all of that would go to my insurance. I don't even have enough to live. I had to sign up for insurance in my home state and that coverage is only available over there and that is for low-income, so I qualify for that. I just found it absurd that we don't have insurance at all? But then we have that clinic but those aren't the services that I necessarily need, like tiny check-ups or affordable medicine.

And the clinic is only available during business hours. So if you get sick on the weekend you're hosed. So if I hurt my leg or something then I have to go to the hospital and I don't have insurance. I mean my insurance might cover very specific emergencies for out-of-state, but I am only covered in California so if I need anything done I have to go home and get everything taken care of there. I just thought it was really absurd they are making international students pay for the insurance and it isn't even been done at all for American students. It isn't even considered. I don't know how the rates are for you guys but.

There was discussion among the international students regarding insurance. I think they said it was between 800-1000 per semester. Even we are sick we have to pay the bill ourselves. It's a big amount. That's why I wanted to ask about what we are going on because we took a survey and one of the questions was Are you receiving enough to live each month? Definitely No. My funding is like \$1000 a

month. That's nothing. And you guys have insurance? How can you live off of \$200 a month? And that's mandatory insurance that you are supposed to pay for.

Adrienne, do you want to comment at all?

Sure the school does offer insurance ______. It is offered to domestic students as well as international students. It is required of international students because of the citizenship thing. I don't know a whole lot about it.

It's the same throughout all four of the system schools. Student Affairs can give you some more information.

The reply I've been getting is "I don't know a lot about it". _____ I go to the website and I get to the website and it isn't helpful at all. I don't like any of the options available. They don't really apply to my needs.

I know at some universities students are paying less than \$500 for insurance. For us it is for one semester it is close to \$1000. It's mandatory insurance for us.

Apart from that, I have a friend at Mizzou and what I have learned from him is that they are getting a lot more benefits from their insurance policy than what we at S&T are getting. We are in the same university system I don't know why we have this difference in insurance.

I looked into the options. About a year and a half ago I aged out of my parent's plan which I had been on for a while. So I looked up to see what my options were. With the cost of the insurance plans that are offered by the school and the benefits they offered it just made no sense

_______. Affordable care act is the only reason I can afford insurance right now. It's helpful but it's not complete. I was looking up insurance. I want to go to the eye doctor. I wear glasses so every once in a while I can feel that my prescription needs to be changed. Or if something happened to me and I could at least get a checkup. It's not available with the school insurance like dental _______. You get all these crazy costs. I don't need an x-ray every year and xrays are always covered. The basic things that I do every year I end up paying out of pocket and it is about equal to what I would pay for a month of insurance and that insurance isn't covering anything.

Other thoughts. Things you wanted to say?

Hard to hear.

Subcommittee #2: Transfer Student Success and Engagement

Charge:

Identify and analyze existing data on transfer student success and engagement. Examine current programs, policies, and processes that can or do contribute to transfer student success and engagement. Recommend relevant changes.

Report Summary:

The committee reviewed existing data and reports, including the annual new transfer student survey, the annual student success data and summary report, and a report on S&T graduation rates for community college transfer students. Some new analysis of that data raised some questions about transfer GPA, cumulative GPA, and possible trends and implications. This review highlighted the need for a thorough data analysis and reporting schedule to better measure and understand transfer student success. In the new transfer student survey, respondents expressed strong interest in engaging in a variety of activities while at S&T. No measures currently exist to measure actual student engagement, suggesting a need for a transfer student engagement survey. An examination of current admission and scholarship criteria and related practices suggested a need for further study of the possible connections between transfer student success, transfer GPA, number of credit hours, and other possible factors. A discussion related to practices and policies for students who fall into "borderline" GPA ranges led to a recommendation for a "Pathways Program" that would assist and support students who are admissible to the university but who are identified as "under-prepared." A review of "transition" processes and programs for new transfer students identified some opportunities to improve the experience of new transfer students to promote success and engagement. These include a review of the range of fees new transfers typically pay, advising and enrollment processes, and opportunities for experiential learning. The committee's recommended actions are categorized and prioritized in the following section.

Recommendations

Recommendation 1: Data Analysis and Reporting

Create an annual or biannual report on transfer students' retention and success, including predictive value of entering GPA on success, success in key courses, and graduation data. Do a comprehensive evaluation by key attributes including transfer sending school, total credit hours and GPA at enrollment, major, gender, and ethnicity. This evaluation would provide key information for the campus and our transfer partner schools, and could be used to determine whether current transfer admission policy is appropriate. Cost estimate: IR Staffing costs?

Timeline: Complete by August 2017





Recommendation 3: Facilitate Engagement for Transfer Students

Use existing programs, such as Transfer Advising Day, to enhance exposure of new transfer students to experiential learning expectations and opportunities; PRO Leaders who can promote Transfer Transitions attendance; COER services; the advantages of living in University housing; and availability of student organizations.

Cost Estimate: \$0 Timeline: January – August 2017 Advising Days MISSOURI



Appendix I Transfer data summaries used for analysis

Transfer GPA Analysis

Based on analysis of fall 2015 enrolled transfer student data, we see that more than 90% of all new and enrolled transfer students have a 2.5 or higher GPA. More than half are at or above the 3.25 GPA level. Approximately 2% of transfers appear to be below the 2.0 level. We believe this reflects students who have pending grade replacement courses. Our process does not allow for the admission of students with GPA below 2.0. A transcript review of these students should be conducted to understand this group better.



GPA Expectations from 2015 New Transfer Student Survey Responses (Full Survey in Appendix 3)



Transfer GPA of 2015 Transfer Survey Respondents

Although many students express what initially seems to be an unrealistic expectation that their GPA will increase at Missouri S&T, they may have a basis for this expectation. When asked about average hours spent working or studying at their transfer school and hours they expect to spend with those same activities after transferring to Missouri S&T, students report planning to work less and study more at Missouri S&T than they did at their transfer school. Leveraging these positive student expectations to promote transfer student success and engagement may significantly benefit students.



Work Hours of 2015 Transfer Survey Respondents

Study Hours of 2015 Transfer Survey Respondents

After transferring to Missouri

S&T, I expect my GPA to...

Change in GPA after Transfer

The data below looks at average transfer GPA and average cumulative GPA (after 1 or more semesters at S&T) for each GPA range. The transfer GPA is calculated over all transferred courses. The cumulative GPA was as of 4th week of the Fall 2015 semester. Depending on when the student transferred, this could have been 1, 2, 3, or more semesters after transfer. We see that cumulative GPA for almost all categories is within .30 GPA points. The notable exception is the lowest GPA range. Surprisingly, the data seems to illustrate a possible trend. The numbers in the *GPA Change* column become increasingly negative above the 3.0 range and increasingly positive below the 3.0 range. It is possible that students at the 3.0+ transfer GPA levels may have some similarities to our high-ability first-time college freshmen who struggle initially, while students below those GPA levels may have already stumbled and adjusted. More study is needed to understand the implications of this data.

Fall 2015		All Enrolle	ed Transfers	
GPA Distribution	Students	Ave Tr GPA	Ave CGPA	GPA Change
3.75 - 4.0	287	3.91	3.74	-0.17
3.50 - 3.74	222	3.61	3.46	-0.15
3.25 - 3.49	220	3.37	3.27	-0.10
3.0 - 3.24	236	3.11	3.03	-0.08
2.75 - 2.99	190	2.87	2.89	0.02
2.50 - 2.74	123	2.63	2.70	0.07
2.25 - 2.49	71	2.38	2.56	0.18
2.0 - 2.24	19	2.13	2.41	0.28
0-1.99	21	1.63	2.43	0.80
Total	1389			



New Transfer Student Interest in Engagement

As shown below, student responses to the new transfer student survey consistently illustrate strong interest in engagement. (Appendix 2) Students regularly express in study groups, undergraduate research, design teams, getting to know professors, and other positive forms of engagement. However, there are some possible barriers to transfer student engagement. Students regularly express in study groups, undergraduate research, design teams, getting to know professors, and other positive forms of engagement.



- Living off campus As previously discussed, only 20-25% of new transfers live in university housing. Since research shows that living on campus contributes to student success and engagement, this presents an additional challenge to transfer students.
- Department Integration Students have indicated, anecdotally, that they do not want to be thought of as transfer students once they are here on campus. They want to connect with their academic department of major, other students, professional organizations, faculty members. Programs geared at increasing this integration may be beneficial to students.
- Design/Research After study groups, design teams and undergraduate research ranked highest among respondents.
- COER/Miner Jobs Though not included in the survey response options, this aspect of experiential learning is presumed to be critical to transfer students as it is to all S&T students.

Admission Criteria and Student Success

The following minimal requirements are established for general admission of transfer students. They do not include more stringent requirements that may be established by the faculties of the individual campuses or the requirements of specific degree programs (most engineering degree programs require

a higher GPA for admission). It is the responsibility of the transfer student to check with Missouri S&T transfer personnel regarding admission requirements.

A transfer student who has completed fewer than 24 semester hours of college-level credits must submit high school transcripts and one appropriate test score (ACT or SAT) in addition to the regular application documents for transfer students. These students will be evaluated for admission based on a combination of their high school records, test scores, and college-level GPA.

An applicant who has completed 24 or more semester hours of college-level work is eligible for admission if he or she is in good standing and has attained an overall grade point average of at least 2.0 (4.0 system) in all college-level courses attempted at previous institutions. (Each campus faculty governing group shall review the performance of transfer students and may recommend at that time a measure of performance which would indicate a reasonable chance of making a 2.0 grade point average at the university.) A 2.0 GPA does not guarantee admission to specific degree programs.

An applicant who does not meet these standards may apply by submitting to the admissions committee such data as the committee considers appropriate. The committee or the director of admissions acting under its direction may determine who shall be admitted.

New Engineering Transfer	s 2009	% of Total Engineering	2010	% of Total Engineering	2011	% of Total Engineering	2012	% of Total Engineering	2013	% of Total Engineering	2014	% of Total Engineering	2015	% of Total Engineering
Freshman Engineerin	g 77	33%	84	29%	65	27%	68	29%	81	27%	87	26%	84	23%
Engineering Dep	t 154	67%	209	71%	176	73%	165	71%	224	73%	248	74%	279	77%
Tota	231	100%	293	100%	241	100%	233	100%	305	100%	335	100%	363	100%

• The chart below shows totals and percentages of new admitted engineering transfer students into the freshman engineering program and engineering departments.

Student Support/Processes

- Transfer Advising Day 100% of all new transfers attend an advising day or individual appointment. Positive interactions with advisors, the availability of required classes, success of math placement testing, and other processes are all critical aspects of a student's first official steps as a new S&T student.
- Faculty and Advisors Every academic department designates one or more transfer advisors who work with new transfer students.
- Transfer Transitions Orientation 25% of new transfers attend orientation
- Veterans Student Success Center A high percentage of veteran students are transfer students
- Student Success Center Transfer students have the same access to the SSS as the general student population. SSS does not track student traffic for specific groups.
- Registrar The registrar's transfer credit staff processes and records all transfer credits. Timeliness, accuracy, and responsiveness to students are critical functions. The challenges presented by growing workload involved in international transfer credit processes has stretched resources to critical levels.
- Student Financial Assistance
- Student Diversity Programs

Registration/Waitlist/Capacity Issues

The manual, pencil-and-paper schedule planning and registration process used at transfer advising day is cumbersome and inefficient, especially as classes begin to fill. Furthermore, class capacity issues can have an adverse effect on transfers. Students experience frustration and confusion trying to build a schedule with limited course availability. Navigating the "waitlisting" process creates anxiety for new transfers who are unfamiliar with the campus and faculty members. Although the class capacity discussion is outside the scope of this subcommittee, it does impact transfer students during the transition to S&T.

