

RMU's School of Engineering, Mathematics, and Science (SEMS)

Strategic Plan 2014-19

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Robert Morris University Mission Statement

Robert Morris University is a student-centered institution that transforms lives by building knowledge, skills and citizenship, all of which focus on the achievement of one's personal and professional goals. Engaged learning, within a highly supportive environment, enables our students to develop strong communication skills, excel within collaborative settings, effectively address complex problems with innovative solutions, and lead with integrity and compassion throughout their lives and careers in a diverse and rapidly changing world.

Robert Morris University Vision Statement

Robert Morris University strives to become a recognized *best value* leader by providing a highly proactive student engagement learning environment that is focused on producing graduates of consequence and influence in their personal and professional lives.

SEMS Mission Statement

The School of Engineering, Mathematics and Science transforms lives by building knowledge, skills, and citizenship to prepare students for scientific and technical careers in a rapidly changing world. Our graduates effectively address complex problems with innovation and integrity. Our students benefit from personalized engaged learning, interdisciplinary education, enriched communication and business skills, and strong alliances with industry.

SEMS Vision Statement

School of Engineering, Mathematics, and Science graduates will combine solid technical skills with communication and enterprise skills to provide productive talent to organizations that employ them.

CORE VALUES

Academic Excellence

Changing Lives

Engaged Learning

Individuals Matter

Professional Focus

Global Perspective

RMU VALUE PROPOSITION

- Rigorous academics, professional focus and engaged learning
- Student Engagement and Communication Skills programs
- A highly talented and dedicated faculty and staff who drive the University Mission and live the Core Values
- Positive student outcomes – placement rate, graduate school, etc.
- Deliver exceptional value via reasonable price and discount rate

- A dynamic, living-learning, residential campus
- A safe, well-maintained campus
- New and improved facilities
- NCAA Division I sports
- Access to RMU programs for diverse populations in a variety of formats

EXECUTIVE SUMMARY

The 2014 – 2018 Robert Morris University strategic plan provides a comprehensive framework for building upon RMU’s considerable existing strengths in order to focus attention upon its opportunities, weaknesses and threats. The SEMS strategic plan is developed in support of the RMU mission and vision with strategic aspirations for the next five years.

The University realizes that it faces many significant challenges in the next five years and that it must proactively shape its future. It will do so via a University-wide strategic plan that is supported by coordinated unit-level plans and