COHORT YEAR	COHORT	EVER GRAD	1YR	%	2YR	%	3YR	%	4YR	%	5YR	%	6YR	%
FS2001	252	178	1	0.40	47	18.65	121	48.02	155	61.51	165	65.48	172	68.25
FS2002	264	179	2	0.76	60	22.73	124	46.97	151	57.20	165	62.50	172	65.15
FS2003	320	208	8	2.50	75	23.44	144	45.00	184	57.50	196	61.25	203	63.44
FS2004	308	213	6	1.95	70	22.73	148	48.05	191	62.01	202	65.58	211	68.51
FS2005	312	207	4	1.28	80	25.64	152	48.72	186	59.62	204	65.38	207	66.35
FS2006	263	190	3	1.14	73	27.76	144	54.75	185	70.34	190	72.24		
FS2007	276	186	5	1.81	81	29.35	167	60.51	186	67.39				
FS2008	286	130	0	0.00	69	24.13	130	45.45						
FS2009	337	35	2	0.59	35	10.39								
FS2010	388	2	2	0.52										

TRANSFER GRADUATION

TRANSFER GRADUATION (ENGINEERING ONLY)

COHORT YEAR	COHORT	EVER GRAD	1YR	%	2YR	%	3YR	%	4YR	96	5YR	%	6YR	% 7
FS2001	125	100	0	0.00	30	33.77	78	62.40	96	76.80	99	79.20	99	79.20
FS2002	124	97	0	0.00	36	29.03	79	63.71	89	71.77	94	75.81	96	77.42
FS2003	152	122	1	0.66	45	29.61	91	59.87	111	73.03	118	77.63	121	79.61
FS2004	175	149	1	0.57	47	26.86	112	64.00	138	78.86	145	82.86	148	84.57
FS2005	183	147	3	1.64	59	32.24	116	63.39	139	75.96	147	80.33	147	80.33
FS2006	164	133	2	1.22	61	37.20	106	64.63	132	80.49	133	81.10		
FS2007	192	144	1	0.52	56	29.17	129	67.19	144	75.00				
FS2008	190	102	0	0.00	52	27.37	102	53.68						
FS2009	223	27	2	0.90	27	12.11								
FS2010	244	1	1	0.41										

TRANSFER GRADUATION (ENGINEERING ONLY) Junior status and Previous insitution - 2YR school

COHORT YEAR	COHORT	EVER GRAD	1YR	%	2YR	%	3YR	%	4YR	%	5YR	%	6YR	%
FS2001	77	66	0	0.00	26	33.77	58	75.32	65	84.42	66	85.71	66	85.71
FS2002	78	66	0	0.00	28	35.90	58	74.36	64	82.05	65	83.33	66	84.62
FS2003	100	85	0	0.00	34	34.00	71	71.00	82	82.00	85	85.00	85	85.00
FS2004	131	116	1	0.76	44	33.59	89	67.94	109	83.21	113	86.26	116	88.55
FS2005	119	105	1	0.84	48	40.34	90	75.63	101	84.87	105	88.24	105	88.24
FS2006	115	97	2	1.74	55	47.83	89	77.39	97	84.35	97	84.35		
FS2007	133	109	1	0.75	53	39.85	103	77.44	109	81.95				
FS2008	133	90	0	0.00	52	39.10	90	67.67						
FS2009	155	27	2	1.29	27	17.42								
FS2010	179	2	2	1.12										

Engineering Department Criteria for Entry from Freshman Engineering

The Catalog states that students may transfer from Freshman Engineering to departments with up to two of the common freshman year courses not yet completed, provided departments will accept them. Departments have developed different conditions for student admissions from Freshman Engineering. They are summarized below.

AEROSPACE ENGINEERING: Complete all FEP courses but I H/SS course

a. \geq 2.50 cumulative & UM cumulative GPA $$b_{\star}\geq$ 2.25 accumulative GPA for Math and Science**

ARCHITECTURAL ENG: Complete all but 2 FEP courses: can be Physics 1135 and 1 H/SS course

a. \geq 2.50 cumulative & UM cumulative GPA

CERAMIC ENGINEERING: Complete all but any 2 FEP courses, other than mathematics. a. ≥ 2.0 cumulative GPA

CHEMICAL ENGINEERING: Complete all but any 2 FEP courses other than mathematics. a. ≥ 2.25 cumulative GPA

CIVIL ENGINEERING: Complete all but two FEP courses: can be Physics 1135 and 1 H/SS course a. ≥ 2.50 cumulative and UM cumulative GPA

COMPUTER ENGINEERING: Complete all FEP courses but 1 H/SS course a. 2.25 cumulative GPA

ELECTRICAL ENGINEERING: Complete all FEP courses but 1 H/SS course a. 2.25 cumulative GPA

ENGINEERING MANAGEMENT: Complete all FEP courses but I H/SS course.

a. \geq 2.25 cumulative GPA b. \geq 2.25 cumulative Math, Science and Engineering GPA

c. Must have a C or better in Math 1214, 1215, Chem 1310 and Physics 1135

ENVIRONMENTAL ENG: Complete all but two FEP courses: can be Physics 1135 and 1 H/SS course

a. \geq 2.0 cumulative and UM cumulative GPA

GEOLOGICAL ENGINEERING: Complete all but any 2 FEP courses **other than mathematics**. a. 2.0 cumulative GPA

MECHANICAL ENGINEERING: Complete all FEP courses but 1 H/SS course.

a. \geq 2.50 cumulative and UM cumulative GPA **b.** \geq 2.25 accumulative GPA for Math and Science **

METALLURGICAL ENGINEERING: Complete all but any 2 FEP courses.

a. 2.0 cumulative GPA

MINING ENGINEERING: Complete all but any 2 FEP courses.

a. 2.0 cumulative GPA

NUCLEAR ENGINEERING: Complete all but any 2 FEP courses.

a. 2.0 cumulative GPA

PETROLEUM ENGINEERING: Complete all but 2 FEP courses other than mathematics

a. 2.80 cumulative GPA

Student <u>must</u> have a C or better in Physics 1135 in order to graduate. Computer & Electrical Eng add "Also, students may not enroll in other courses that use these courses as prerequisites until the minimum grade of "C" is attained."

**In Mech and Aero Eng the Math and Science GPA includes all M/S courses completed at time of application. It includes all grades for any repeated courses, with no GPA adjustment for the grade replacement policy.

Transfer Merit Scholarships as Published in SFA Webpage

Merit-based Scholarships for Transfer Students

Amounts per academic year

Missouri S&T's tradition of welcoming and supporting transfer students from around the country includes merit-based scholarships. Application processes are detailed online <u>here</u>.

GPA TO			GPA TO	
QUALIFY	MISSOURI RESIDENTS	NON-MISSOURI RESIDENTS	RENEW	
2.75 - 2.99	\$500	\$1,000	NO RENEWAL	
3.00 - 3.24	\$1,000	\$2,500	3.00	
3.25 - 3.49	\$1,500	\$3,000	3.25	
3.50 - 4.00	\$2,500	\$4,500	3.25	

PLEASE NOTE:

All renewable scholarships are available for a total of four semesters. Non-renewable scholarships are available for a full academic year (two semesters). All scholarships may be initiated at either the fall or spring semester. Renewal will be based on your cumulative GPA at Missouri S&T after two full semesters, including GPA on all credit transferred to Missouri S&T.

These scholarships available for U.S. citizens, permanent residents and students pursuing their 1st bachelor's degree. International students may contact the <u>Admissions Office</u> regarding scholarships.

Eligibility criteria and application process are as follows:

- Admitted transfer students who **apply for admission** are automatically considered for scholarships (no separate scholarship application required) if they meet application deadlines. For example, those students who are enrolling for a fall semester, we will begin priority scholarship awarding as of February 1. We will continue scholarship awarding for all eligible students who submit their admission application by May 1 (final deadline). For students who plan to enroll in a spring semester, priority scholarship awarding got admission application by December 1 (final deadline). Applicants are encouraged to have their admission application and transcripts from all previously attended institutions to the Admissions office by these final deadlines to insure receipt of scholarship.
- Transfer students must have completed 24, college-level, graded, transferrable credits from a U.S. institution and be pursuing their 1st bachelor's degree upon enrollment at Missouri S&T to be considered for scholarships. Application may be made prior to completing 24 hours but receipt of the award will require a transcript with 24 hours of credit with the appropriate grade point average (GPA).
- Renewal will be based on a cumulative GPA after two semesters at Missouri S&T. Cumulative GPA will include courses transferred in and those taken at Missouri S&T.
- The scholarship amounts below reflect an annual award with one-half available for the fall semester and one-half for the spring semester (scholarships are not available for summer sessions).

Appendix 2 Transfer Student Enrollment Summary

2015 New Transfer Students

- 542 in 2015 (112 Spring, 430 Fall)
- 8% Under-represented minority
- 14% International (on-campus)

2015 S&T Transfer Students



- 119 Different Institutions
- 38 domestic partners
- 12 international partners
- 69 non-partners
- All Enrolled Transfers
- 269 Different Institutions
 55 domestic partners
- 15 international partners
- 199 non-partners

26,354

total transfer credits in Fall 2015 (up from 23,745)



sfer New 2015 Transfers by GPA



2015 S&T Transfer Students

All Currently Enrolled Transfers

- 1678 Enrolled 24% of on-campus undergrads (1545 undergrad, 133 grad)
- 62 average transfer credits
- 3.25 average transfer GPA
- 3.21 average Cumulative GPA after 1 or more S&T semesters
- 8% under-represented minority 8% campus wide
- 14% International (main campus) 16% campus wide

Enrolled Students by School

276 different institutions, 59 domestic partners

2015 S&T Transfer Students All Currently Enrolled Transfers



Native American 1% Hispanic 3% Black 4% Asian 2% Pacific Islander <1%</p> White 63% International 14% Non specified 9%

Female Enrollment



Transfer Engineering Enrollment On-campus, undergraduates



2015 S&T Transfer Students New Enrolled Transfers



2015 New Transfer Students



Biological Sciences Information Science and

Technology Psychology

Business Physics

Multidisciplinary Studies

Mathematics

Chemistry

English Economics

History

2015 New Transfer Students

363 Total College of Engineering and Computing



2015 S&T Transfer Students 313 Engineering New Enrolled Transfers Mechanical Engineering Electrical Engineering 6 2 0 0 Mining Engineering Chemical Engineering Petroleum Engineering Civil Engineering Aerospace Engineering Computer Engineering Environmental Engineering Engineering Management Nuclear Engineering Geological Engineering

2015 S&T Transfer Students

1059 Engineering Currently Enrolled Transfers



2015 New Transfer Students

76 Total STEM, Non-Engineering



313 Total Engineering

Geology and Geophysics

Architectural Engineering Metallurgical Engineering Undecided Engineering

Ceramic Engineering

- Biological Sciences
- IST
- Math
- Chemistry
- Physics

2015 New Transfer Students

40 Total Business, Humanities, Social Sciences



Appendix 3 New Transfer Student Survey

What best describes your transfer school? 0%_____2% 2% From how many Community College institutions did you transfer credit? 4-Year Public – One (54%) 4-Year Private - Two (27%) - 3+ (18%) 21% Vocational/Technical Other Two or more

Transfer School

Academic Preparation



Getting Ready to Transfer

Before transferring to Missouri S&T I . . .



Information About Missouri S&T

Before transferring, I received information from the following sources

- » My transfer school advisor (38%)
 » Printed information at my transfer school (23%)
- Website and emails from Missouri S&T (64%) Mail (39%)
- ю
- Visits to my transfer school by Missouri S&T representatives/faculty (39%) э
- Friends, family, and/or fellow students (52%) ъ
- » Other (13%)

- Degree (requirements (77%)
 Transfer scholarship information (70%)
 Admission applications and procedures (79%)
- » Housing in Rolla (48%)
 » Other (14%)

Coordinated Transfer Program

My transfer school has a coordinated transfer program for students transferring to Missouri S&T: - Yes (55%) - No (23%) - Do not know (20%) 1 had access to a transfer guide to help me select classes at my transfer school: - Yes (66%) - No (20%) - No (20%) - Do not know (14%) My transfer school advisor was able to advise me on classes that would transfer to Missouri S&T: - Yes (46%) - No (23%) - Do not know (12%) I am satisfied with the advising services I received at my transfer school: - Yes (45%) - No (23%) -



Credits Completed Before Transfer



Cumulative GPA of Transfer Credits





After transferring to Missouri S&T, I expect my GPA to...

On average, how many hours per week did you work while at your transfer school? ...expect to work at Missouri S&T?



Number of miles round-trip you commuted while attending your transfer school? ...plan to commute at Missouri S&T?



Number of hours per week you studied outside of class at transfer school? ...expect to study at Missouri S&T?





Satisfaction with Transition



How satisfied were you with...?



Transferring Credit





Satisfied with Applying Transfer Credits



Agree: 34% Disagree: 43% Does not apply/Did Not Access: 21%



Transferring Credit Reasons given for credits not transferring Did you have to repeat course at Missouri S&T Limit on the total number or credits I can transfer (4%) » Course grade was not high enough (3%) Yes: 21%

No: 68% Do not la

Yes: 26%

No: 56%

Do not la 18%

Did you have to take extra courses at Missouri S&T

- Missouri S&T doesn't accept any transfers of credits from my old institution (1%)
- Missouri S&T doesn't accept career and technical education course for credit (4%)
- » Course not considered to be at college level (3%)
- Missouri S&T requires the course be taken on canpus (3%)
- » I do not know why my credits did not transfer (23%)
- » Other (41%)
- » Did not respond (20%)

Orientation & Advising

How were you advised at Missouri S&T?

- 79% Transfer Advising Day Event
 16% Individual Advising Appointment

- 18% Individual Advance
 0% Email
 0% Phone
 4% Other
 2% Did not respond

Transfer Advising Day was a worthwhile event:



Activities You Plan to Participate In at Missouri S&T



Subcommittee #3: Advising Center Models and Best Practices

Charge: Evaluation of Advisor Center Models and their Best Practices.

There has been at least three sets of surveys conducted by The National Academic Advising Association (NACADA) In 1983, 2003 and 2011. There are seven delivery models that are recognized as specific structures of academic advising. However there is not a definitive conclusion that one model is the best approach. In most recent 2011 survey only the five models listed below were reported on.

Definitions of Advising Models:

- Self-contained: All advising occurs in a center staffed primarily by professional advisors or counselors; faculty may also advise in the center.
- Faculty Only: All advising is done by a faculty member, usually in the student's academic discipline.
- Shared Supplementary: Professional staff in a center support advisors (usually faculty) by providing resources/training.
- Shared Split: Faculty members provide advising in academic discipline while staff is responsible for a subset of students (e.g., undecided, pre-majors).
- Total Intake: All incoming students are advised in a center; students may be assigned elsewhere later.

Our subcommittee looked at six institutions for samples of their advising best practices. These institutions are:

Truman State University Michigan Tech Missouri State University California Polytechnic State University Colorado School of Mines The University of Wisconsin–Oshkosh

After reviewing these institutions and their practices, it confirmed what was reported in the survey by NACADA. There are many different ways that advising services can be organized on a single campus and that there is not a one fit all model. Each of the organizational models found at the institutional level exists on a smaller scale at the college, campus and departmental levels. Thus more than one model may be employed at an institution. In general, no specific advising model is used at the majority of institutions which indicates a diversity of advising approaches among colleges and universities that share institutional characteristics.

The shared split model is used at 2 out of 5 institutions, the self-contained model is used by nearly 3 out of 10, and the other four models (faculty only, total intake, shared supplementary, and multiple models) are used at fewer than 20% of institutions.

Shared split was either the first or second-most used advising model, and self-contained was among the top three models. The faculty only model was the second-most used model at small institutions, and the total intake model was the third-most used model at medium and large institutions.



Contributors in Choosing a Delivery System

Access/availability to student Priority placed on advising Knowledge of academic discipline Knowledge of student development Need for training Cost to institution Credibility with faculty/staff

Recommendations:

- Develop a higher administrative appointed advisor council(similar to that of University of Missouri-Columbia and Missouri State University) <u>http://provost.missouri.edu/about/committees/advising-</u> <u>council.php</u>
- Provide consistent and efficient training of new academic advisors, as well as ongoing professional development.

- Hiring of at least three more professional advisors, one for the Undergraduate Advising Office and 2 for the Freshman Engineering Office
- Advisor recognition and rewards

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Subcommittee #4: Time to Graduation/Credit Hours

Charge:

Conduct a study, and support with data, potential reasons for higher than minimum credit hour totals at graduation. In addition, determine the time to degree completion under defined categories.

Motivation:

Average credit hours at graduation was discussed as an agenda item of the General Officers meeting on July 8, 2015 For 2013-14 graduating class, the average number of credit hours students graduate with at: Missouri S&T---147 MU---134 UMKC---138 UMSL---141 System Average---137

Credit hour graduation requirements

Bachelor of Arts (BA) and Bachelor of Science (BS) programs at Missouri S&T specify the required and elective courses and set the minimum number of credit hours required for each degree program. BA programs typically require a minimum of 120 credit hours but may be higher. Biology, Business and Management Systems, Chemistry, Economics, English, History, Information Science and Technology, Multidisciplinary Studies, and Philosophy require a minimum of 120 credit hours ranging from 124 – 131 credit hours. Technical Communications requires a minimum of 126 credit hours.

BS programs typically require a minimum of 128 credit hours. However, Geology and Geophysics requires a minimum of 127 credit hours. Mathematics requires a minimum of 128 credit hours, however the minimum increases to 135 credit hours with the secondary education emphasis. All engineering programs require a minimum of 128 credit hours with the exception of Chemical and Petroleum Engineering which require 129 credit hours.

Reasons minimum credit hours graduation requirements may be exceeded

There are a wide variety of known reasons the minimum credit hours for graduation can be exceeded. These reasons cross the entire spectrum, positive, negative and neutral. Positive reasons, or those which might be considered "value-adding" from the student's perspective include obtaining minors, dual majors or second BA/BS degrees. There are two examples that could be considered negative that are actually a very positive outcome. The first is that students change their majors. This means that they are persisting with the university but will subsequently have more credit hours. The second example concerns students that start in a lower math course. Because they are in the lower math course they will have to take more math courses in able to continue through their degree requirements. This may seem negative but in actuality these students have a deeper understanding of the math needed for the engineering degrees. Some students may consider starting in a prerequisite mathematics class or a change of major as a negative due to attitude or perception. Those which might be considered more negative include failing courses or not passing with a required grade, and readmit students who needed to increase their GPA for readmission to the university or program. Neutral reasons may include transferring in courses taken during their high school years, through AP, Dual Enrollment, IB, or CLEP which will not apply to their chosen degree program, and ROTC credit obtained after enrollment. Transfer students may also transfer in credits which do not apply to their chosen program. However for purposes of this study, transfer or TRE students are evaluated separately.

Data used for this analysis

The subcommittee asked the Institutional Research and Assessment office to generate the data set for this analysis. The data includes students who graduated during the 2010 -2011, thru 2014 – 2015 academic years. The data was separated for FTC and TRE students and specific tabulated information was generated. The decision was to produce the information based on 120 credit hours only. (Any future studies should evaluate common credit hours degree requirements rather than all degree programs in this study.) Some additional data was generated for each academic year such as gender and ethnicity. However, no subdivisions using those categories was undertaken in this study. The major categories of data include the following:

- General:
 - Total Number of Graduates; Average Credit Hours; Median Credit Hours; Avg. GPA; Time to Degree (TTD)
- Gender:
 - Number of Male; Number of Female
- Ethnicity:
 - URM Non URM in various categories
- Graduated with 120 credit hours:
 - Number; TTD; Median Credit Hours; Average Credit Hours;
 - Graduated with greater than 120 credit hours:
 - Number; TTD; Median Credit Hours; Average Credit Hours;
- Graduated with greater than 120 Credit Hours with minor(s):
 - Number; TTD; Median Credit Hours; Average Credit Hours;
- Graduated with greater than 120 Credit Hours with dual major(s):
 - Number; TTD; Median Credit Hours; Average Credit Hours;
- Graduated with greater than 120 Credit Hours and changed major(s):

 Number; TTD; Median Credit Hours; Average Credit Hours;
- Graduated with greater than 120 Credit Hours with co-op(s):
 - Number; TTD; Median Credit Hours; Average Credit Hours;
- Graduated with greater than 120 Credit Hours not in other group:
 - Number; TTD; Median Credit Hours; Average Credit Hours;

Data statistics

FTC (2010-2011--- 2014-2015)

Graduate >120 credits: 146.8 Avg, 143.8 median (N = 763 – 943, median range 1, average range 2)

Graduate > 120 credits:

• 93%, TTD 4.56, 142.2 Avg, 138.8 median

Graduate > 120 credits with minor:

- 37%, TTD 4.44, 142.2 Avg, 138.8 median
- Graduate > 120 credits with dual:
 - 14.8%, TTD 4.58, 144.2 Avg, 141.2 median

Graduate > 120 credits dual and minor: 51.8%

Graduate > 120 credits change major:

• 16.4%, TTD 5.0, 145.4 Avg, 143.8 median

Graduate > 120 with co-op:

- 18.4% (increasing), TTD 5.0, 141.4 Avg, 138.8 median
- Graduate > 120 not in other group:
 - 26%, TTD 4.5, 142 Avg, 139 median

TRE (2010 -2011 --- 2014-2015)

Graduate > 120 credits: 153 Avg, 150.2 median (N = 276– 446, median range 5, average range 9)

Graduate > 120 credits:

• 92.4%, TTD 2.92, 154 Avg, 144.2 median

Graduate > 120 credits with minor:

I7.6%, TTD 3.1, I55.2 Avg, I48.8 median

Graduate > 120 credits with dual:

• 6.2%, TTD 2.96, 156.4 Avg, 151.2 median

Graduate > 120 credits dual and minor: 21.8%

Graduate > 120 credits change major: • 12.44%, TTD 3.4, 153.2 Avg, 151.2 median

Graduate > 120 with co-op:

• 10.28, TTD 3.3, 150.4 Avg, 148.2 median

Graduate > 120 not in other group:

• 45.5%, TTD 2.88, 153.4 Avg, 148.4 median

Positive observations

- 51.8% of FTC students obtained additional "value-added" credentials.
- Increasing number of FTC and TRE graduates engaging in co-op which provides a positive marketing opportunity.
- Observable differences between FTC and TRE statistics.
- Provides data-driven opportunity to articulate why Missouri S&T is different and why it makes sense that students often exceed minimum credit hours.

Confirming observations

- Average credit hours matches System data with FTC students
- Time to degree confirmed as 4.5 5.0 years as was generally believed.

General Discussion and recommendations for future study

While the focus of this study is very limited and evaluates data across all programs rather than common degree hour requirements, general statements or observations can be made.

The five year academic year data set included 5906 line items. Of that number, there were 4175 FTC entries and 1731 TRE entries. Only a small number of students graduated with 120 credit hours. In a separate report not included in the above statistics, just under 600 students graduate with 128 credit hours. Less than 100 graduated with 120 credit hours as observed in a separate report focusing mainly on 120 credit hour programs. Clearly, a small number and percentage of FTC students will graduate with the minimum required hours.

The percentage of students who obtained minors for both FTC and TRE was more than might be expected. Generally speaking, especially in the case of BS programs, minors usually will lead to additional hours above the minimum required. In the case of some BA programs, it is possible to obtain a minor with exactly 120 credit hours (one case randomly observed in the data set – English with a minor in Business). Others may add only 3 - 6 credit hours. Minors range in required hours from 15 - 18. In the case of a typical BS student a minor may add from 12 - 18 hours to required BS credit hours. In other words, obtaining a minor can add significantly to minimum requirements. Similarly, dual majors can add a significant number of hours to minimum requirements. BA dual degree programs may require significantly less hours than Dual BS or BS/BA programs. Observations included 121 and 122 degree hours for dual majors, which had many common courses. Dual BS degrees may be obtained with as few as 19 credit hours and can go significantly higher.

Future study opportunities should first begin with comparing common minimum degree hour programs. While combining all programs provided a common reference for the system figures, it does severely hinder more detailed study and analysis. Further analysis of co-op credit and its relation on time to degree could be looked at in terms of impact on initial job placement and perhaps career success. For instance, could a student taking a co-op have to delay graduation due to program

scheduling issues, and then pursue a minor in order to maintain full-time status? A more detailed analysis of the impact of pre-college credit impacts time to graduation as well as total degree hours. Does bringing in more credit impact success, or in some cases hinder success? Many students and parents do not understand that not all hours will apply toward a specific degree program. Do advising and scheduling play a positive or negative role for both FTC and TRE students?

Final Recommendation

Conduct the same study comparing common degree hour programs. Then focus more heavily on the categories "Graduated with greater than minimum hours and changed major" and "Graduated with greater than minimum no other category" to include transcript or degree audit review.

APPENDIX A

Cumulative Retention & Graduation Rates of First Time, Full Time Degree Seeking Freshmen

			Full-Time, I		Missouri S&T n and Graduatic ree-Seeking Fre		2006-2016				
Year	Adjusted Cohort	Continued to 2nd Yr.	Continued to 3rd Yr.	Continued to 4th Yr.	Graduated in 4 Yrs.	Continued to 5th Yr.	Graduated in 5 Yrs.	Continued to 6th Yr.	Graduated in 6 Yrs.	Continued to 7th Yr.	
2006	935	87%	78%	74%	27%	45%	57%	11%	65%	4%	
2007	1,028	87%	76%	71%	24%	43%	55%	11%	63%	4%	
2008	1,038	88%	78%	73%	23%	50%	55%	18%	63%	8%	
2009	1,104	85%	78%	74%	23%	51%	55%	19%	65%	6%	
2010	1,140	83%	75%	71%	22%	50%	53%	19%	64%	6%	
2011	1,090	85%	77%	72%	22%	49%	54%				
2012	1,119	83%	73%	70%	22%	46%					
2013	1,244	86%	76%	71%						Most Recent	
2014	1,273	87%	78%							Graduation Ra	
2015	1,474	83%	<		Most Recent F	Retention Rate			\downarrow		
2016	1,466	4	-				Avg. Six-Ye	ar Graduation Rate	64%		
		85%	Avg. First-Year Rete	ention Rate		20	007-2010 (last four g	graduating cohorts)			



Graduation and retention rates are calculated from adjusted cohorts. Initial cohorts are adjusted for students who are identified as 1) deceased or totally disabled; 2) serving in the armed forces; 3) serving with a foreign aid service of the Fed. Govt.; 4) serving on an official church mission.

Source: Office of Institutional Research and Assessment

APPENDIX B

Retention Strategies and Tactics 2001-2016

Retention Strategies and Tactics, 2001-2016

Assessment Enhancement

- Created standardized retention and graduation reports by gender and ethnicity and began measuring stop-out rate (students who withdraw and return), 2002
- Began annual retention audit of academic (cognitive) and demographic factors, 2001
- Instituted new-student survey in freshman Preview, Registration and Orientation (PRO sessions), 2002
- Re-instituted the Hogan Personality Index (HPI) assessment to track students by non-cognitive factors, 2002
- Revised withdraw surveys and interviews, 2002
- Started follow-up telephone surveys of non-returning students, 2002
- Began collection and campus-wide distribution of freshman academic profile, specifically newstudent survey data about expectations, social activities, GPA, ACT/SAT scores, 2002
- Revised student satisfaction and engagement assessments, Cooperative Institution Research Program and National Survey of Student Engagement, 2001
- Identified classes with very low student success rates, grade of D, F or Withdraw , 2001
- Revised and re-launched the faculty and student advising survey, 2012

Programming: Advising, Tutoring, Learning Communities, Faculty Training and Support

- Learning Enhancement Across Disciplines (LEAD) tutoring program expanded beyond physics classes, Fall 2002
- Joint Academic Management (JAM) sessions established, 2004
- Online tutor request program implemented, 2003
- Opening Week activities restructured around a group project activity, 2002 and 2003
- Expectations of student success addressed in all recruitment and orientation speeches, 2002
- Group building (making friends) and study skills addressed in all orientation and Opening Week activities, 2002–2003
- A rapid response "Academic Alert System" initiated (2005) using an online student communication system, "Success Chain," 2005–2006
- Advising program expanded with regular advisor training and awards, 2002
- Learning Communities and First-Year Experience Programs to address student academic skills development and social engagement through student life-oriented group events, 2002–2003
- Expanded freshman pre-college "Hit the Ground Running" program to address student academic expectations
- Created the Center for Pre-College Programs (CPCP) to expand the K-12 student workshops and science, technology, engineering, and mathematics (STEM) summer camps.
- Created the Center for Educational Research and Teaching Innovation (CERTI): to address improving the Missouri S&T learning environment and student learning outcomes through collaborative learning, experiential learning, technology enhanced learning, and educational research practices (September 4, 2003).
- Expanded experiential learning programs by promoting student engagement through student design teams, undergraduate research (OURE expansion) and service learning

- Implemented the Notification of Scholastic Probation Form, 2007
- Established the undergraduate advising office, 2007
- Developed the On-Track Academic Success Program to assist probationary and academically deficient students, 2007
- Updated the online Missouri S&T Advising Handbook, 2011
- Implemented Majors & Minors, 2012
- Opened Burns and McDonnell Student Success Center, 2013
- Student Success Mentor Program for probationary admits, 2013
- Implemented Reconnection I & II, 2013
- Implemented Sophomore Summit, 2014
- Implemented 1/2 way to graduation event, 2016
- Hired Starfish position in Registrars office, 2016

Policy Changes

- Incomplete grade time limit change, 2002
- Repeat course GPA adjustment policy, 2002
- Scholarship Reinstatement Policy, 2002
- All BS degree programs reduced to fall between 124 and 128 hours, 2002–2003
- Four degree programs most often requested by exiting students added: business, information science and technology, technical communication, and architectural engineering, 2002–2003
- Academic Forgiveness Policy, 2011-12

Financial Assistance

- \$285,000 additional need-based funding for first-time college students, 2012
- \$80,000 institutional work study grant, 2014
- Spirit of Success Scholarship for high ability minority students, \$264,500 was spent in new students and renewals, 2014-15

APPENDIX C

Evaluation of Survey Results and Other Documents

Non Returning FTC Survey Results SP2016					
	# of			# of	
2015 Cohort	Students	percent		Students	percent
FS2015 FTC students who were not registered for SP2016					
phoned or contacted between 01/04/2016 - 01/18/2016	89				
Plan to Register for SP2016	21				
Transferring	23				
Not Returning	2				
Students Leaving Responses	25		Not Reached	43	
Male	10	700/			040/
	18			39	
Female	7	28%		4	9%
Missouri Residents	17	68%		38	88%
Non-Missouri Residents	8			5	
		5270			12/0
Engineering Majors	17	68%		29	67%
Computer Science	4	16%	,	7	16%
Physics	1	4%		1	
Biological Sciences	2	8%		2	5%
Applied Mathematics	1	4%			0%
Economics				1	
Undecided Undergraduate				3	7%
Race White	22	88%)	29	67%
Non-Specified	2		· · · · · · · · · · · · · · · · · · ·	2	5%
Hispanic-Latino	1			3	
Black/African American		0%		4	9%
Asian				3	
Multiple Race		0%		2	5%
Average Cum. ACT	27.54			26.42	
Average Cum. GPA	27.51			20.12	
3.5-4.0	10	40%		11	26%
3.0-3.49	7			5	

2.5-2.9	4	16%	7	16%
2.0-2.49	2	8%	6	14%
1.9 and below	2	8%	14	33%
Would you recommend Missouri S&T				
yes	16	64%		
no				
maybe/depends	4	16%		
no response	5	20%		
Extracurricular activities				
yes	14	56%		
no	5	20%		
no response	6	24%		
Reasons for leaving				
financial	5	20%		
changing major	7	28%		
not a good fit	1	4%		
moving	1	4%		
enlisted in Navy	1	4%		
other school is better for major	1	4%		
likes another location/city better	1	4%		
bad roommate experience	1	4%		
get gen eds out of way	4	16%		
be closer to home	1	4%		
no reponse	2	8%		




MISSOURI SET MISS	souri Unive	rsity of Sci	IENCE AND T	ÈCHNOLOGY		Founded 1	870 Rolla, Misso	uri	
Does Calc I Success Predict Calc II Success?									
Calc II Grade	А	В	с	D	F	WD	HR		
A in Calc I	75.25%	17.61%	4.81%	0.39%	0.78%	0.54%	0.62%		
B in Calc I	30.77%	38.28%	21.25%	3.29%	2.10%	2.18%	2.13%		
C in Calc I	5.77%	22.52%	36.84%	12.11%	9.53%	6.05%	7.18%		
	Gr	ade in Calc	:1	Cal	c II Pass Ra	te			
		A			97.67%				
		в			90.31%				
	с			65.13%					
		-		nts who t try <mark>82.6</mark>					

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	MISSOURI MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY Founded 1870 Rola, Messouri									
D	Does Calc I Success Predict Calc II Success?									
	Calc II Grade	А	в	с	D	F	WD	HR		
	A in Calc I	75.25%	17.61%	4.81%	0.39%	0.78%	0.54%	0.62%		
	B in Calc I	30.77%	38.28%	21.25%	3.29%	2.10%	2.18%	2.13%		
	C in Calc I	5.77%	22.52%	36.84%	12.11%	9.53%	6.05%	7.18%		
		Gr	ade in Calo	:1	Cal					
			А			97.67%				
			В			90.31%				
		с				65.13%				
	C 65.13% Since Spring 2004, students who pass Calc I have passed Calc II on the first try 82.65% of the time.									

	Set	Missouri Un	SSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY Founded IN									
V	What About Unsuccessful Calc I Students?											
	Second	l Attempt	A	В	0	:	D	F	WD	HR		
	First At	tempt: D	2.70%	27.36%	42.00	0%	17.53%	8.09%	1.93%	0.39%		
	First At	tempt: F	0.62%	10.91%	24.90	0%	22.22%	32.92%	8.23%	0.20%		
	First At	tempt: WD	1.27%	8.90%	28.81	۱%	14.83%	30.09%	13.98%	2.12%		
	First At	tempt: HR	1.23%	8.59%	34.36	5%	18.40%	24.54%	9.20%	3.68%		
		_			_							
			First Atte	empt		Pass Rate on Second Attempt						
			D				72	2.06%				
			F				36	5.42%				
			WD				38	3.98%				
			HR				44	1.17%				

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MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY Founded										
Does Calc II Success Predict Calc III Success?										
Calc III Grade	А	В	с	D	F	WD	HR			
A in Calc II	41.36%	35.32%	17.85%	1.89%	0.91%	1.43%	1.24%			
B in Calc II	7.98%	28.91%	39.59%	9.89%	3.94%	6.53%	3.16%			
C in Calc II	1.96%	13.78%	32.70%	16.84%	14.33%	13.72%	6.67%			
1	Gra	ade in Calc	11	Cal	c III Pass Ra	ate				
		А								
		В			76.48%					
		С			48.44%					
	Since Wir passed C				-					

Missouri U	SOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY Founded									
What About Unsuccessful Calc II Stud										
Second Attempt	А	В	с	D	F	WD	HR			
First Attempt: D	6.47%	29.12%	40.30%	10.88%	9.41%	3.82%	0%			
First Attempt: F	3.59%	13.55%	27.89%	20.72%	21.51%	8.76%	3.98%			
First Attempt: WD	7.28%	13.91%	31.79%	16.55%	13.91%	12.58%	3.98%			
First Attempt: HR	6.01%	17.60%	33.48%	12.87%	9.01%	14.16%	6.87%			
_			_							
	First Att	empt	Pa	ss Rate on	Attempt					
	D			7						
	F			4	5.03%					
	WE)		5	2.98%					
	HR			57.09%						

I UNIVERSITY OF SCIENCE AND TECHNOLOGY

Can Underperforming Calc I Students Be Identified Early?

Fall 2013	A, B, C after E2	D after E2	F after E2	Total
Total Students	364	49	55	468
Passed (A, B, C)	299	4	0	303
Failed (D, F)	63	33	31	127
Withdrew	2	12	24	38

Fall 2014	A, B, C after E2	D after E2	F after E2	Total
Total Students	342	35	51	428
Passed (A, B, C)	292	3	2	297
Failed (D, F)	48	32	36	116
Withdrew	2	0	13	15











MISSOURI MISSOURI UNIVERSITY OF SCIENCE	AND TECHNOLOGY Founded 1870 Rola, Missouri								
Some Preliminary Results									
Fall 2015 Success Cohort: Spring 2016 Status	140 students (81 S, 55 U, 4 WD)								
In Math 1214:	91 (62 S, 29 U)								
In Math 1208:	4 (3 S, 1 U)								
In Math 1212:	6 (3 S, 3 U)								
In Math 1140/1160:	1 (1S)								
In Stat 1115:	1 (1U)								
Enrolled, no math:	22 (9 S, 12 U, 1 WD)								
On Co-Op:	1 (1U)								
Study Abroad:	1 (1U)								
Not Enrolled:	13 (3 S, 7 U, 3 WD)								

MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY Founded 1870 Rola, Messouri										
Some Preliminary Results – Exam 1										
Cohort	FS15 Count	FS15 Exam 1 Average	SP16 Count	SP16 Exam 1 Average						
Whole Class	524	65.84%	458	72.26%						
FS15 Success (S)	81	55.74%								
FS15 Success (S) Retaking in SP16	62	56.32%	62	76.61%						
FS15 Success (U)	55	51.09%								
FS15 Success (U) Retaking in SP16	29	51.75%	29	67.86%						
FS15 1214 (D) Retaking in SP16	19	62.94%	19	74.63%						
FS15 1214 (F) Retaking in SP16	10	59.36%	10	69.45%						

MISSOLIRI S&T

URI UNIVERSITY OF SCIENCE AND TECHNOLOGY

Founded 1870 | Rolla, Missour

How Often do Students Repeat Courses?

Attempts including HR/WD	1103	1120	1140	1160	1208 1214	1215 1221	2222	3304	1212
1	1085	1971	3393	5048	6922	7809	6464	6324	521
2	127	541	59	623	1109	805	1024	728	45
3	20	71	5	117	231	127	180	142	3
4	4	12	0	10	44	35	52	37	1
5	2	3	0	4	14	7	9	8	0
6	0	0	0	0	5	3	1	4	0
7	0	1	0	2	5	1	2	0	0
8	0	0	0	0	0	1	1	0	0
9	0	0	0	0	0	0	1	0	0
10	0	0	0	0	0	0	0	0	0
11	0	0	0	0	1	0	0	0	0
12+	0	0	0	0	0	0	0	0	0





Student Veterans Resource Center

Mission: The Student Veterans Resource Center is to serve all Missouri S&T student service-members and veterans as a campus resource that will provide high quality customer service, effective information, and support as students persist in their journey towards their educational goals.

Description: The Student Veterans Resource Center is designed to empower and educate student veterans on utilizing the campus tools and resources to be successful students. The Student Veterans Resource Center was developed as a campus wide initiative dedicated to our student veterans by providing peer mentors, caring staff, effective programs and events, and approachable faculty and administrators who are supportive of student success for all veterans on the S&T campus.

Objectives:

- Coordinate and support programs and retention efforts that foster student success for our veterans at Missouri S&T
- Collaborate with academic and non-academic departments on resources available to help enrich student veterans' educational experiences
- Guide veteran students on the path to success by providing referrals to appropriate on and off campus departments and resources to help them achieve at the best of their ability and reach their educational goals.

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Our Services:

We offer a variety of services for our veterans on campus in order to help them succeed and reach their potential academically, socially, and personally. Our services are available for both undergraduate and graduate veteran students in all departments taking classes at Missouri S&T. We focus on improving students' skills that will continue for their entire academic careers.

Campus Collaboration and Services:

- Financial Aid
- Counseling and Disability Services
- Peer/Mentor support
- Transition/orientation programs
- Veterans off campus resources and programs/events
- Career Guidance
- Academic programs and events
- Corporate Networking
- Registration processes/Transfer credits/Graduation
- Faculty Interaction
- Transferable skills
- Veterans family programs & events
- Veteran recognition programs and
- o Alumni Support
- Veteran social and cultural programs/events
- o **Resources**
- o Wellness/Athletics/Physical opportunities
- o Therapy Dogs
- Communication through website, Twitter, Facebook, email (technology)

Save the Date:

Welcome Back Reception: Tuesday, January 19, noon-4:00 p.m.

Official Open House: Saturday, March 19, noon-4:00 p.m. (after the St. Pat's Parade) Student Veterans Round Table: noon-1:00 p.m. (during lunch period) on the 1st and 3rd Wednesday of each month during the semester – starting February17.

Missouri S&T's Student Veterans Resource Center (an office of Student Success Programs) Ground Floor of the Baptist Student Union Garrett Coffey, Advisor, 573-341-6117, gc343@mst.edu Like us on Facebook: sandtsvrc

Enrollment Projections for Fall 2016 as of May 9, 2016 Enrollment Management

(Numbers in parenthesis are from one year ago.)

- 1. Total enrollment is projected to increase 1.7% to 9,040 (8889).
 - a. 1.3% increase in first-time college students (FTC) at 1,508 (1,489) See further information below.
 - b. 0% change in new transfer students (TRE) at 430 (430)
 There has been a good increase in domestic transfers, making up for the decrease in international undergraduates, especially from China.
 - c. 4% increase in total undergraduate students at 7,115 (6,841)
 A strong early registration by the Fall 2015 class which was a 15% increase over Fall 2014 and improving retention rates contributes to the increase.

- d. 6% drop in total graduate students at 1,925 (2,048)
 The decrease is primarily in international graduate students from oil dependent countries.
- 2. First-time college students
 - a. PRO deposit 5-year comparison.

PRO deposits – FTC – First week May	Fall 2016 (1453)	Fall 2015 (1451)	Fall 2014 (1215)	Fall 2013 (1197)	Fall 2012 (1072)
Average ACT	28.1	28.1	28.2	27.9	27.8
High School GPA	3.80	3.83	3.85	3.78	3.75
Engineering	75.8%	77.6%	81.3%	81.3%	80.5%
Female	23.5%	23%	22%	na	na
Missouri residents	82.2%	80.7%	82.0%	81.7%	na

b. PRO deposit comparison by degree program.

The enrollment deposit percentage in engineering has been decreasing while the sharp rise in Computer Science has leveled. The jump two years ago in undergraduate undecided is the result of admitting any student with at least a 24 ACT. They are not admitted into Freshman Engineering, until they are ready. The Undergraduate Advising office works closely with these students to find a good degree program fit.

PRO deposits as of 5			
	Fall 2014	Fall 2015	Fall 2016
UGST Und	9	40	51
Bio Sci	43	41	43
Business	8	8	10
Chemistry	19	21	17
Comp Sci	101	160	164
Economics	4	0	1
Engineering	1007	1126	1101
English	1	1	2
Geology/GeoPhy	9	5	13
History	1	0	0
IST	6	9	7
Mathematics	9	14	5
Multidisciplinary	0	0	4
Physics	20	24	26
Philosophy	0	0	1
Psychology	0	1	7
Tech Com	1	1	1
	1238	1451	1453
Engineering	81.3%	77.6%	75.8%
Computer Science	8.3%	11.0%	11.3%
CASB	10.5%	11.4%	12.9%

SUMMARY OF HGR STUDENT PERFORMANCE

				% lst			
		% With		Semester		HGR HS	
		Successful	% Receiving	Probation for	HGR/S&T	AVE	
		Fall	At Least I	HGR Students	FTC AVE 1st	GPA/FTC	
	#	Semester	Failing HGR	Receiving D/F	Semester	HS AVE	AVE ACT
Year	Students	(>=2.0)	Grade (D/F)	HGR Grade	GPA	GPA	HGR/FTC
2006	89	89	21.3	53	3.24/3.04	3.64/3.72	25.6/27.2
2007	95	92	26.3	32	3.06/3.07	3.71/3.71	25.7/27.4
2008	142	88	45.I	26.5	3.03/3.08	3.58/3.72	26.0/27.4
2009	115	78	44.3	49	2.89/3.11	3.67/3.78	26.3/27.7
2010	109	79	57.8	36.5	2.72/3.02	3.61/3.80	26.4/27.7
2011	121	83	49.6	31.7	2.85/3.09	3.57/3.77	26.6/27.8
2012*	80	69	16.25	23.1	2.85/2.99	3.72/3.8	26.6/27.8
2013	100	85	24	37.5	2.77/3.05	3.71/3.8	27.3/27.9
2014	59	81	17	70	2.82/3.0	3.6/3.85	27/28.3
2015	91	86	27	32	2.75/2.97	xxx/3.86	27.2/28.1

*First year of math intensive option xxx data error

2012: 25 (out of 80) students were on the Math intensive track (31.2%)

• No data on this cohort

2013: 27 (out of 100) students were on the Math intensive track (27%)

- 30 of the 40 Trig students received credit by exam for Trigonometry
- 15 of the 24 Precalulus students received credit by exam for College Algebra
- 3 of the 24 Precalulus students received credit by exam for Trigonometry
- 8 of the 27 Algebra students received credit by exam for College Algebra

2014: 33 (out of 59) students were on the Math intensive track (56%)

- 4 out of 27 Algebra students earned credit by exam for College Algebra (14.8%)
- 5 out of 12 Precalculus students earned credit by exam for College Algebra (41.7%)
- 0 out of 12 Precalculus students earned credit by exam for Trigonometry
- 14 out of 17 Trigonometry students earned credit by exam for Trigonometry (82.4%)

For Summer 2015, we're going to handle the Precalculus group a little differently, and we're only going to focus on college algebra topics with them in hopes we can get that 41.7% success rate even higher. In the past, the trigonometry coverage has been minimal, and they'll be better in the long run if we keep that group more focused.

2015: 37 (out of 91) students were on the Math intensive track (40.7%)

- 9 out of 37 Intensive Algebra students earned credit by exam for College Algebra (24.3%)
- 15 out of 31 College Algebra students earned credit by exam for College Algebra (48.4%)

• 18 out of 21 Trigonometry students earned credit by exam for Trigonometry (and the other three earned a waiver of trigonometry) (85.7%)

Keep in mind that the middle group (College Algebra) no longer retakes the trig exam due to results from previous years.

APPENDIX D 2015-2016 Meeting Minutes

Ø

Meeting Schedule

The Retention Committee meets every other Thursday, from 8:15-9:15 AM in the Silver & Gold room of the Havener Center.

November 12th, 2014-2015 Presentation to Chancellor Schrader December 10, 2016 Winter Break January 21, 2016 February 4, 2016 February 18, 2016 March 3, 2016 April 14, 2016 April 28, 2016 Subcommittees continue meeting through summer months September 1, 2016 September 15, 2016 September 22, 2016 October 13, 2016 December 10, 2015 8:15 am – 9:15 am Havener Center, Silver and Gold

Members Present:

Tim Albers, Bridgette Betz, Carl Burns, Jeff Cawlfield, Steve Clark, Tyrone Davidson, Kate Drowne, Cecilia Elmore, Patty Frisbee, Larry Gragg, Deanne Jackson, Katie Jackson, Oyebanjo Lajubutu, Douglas Ludlow, Alyssa McCarthy, Rachel Morris, Mark Pottorff, Lynn Stichnote, Laura Stoll,

Ex Officio Members Present

Deb Anderson, Angie Hammons, Adrienne Neckermann

Members Absent:

John Gallagher, Austin Lohr, John Myers, Dorie Paine, Stephen Raper, Kristi Schulte, Klaus Woelk

I. Tentative Subcommittees

- a. Graduate Student Experience (continuation).
 - i. Chair to be named.
- b. Transfer Student Success and Engagement (continuation).
 - i. Lynn Stichnote will chair.
- c. Advising Center Models and Best Practices.
 - i. Tyrone Davidson will chair.
- d. Time to Graduation / Credit Hours.
 - i. Chair to be named.

II. Committee Timeline

- a. The timeline was discussed.
- b. Tentative date for presentation to the Chancellor is October 27, 2016.

III. Announcements

- a. Patty Frisbee said that Alyssa McCarthy received a Model the Way leadership award.
- Bridgette Betz reviewed two major changes to the FAFSA that will take effect for the 2017– 18 school year.
 - i. The FAFSA will be available earlier. (October 1 of the previous year instead of January 1 of the upcoming school year).
 - ii. The FAFSA will collect income information from an earlier tax year. Beginning with the 2017–18 FAFSA, students will report income information from two years prior (instead of 1 year prior), which in this case is 2015 income information—two tax years before the beginning of the school year.
- c. Oyebanjo Lajubutu said that the National Survey of Student Engagement will be sent electronically to freshmen and seniors in February 2016. Students will be encouraged to participate through marketing campaigns.

IV. Next Meeting – January 21, 2016

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Minutes

January 21, 2016 8:15 am – 9:15 am Havener Center, Silver and Gold

Members Present:

Tim Albers, Bridgette Betz, Carl Burns, Jeff Cawlfield, Tyrone Davidson, Cecilia Elmore, Patty Frisbee, John Gallagher, Larry Gragg, Deanne Jackson, Katie Jackson, Oyebanjo Lajubutu, Douglas Ludlow, Rachel Morris, Dorie Paine, Mark Pottorff, Stephen Raper, Kristi Schulte, Lynn Stichnote, Laura Stoll,

Ex Officio Members Present

Deb Anderson, Angie Hammons, Adrienne Neckermann

Members Absent:

Steve Clark, Kate Drowne, Austin Lohr, Alyssa McCarthy, John Myers, Klaus Woelk

- I. Review and Approval of Minutes
 - a. Minutes were approved.

II. Subcommittee Signups

a. Jeff Cawlfield reviewed subcommittee topics.

III. Enrollment Update

- a. Laura Stoll gave a handout summarizing opening day enrollment.
- b. Total enrollment for first day of spring semester is 7,931, which is 2.9% above last year.
- c. Total female students are 1,824, which is 23.0%.
- d. Total Black/African American students are 266, which is an increase of 4.3% over last year.
- e. Total Hispanic students are 237, which is an increase of 5.3% over last year.
- f. 30 students (15 last year) are enrolled in the new Multi-Disciplinary Studies degree program.

IV. Student Veterans Resource Center (SVRC)

- a. Patty Frisbee gave a handout describing the mission, objectives, and services at the SVRC.
- b. Official open house is scheduled for Saturday, March 19, noon-4 pm.
- c. Tara Stone will present "Advising Missouri S&T's Veterans" at the Undergraduate Advising series on Monday, April 4, noon-1:30 pm.
- d. Student Veterans Round Tables are held from noon-1 pm the first and third Wednesdays of each month during the semester.

V. Pre-requisite Checking

- a. Deanne Jackson gave a handout containing data about pre-requisite checking.
- b. Struggled with verbiage to direct students to the appropriate place to obtain a permission number and will use "department where the class is taught" in the future.

c. Keith Nesbitt chaired this taskforce and assisted with faculty communications regarding the pre-requisite checking process.

VI. Committee Timeline

- a. Jeff Cawlfield reviewed the timeline.
- b. The presentation to Chancellor Schrader is scheduled for October 20.

VII. Announcements

- a. Laura Stoll presented Kristi Schulte with a farewell card and a lapel pin. Kristi will begin a new job in Wichita Falls, TX, on February I.
- b. Oyebanjo Lajubutu handed out a postcard that will be sent to all freshmen and seniors encouraging them to complete the NSSE survey. The survey will be open February 9-March 19. Results will be used in the 2018 accreditation. The goal is to obtain a 40% response rate, and prizes will be offered for completing the survey.
- c. Tyrone Davidson said that the Advising Summit will be held on Friday, March 18. Dr. Jenny Bloom will be the keynote speaker.
- d. Angie Hammons said that the Teaching & Learning Technology (TLT) conference will be held March 17-18. The keynote speaker will be Dr. Linda Nilson.

VIII. Next Meeting - February 4, 2016

8:15 am – 9:15 am, Havener Center, Silver and Gold

February 4, 2016 8:15 am – 9:15 am Havener Center, Silver and Gold

Members Present:

Tim Albers, Bridgette Betz, Carl Burns, Jeff Cawlfield, Steve Clark, Tyrone Davidson, Kate Drowne, Cecilia Elmore, John Gallagher, Larry Gragg, Deanne Jackson, Oyebanjo Lajubutu, Alyssa McCarthy, Rachel Morris, Stephen Raper, Lynn Stichnote, Laura Stoll

Ex Officio Members Present

Deb Anderson, Erica Long, Angie Hammons

Members Absent:

Patty Frisbee, Katie Jackson, Austin Lohr, Douglas Ludlow, John Myers, Dorie Paine, Mark Pottorff, Klaus Woelk

Guest Present:

Diane Hagni

I. Review and Approval of Minutes

a. Review and approval of minutes will be postponed until the next meeting.

II. MASH (Math Assistance where Success Happens)

- a. Diane Hagni gave an update on the MASH program.
- b. Assistance offered for students in Math 1120 the past 4 semesters.
- c. Of students who attend MASH regularly, 70-80% are successful.
- d. Parents were notified about MASH the first three semesters, but not the fourth semester.
- e. The fourth semester class size increased 13%, but attendance at MASH decreased.
- f. Received positive feedback from students who did attend.
- g. Alyssa McCarthy said that students may find instructors, culture, and verbiage surrounding Math 1120 to be negative.

III. Subcommittee Signups

- a. A chairperson is needed for Graduate Student Experience. Oyebanjo Lajubutu will consider co-chairing with someone.
- b. Laura Stoll reminded the committee that Chancellor Schrader recommended the committee dig deeper into the data.

IV. Non Returning FTC Survey Results SP 2016

- a. Deanne Jackson shared results of the Non Returning FTC Survey for Spring 2016.
- b. The main reasons for not returning include financial, fit, and location.

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c. Deb Anderson asked if the transfer admissions team may contact students planning to return to S&T to offer information and advice to ease their re-entry.

V. Student Panel Ideas and Goals

- a. Tentatively scheduled for March 3.
- b. Send names of potential student panelists, questions, and topics to Jeff Cawlfield, Laura Stoll, Rachel Morris, or Donna Luechtefeld.

VI. Announcements

- a. John Gallagher said that there will be a trivia night to support Miner Challenge on March
 I. Entry fee is \$100. During spring break, five student groups will travel to Alabama,
 Colorado, Kentucky, Louisiana, and Tennessee.
- b. Oyebanjo Lajubutu said that the NSSE survey will launch on Feb 9 and a final reminder will be sent on March 9.
- c. Lynn Stichnote thanked everyone who helps with Miner Days and Open Houses. The first Open House is Monday, Feb 15.
- d. Laura Stoll said that the first PRO day is Saturday, Feb 27.
- e. Following the meeting, Alyssa McCarthy requested the following link for a petition to support the Tobacco Free Campus Initiative be included in the minutes. bit.ly/tobaccofreesandt

VII. Committee Timeline

- a. Sep I, 2016 Biweekly meetings resume
- b. Sep I, 2016 Presentations of subcommittee reports
- c. Sep 15, 2016 Presentation of subcommittee reports
- d. Sep 22, 2016 Final draft of subcommittee reports (narrative and slides) due to Rachel
- e. Sep 29, 2016 Rachel to send draft of final report to committee members
- f. Oct 4, 2016 Edits and corrections of final report due to Rachel
- g. Oct 6, 2016 Rachel to send final report to committee
- h. Oct 13, 2016 Rachel to send report to the Chancellor
- i. Oct 20, 2016 Student Success Committee presentation to the Chancellor, Provost, and VP&D for CASB and CEC

VIII. Next Meeting – February 18, 2016

8:15 am – 9:15 am, Havener Center, Silver and Gold

February 18, 2016 8:15 am – 9:15 am Havener Center, Silver and Gold

Members Present:

Bridgette Betz, Carl Burns, Jeff Cawlfield, Tyrone Davidson, Kate Drowne, Patty Frisbee, Deanne Jackson, Austin Lohr, Douglas Ludlow, Rachel Morris, Dorie Paine, Mark Pottorff, Stephen Raper, Lynn Stichnote

Ex Officio Members Present

Erica Long, Adrienne Neckermann

Members Absent:

Tim Albers, Steve Clark, Cecilia Elmore, John Gallagher, Larry Gragg, Katie Jackson, Oyebanjo Lajubutu, Alyssa McCarthy, John Myers, Laura Stoll, Klaus Woelk

Guest Present:

Paul Runnion

I. Review and Approval of Minutes

Minutes for January 21 were approved. Minutes for February 4 were approved as amended.

II. Calculus Redesign Update

Paul Runnion gave an update on the calculus redesign.

Success in one course is a good predictor of success in the following course.

Students who passed Success for Calculus in Fall 2016 and are retaking Calculus I are showing improvement over their performance last semester.

SP 2016 piloting the Calculus III redesign. FS 2016 all Calculus III sections will use the redesign format.

Deanne Jackson said that enforcement of prerequisites will result in decrease of number of attempts because students won't be able to register for next class.

Kate Drowne will welcome the opportunity to speak about CASB majors with students who are questioning their choice of major.

Paul Runnion said national emphasis is placed on very low level math courses. Can this model be used to assist students in those types of classes?

III. Student Panel

Approximately six students will be invited to be on the panel. Send student names to Jeff Cawlfield.

Send questions or topics to Jeff Cawlfield.

IV. Subcommittee Updates

Oyebanjo Lajubutu and Adrienne Neckermann will co-chair the graduate student experience subcommittee.

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Lynn Stichnote said that the Transfer Student Success and Engagement subcommittee will work with Oyebanjo Lajubutu to create a transfer student success report.

V. Announcements

Jeff Cawlfield reminded everyone that the TLT conference is on March 17-18 and the Advising Summit is on March 18.

VI. Committee Timeline

- Sep 1, 2016 Biweekly meetings resume
- Sep 1, 2016 Presentations of subcommittee reports
- Sep 15, 2016 Presentation of subcommittee reports
- Sep 22, 2016 Final draft of subcommittee reports (narrative and slides) due to Rachel
- Sep 29, 2016 Rachel to send draft of final report to committee members
- Oct 4, 2016 Edits and corrections of final report due to Rachel
- Oct 6, 2016 Rachel to send final report to committee
- Oct 13, 2016 Rachel to send report to the Chancellor
- Oct 20, 2016 Student Success Committee presentation to the Chancellor, Provost, and VP&D for CASB and CEC

VII. Next Meeting – March 3, 2016

8:15 am – 9:15 am, Havener Center, Carver Turner Room

Minutes

March 3, 2016 8:15 am – 9:15 am Havener Center, Silver and Gold

Members Present:

Bridgette Betz, Carl Burns, Jeff Cawlfield, Steve Clark, Tyrone Davidson, Kate Drowne, Cecilia Elmore, Patty Frisbee, John Gallagher, Larry Gragg, Deanne Jackson, Katie Jackson, Oyebanjo Lajubutu, Douglas Ludlow, Alyssa McCarthy, Rachel Morris, John Myers, Dorie Paine, Mark Pottorff, Laura Stoll

Ex Officio Members Present

Deb Anderson, Angie Hammons, Erica Long

Members Absent:

Tim Albers, Austin Lohr, Stephen Raper, Lynn Stichnote, Klaus Woelk

Student Guests Present:

Kira Buckowing, Brad Farley, Jessica Farris, Montana Long, Mallory Purnell, Demetrius Williams

I. Review and Approval of Minutes

a. Minutes were approved

II. Student Panel

- a. Members of the Student Success Committee asked six students questions regarding success and retention.
 - i. How have you overcome financial burdens? (Laura Stoll's Student Advisory Group)
 - Jessica Set goal in high school to find sources for funding college. She is a member of ROTC and has scholarships. She only had to pay for the first semester.
 - Brad Received parent loans while he majored in engineering. He will have to repay parents for loans for an elementary education degree. He remains at S&T because he likes the community and atmosphere here. The intellectual environment is good for him.
 - 3. Kira Chose S&T over Michigan Tech because they are equal distance from home. Scholarships reduce the cost so that she pays the same as in-state tuition in Michigan. She has a student job and works hard to maintain her scholarships. She plans to repay her parents for their financial assistance.
 - 4. Montana She splits the cost of college with her parents. Scholarships cover her portion. She began with a track scholarship. She currently works three on-campus jobs.

- Mallory She was high school valedictorian but had no high school scholarships. She receives \$10K/year for scholarships. She currently works two on-campus jobs.
- ii. Has there been a particular person who helped you? (Larry Gragg)
 - Jessica A couple of professors in the aerospace department didn't want her to change majors and asked her to come see them before making a decision. They remember little things.
 - 2. Montana Professionally, her advisor offered her a job only five minutes after meeting her. Personally, Patty Frisbee put me in situations that forced me to grow.
 - 3. Kira The TA for the math club always stops to talk to me. The student design team advisors ask how things are going, don't let us get discouraged, reassure us they will help find funding. I can talk to him about personal stuff such as housing issues.
 - 4. Brad Phyllis Blackwell does pre-advising before I meet with my content advisor. She makes an effort to get to know me personally and professionally. Tyrone Davidson is the biggest influence. He helped me switch my major from secondary to elementary education. Tyrone offered for me to call my parents from his office.
- iii. What caused you to stay? (Carl Burns)
 - Demetrius Self-motivation and determination. I had to keep pushing. My mom and dad never quit, so they were good role models.
 - 2. Kira I have a network of friends, nearby and by phone or text. I had to leave fake/bad friendships behind. I'm told I'm appreciated at work.
 - Brad My mom didn't want me to come back after I received three D's my first semester. I changed my priorities to focus on school. I got a new roommate.
 - Jessica I was too stubborn and prideful to seek help, but I finally stepped off my high-horse and asked for help after I got a D and had a few bad semesters. I put myself in the On-Track program. My mentor was a good friend.
- iv. Does your student job contribute to your staying at S&T? (Tyrone Davidson)
 - I. Jessica Getting a job and joining organizations force me to be organized.
- v. Would taking 15 credit hours the first semester contribute to your staying at S&T? (Laura Stoll)
 - I. Demetrius Might be good. Eighteen hours is too much.
 - 2. Brad Depends on the person and the classes. Fifteen is good for the very focused student with a good attitude.
 - 3. Jessica How the time after class is used is more important than the classes or the number of hours.

- vi. What is it like to be in a non-engineering major? (Kate Drowne)
 - 1. Brad Sometimes I feel left out, but I enjoy being surrounded by engineers.
 - Montana Choosing S&T for an IT degree is the best decision I ever made. I get exposure to engineering companies I'd never get at another college. I have emotional/social intelligence, and I will be able to go to industry and work with anyone because I did that here.
- vii. Did athletics affect your success? (Carl Burns)
 - Montana –It was not difficult to balance academics and athletics, and I would have stuck with track if I loved it. Track interfered with my PRO Leader job that I love.
- viii. Are there things campus should be doing to enhance student success? (Larry Gragg)
 - 1. Demetrius Students have to want to succeed, push themselves. Some students lack motivation.
 - Kira students are worried about where they are going to live. Students feel forced out of campus housing after sophomore year. Investment Realty seems to be the only option for off-campus housing unless you know a landlord personally.
 - Mallory Students communicate via Yik Yak about going to psychologist to get note to live off campus. Some professors do not follow the syllabus. A midterm course/professor evaluation would be helpful.
 - 4. Montana I have very close relationships with the professors in BIT. Engineering students I know do not feel the same about professors in their departments. Students feel they cannot switch advisors even when they do not have a good relationship with their advisor.
- ix. What are your post-graduation plans? (Oyebanjo Lajubutu)
 - I. Montana I begin work with Cargill in July.
 - 2. Kira My goal is to work for a pharmaceutical company.
 - 3. Brad Teach for a couple of years and then begin a master's in Ed Tech.
 - 4. Jessica Air Force
 - 5. Demetrius May join the Corps of Engineers.
- x. What has your advising experience been like? (Tyrone Davidson)
 - I. Mallory Very good!
 - 2. Montana Dr. Lea has been very helpful.
 - 3. Kira Very good. I've had three advisors, but not by choice. The first was in the mining engineering department and didn't always know what I

needed to do. The chemical engineering advisor and biochemical engineering advisors were a better fit.

- Brad I have had three advisors. While in the FE program, the mechanical engineering advisor suggested I switch schools to obtain a teaching degree. He didn't know we have a teacher education program. My elementary education advisor has been very good. She is new on campus so we are learning together.
- 5. Jessica I like the centralized advising with Erica Long. We don't have to meet if I am on track. Dr. Pernicka still gives me guidance and advice.
- 6. Demetrius Dr. Castano was very helpful when I brought in 70+ hours. He met with me early. A previous advisor and my current advisor push me off till advising week, so meetings go over time.

III. Subcommittee Updates - None

IV. Announcements - None

V. Committee Timeline

- a. Sep I, 2016 Biweekly meetings resume
- b. Sep 1, 2016 Presentations of subcommittee reports
- c. Sep 15, 2016 Presentation of subcommittee reports
- d. Sep 22, 2016 Final draft of subcommittee reports (narrative and slides) due to Rachel
- e. Sep 29, 2016 Rachel to send draft of final report to committee members
- f. Oct 4, 2016 Edits and corrections of final report due to Rachel
- g. Oct 6, 2016 Rachel to send final report to committee
- h. Oct 13, 2016 Rachel to send report to the Chancellor
- i. Oct 20, 2016 Student Success Committee presentation to the Chancellor, Provost, and VP&D for CASB and CEC

VI. Next Meeting – April 14, 2016

8:15 am – 9:15 am, 249 Toomey



April 14, 2016 8:15 am – 9:15 am 249 Toomey Hall

Members Present:

Tim Albers, Bridgette Betz, Carl Burns, Jeff Cawlfield, Steve Clark, Tyrone Davidson, Cecilia Elmore, John Gallagher, Larry Gragg, Deanne Jackson, Katie Jackson, Oyebanjo Lajubutu, Douglas Ludlow, Alyssa McCarthy, Rachel Morris, Dorie Paine, Mark Pottorff, Stephen Raper, Lynn Stichnote, Laura Stoll

Ex Officio Members Present

Debbie Anderson, Angie Hammons, Erica Long, Adrienne Neckermann

Members Absent:

Kate Drowne, Patty Frisbee, Austin Lohr, John Myers, Klaus Woelk

I. Review and Approval of Minutes

a. Minutes were approved.

II. Enrollment Update

- a. Laura Stoll gave an update for Fall 2016.
 - i. 1520 freshmen, a 1-2% increase over last year.
 - ii. Final projection will be done on May 9.
 - iii. Increase related to Royall & Co campaign is unknown. There are two CASB PRO deposits to date. 45-90 students have been projected by Royall.
 - iv. Out-of-State Incentive Scholarship helping with Illinois yield.
 - v. There is a 17% increase in admitted transfer students.
 - vi. Decrease in international students due mostly to oil price dropping.
 - vii. Engineering undergraduate enrollment is relatively flat.
 - viii. Six psychology students have PRO'd.

III. Teacher Partners Update

- a. Angie Hammons gave an update on the Teaching Partners Program
 - i. Collegial peer coaching to improve or expand approaches to teaching through classroom observation and pre- and post-observation discussion. The program is voluntary and confidential.
 - ii. A more experienced faculty member is partnered with a less experienced faculty member. Cross-disciplinary dyads are acceptable since the goal is to improve teaching style rather than content .
 - iii. Piloted last year with three pairs. More than twelve faculty have participated.

IV. Subcommittee Updates

- a. Graduate Student Experience Oyebanjo Lajubutu
 - i. Will examine trends for time to degree for masters and doctoral students.

- ii. Will run focus groups to gather qualitative data related to quality of life, the academic experience, and available campus resources.
- b. Transfer Student Success and Engagement Lynn Stichnote
 - i. Need to create a survey.
- c. Advising Center Models and Best Practices Tyrone Davidson
 - i. No update.
- d. Time to Graduation / Credit Hours Steve Raper
 - i. Contacted Joe Jackson and Oyebanjo Lajubutu about available data and how many years to include.
 - ii. Will do bulk of work in July.

V. Announcements

- a. Doug Ludlow Freshmen engineering has three professional advisors. 8-12 students transferred to a CASB major following presentation in FE1100 by Kate Drowne.
- b. Lynn Stichnote 700 students visited campus in March. There is a good trend toward moving students from individual visits to Miner Days, which helps academic departments.
- c. Bridgette Betz –Many institutional work study students have continued employment with the original department, so new/more champion departments are needed for the upcoming year.
- d. Laura Stoll Jeff Cawlfield and Laura Stoll submitted a CRI proposal to support Hit the Ground Running and Institutional Work Study programs.

VI. Committee Timeline

- a. Sep I, 2016 Biweekly meetings resume
- b. Sep I, 2016 Presentations of subcommittee reports
- c. Sep 15, 2016 Presentation of subcommittee reports
- d. Sep 22, 2016 Final draft of subcommittee reports (narrative and slides) due to Rachel
- e. Sep 29, 2016 Rachel to send draft of final report to committee members
- f. Oct 4, 2016 Edits and corrections of final report due to Rachel
- g. Oct 6, 2016 Rachel to send final report to committee
- h. Oct 13, 2016 Rachel to send report to the Chancellor
- i. Oct 20, 2016 Student Success Committee presentation to the Chancellor, Provost, and VP&D for CASB and CEC

VII. Next Meeting – April 28, 2016

8:15 am – 9:15 am, Havener Center, Carver Turner Room

April 28, 2016 8:15 am – 9:15 am Havener Center, Silver and Gold

Members Present:

Tim Albers, Bridgette Betz, Carl Burns, Jeff Cawlfield, Tyrone Davidson, Cecilia Elmore, Patty Frisbee, John Gallagher, Larry Gragg, Deanne Jackson, Katie Jackson, Oyebanjo Lajubutu, Douglas Ludlow, Rachel Morris, Stephen Raper, Laura Stoll

Ex Officio Members Present

Angie Hammons, Caprice Moore

Members Absent:

Steve Clark, Kate Drowne, Austin Lohr, Alyssa McCarthy, John Myers, Dorie Paine, Mark Pottorff, Lynn Stichnote, Klaus Woelk

Guest Present:

Krista Morris-Lehman

I. Review and Approval of Minutes

a. Minutes were approved.

II. UCARE and Case Management Services

- a. Krista Morris-Lehman presented information about UCARE and Case Management.
 - i. Provide support, advocacy, and referrals to undergraduate and graduate students.
 - ii. Communicate with various campus groups.
 - iii. Point of contact for faculty and staff concerned about an individual student. Krista can then initiate contact with that individual.
 - iv. Acceptable for faculty or staff to submit a referral to Krista when a parent calls them about their child.
 - v. Group sessions are well attended.

III. Math Placement Procedure Review

- a. Laura Stoll gave an update on the development of an online math assessment for incoming students.
 - i. Students currently take the MMPT (Missouri Mathematics Placement Test) and TRIG exam during their PRO (Preview, Registration, and Orientation) session.
 - ii. Recommendations.
 - 1. Create an equivalency table with ACT math score and corresponding math class.
 - Compare pre-assigned math class to in-person testing at PRO. During 2017 students will continue to take the in-person placement test to confirm the class assigned based on the ACT math score. Adjustments will be made at the PRO advising session.

- 3. Analyze the results. After the PRO sessions in 2017, the data will again be analyzed to compare how many students needed a change of placement after the in-person testing.
- 4. If the pilot program in 2017 is successful, the equivalency table may be considered for use in 2018 to pre-assign the student's math class.

IV. Subcommittee Updates

- a. Graduate Student Experience Oyebanjo Lajubutu
 - i. Will focus on two frameworks.
 - 1. Time to degree for Master and PhD students. Will benchmark to national data.
 - 2. Hold focus groups to gather qualitative data to supplement the quantitative data obtained in the survey.
- b. Transfer Student Success and Engagement Lynn Stichnote
 - i. No update.
- c. Advising Center Models and Best Practices Tyrone Davidson
 - i. No update.
- d. Time to Graduation / Credit Hours Steve Raper
 - i. Developing research questions.

V. Announcements

- a. Laura Stoll Received CRI grant. \$50,000 for Hit the Ground Running and \$50,000 for Institutional Work Study.
- b. John Gallagher Delta Sigma Theta sorority will reactivate on Saturday, April 30 at 5 pm in EE G31. Everyone is invited to attend.
- c. Doug Ludlow The Alpha Chi Sigma professional chemistry fraternity recently held activities and a banquet. Approximately 80 people attended including a representative from National Office who is a 1970's chemistry alum.
- d. Rachel Morris The Honors Banquet is Sunday at 6 pm.
- e. Tim Albers There is a blood drive in progress.

VI. Committee Timeline

- a. Sep I, 2016 Biweekly meetings resume
- b. Sep 1, 2016 Presentations of subcommittee reports
- c. Sep 15, 2016 Presentation of subcommittee reports
- d. Sep 22, 2016 Final draft of subcommittee reports (narrative and slides) due to Rachel
- e. Sep 29, 2016 Rachel to send draft of final report to committee members
- f. Oct 4, 2016 Edits and corrections of final report due to Rachel
- g. Oct 6, 2016 Rachel to send final report to committee
- h. Oct 13, 2016 Rachel to send report to the Chancellor
- i. Oct 20, 2016 Student Success Committee presentation to the Chancellor, Provost, and VP&D or CASB and CEC

VII. Next Meeting - May 12, 2016

8:15 am – 9:15 am, Havener Center, Meramec Gasconade Room

Missouri S&T Student Success Committee Meeting



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September 1, 2016 8:15 am – 9:15 am Havener Center, Silver and Gold

Members Present:

Bridgette Betz, Carl Burns, Jeff Cawlfield, Steve Clark, Tyrone Davidson, Kate Drowne, John Easter, Cecilia Elmore, Patty Frisbee, John Gallagher, Larry Gragg, Deanne Jackson, Douglas Ludlow, Rachel Morris, John Myers, Stephen Raper, Lynn Stichnote, Laura Stoll

Ex Officio Members Present

Debbie Anderson, Angie Hammons, Erica Long, Adrienne Neckermann

Members Absent:

Tim Albers, Oyebanjo Lajubutu, Dorie Paine, Julie Pittser, Klaus Woelk

- I. Review and Approval of Minutes
 - a. Minutes were approved.
- II. Review timeline and changes
 - a. Jeff Cawlfield reviewed the timeline.
 - b. There will be an extra meeting on September 22 for presentation of subcommittee reports.
 - i. Sep 1, 2016 Biweekly meetings resume
 - ii. Sep 15, 2016 Presentation of subcommittee reports
 - iii. Sep 22, 2016 Presentation of subcommittee reports
 - iv. Sep 22, 2016 Final draft of subcommittee reports (narrative and slides) due to Rachel
 - v. Sep 26, 2016 Rachel to send draft of final report to committee members
 - vi. Sep 29, 2016 Edits and corrections of final report due to Rachel
 - vii. Sep 30, 2016 Rachel to send final report to committee
 - viii. Oct 6, 2016 Rachel to send report to the Chancellor
 - ix. Oct 20, 2016 Student Success Committee presentation to the Chancellor, Provost, and VP&D for CASB and CEC

III. Subcommittee Updates and Presentation Schedule

- a. Graduate Student Experience Adrienne Neckermann
 - i. Katie Jackson facilitated a focus group with MS and PhD students.
 - ii. As a result, graduate orientation is now held earlier.
- b. Transfer Student Success and Engagement Lynn Stichnote
 - i. The subcommittee is summarizing progress and developing recommendations for the presentation to the committee.
- c. Advising Center Models and Best Practices Tyrone Davidson
 - i. The subcommittee is researching advising center models used by other institutions.
- d. Time to Graduation / Credit Hours Steve Raper

i. The subcommittee is examining the data from Institutional Research and Assessment.

IV. Enrollment Updates and First Year Retention Projections

- a. Laura Stoll gave an update for enrollment FS 2016.
 - i. Enrollment is likely to be down just slightly at fourth week, up on campus and down off campus.
 - ii. As anticipated, graduate enrollment is down and undergraduate enrollment is up.
 - iii. 24% females in the new freshman class.
- b. Laura Stoll gave an update for first year retention projection.
 - i. What we saw FS 2015 to SP 2016 predicted a drop. Unofficially it looks like we will be 83% first to second year retention. Last year we were at 87%.
 - ii. Possible future task of this committee will be to identify causes for the drop.

V. Future Meeting Topics or Guest Speakers

- a. Possible topics were discussed for future meetings. Please send ideas to the committee chairs or Donna Luechtefeld.
- b. Student panel is scheduled for November 10.

VI. Announcements

- a. Jeff Cawlfield Introduced John Easter, new student member of the committee.
- b. Patty Frisbee Distributed save the date sheets for the Student Success Center and the Student Veterans Resource Center.
- c. Steve Raper The campus climate survey will launch on September 20.
- d. Jeff Cawlfield There will be a retirement reception for Laura Stoll on October 24.
- e. Laura Stoll Paul Borens with Ruffalo Noel Levitz will be on campus October 20 to present his annual report and make recommendations for leveraging financial aid.
- f. John Gallagher Applications for the Miner Challenge trip advisor close this week. Trips are planned for Nicaragua, Mississippi, Texas, Chicago, and Alaska.
- g. John Gallagher Residential life will conduct house calls September 6-13. Contact the residential life office if you'd like to participate.
- h. Laura Stoll The Student Success Committee membership roster has been submitted to the chancellor for approval.
- i. Angie Hammons The Teaching and Learning Technology Conference is scheduled for March 16-17, 2017.

VII. Next Meeting – September 15, 2016

8:15 am – 9:15 am, Havener Center, Silver and Gold Room

September 15, 2016 8:15 am – 9:15 am Havener Center, Silver and Gold

Members Present:

Bridgette Betz, Jeff Cawlfield, Steve Clark, Tyrone Davidson, John Easter, Cecilia Elmore, Patty Frisbee, John Gallagher, Larry Gragg, Deanne Jackson, Oyebanjo Lajubutu, Douglas Ludlow, Rachel Morris, John Myers, Stephen Raper, Laura Stoll

Ex Officio Members Present

Debbie Anderson, Angie Hammons, Erica Long, Adrienne Neckermann

Members Absent:

Tim Albers, Carl Burns, Kate Drowne, Dorie Paine, Julie Pittser, Lynn Stichnote, Klaus Woelk

I. Review and Approval of Minutes

a. Minutes were approved.

II. Graduate Student Experience Subcommittee Presentation

- a. Oyebanjo Lajubutu and Adrienne Neckermann presented the subcommittee report.
- b. Data collection and data integrity issues need to resolved.
- c. Results of the focus group
 - i. Funding.
 - ii. Advisor limbo.
 - iii. Lack of knowledge about how to maneuver as a graduate student.
 - iv. Grunt work.
 - v. Desire for increased graduate specific courses.
- d. Recommendations
 - i. Improve compensation and workload of graduate assistants to attract the best students.
 - ii. Improve compensation and workload of graduate assistants to attract the best students.
 - iii. Improve compensation and workload of graduate assistants to attract the best students.

III. Time to Graduation / Credit Hours

- a. Steve Raper presented the subcommittee report.
- b. The data gathered provides evidence regarding the percentage of students who get minors and that changing majors does not always significantly increase the number of hours required to graduate.
- c. The data is rich for further study.

IV. Student Panel

a. November 10, 2016.

- b. A diverse group of students will be invited to sit on the panel.
 - i. Send recommendations to Jeff Cawlfield, Laura Stoll, Rachel Morris, or Donna Luechtefeld.

V. Announcements

- a. Laura Stoll Alyssa McCarthy resigned from the committee. Laura shared a letter from Alyssa, which will be incorporated into the minutes. (See Attachment A).
- b. Steve Raper Please encourage everyone to complete the climate survey that will be released next week.
- c. Donna Luechtefeld The meeting on September 22 will be held in Carver Turner room, not in Silver and Gold as stated on the agenda.

VI. Timeline

- a. Sep 1, 2016 Biweekly meetings resume
- b. Sep 15, 2016 Presentation of subcommittee reports
- c. Sep 22, 2016 Presentation of subcommittee reports
- d. Sep 22, 2016 Final draft of subcommittee reports (narrative and slides) due to Rachel
- e. Sep 26, 2016 Rachel to send draft of final report to committee members
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- g. Sep 30, 2016 Rachel to send final report to committee
- h. Oct 6, 2016 Rachel to send report to the Chancellor
- i. Oct 20, 2016 Student Success Committee presentation to the Chancellor, Provost, and VP&D for CASB and CEC

VII. Next Meeting – September 29, 2016

8:15 am – 9:15 am, Havener Center, Carver Turner Room

ATTACHMENT A

From: McCarthy, Alyssa L. (S&T-Student)
Sent: Friday, September 09, 2016 10:02 AM
To: Luechtefeld, Donna <<u>dluechtefeld@mst.edu</u>>; Cawlfield, Jeffrey D. <<u>idc@mst.edu</u>>; Stoll, Laura K.<<<u>lstoll@mst.edu</u>>
Subject: Student Success Committee

All,

I just wanted to let you know that I will not be able to participate in the Student Success Committee this semester. I am having some health problems (nothing serious), but it will require to attend Physical Therapy at the time of the meetings.

I wanted to thank you for the experience of sitting on the committee these last few semesters. It has been a terrific opportunity to get to know some of the people who are working to make students at S&T more successful, and to be able to share that information with other students. I mention on all of my Campus Tours that I know administrators and professors care about student success because I've been sitting in there with them!

I also wanted to thank you for the influence the committee has had on my life. I am the poster child for the topics we discuss: students who are highly motivated and do excellent in high school, and then struggle at S&T. I spent quite a few years(and dollars) trying to force my way through engineering school before I realized that it simply wasn't for me. I changed my major last semester to Business and Information Science & Technology and have been much happier--I don't think I would have made this change without being on the committee.

Please share my gratitude with the other committee members! I am more than happy to suggest a few students I think would be great assets to the committee as well.

Thank you,

Alyssa McCarthy

Missouri University of Science and Technology Senior | Business & Management Systems

Chief Financial Officer | Mars Rover Design Team **Head Ambassador** | Office of Admissions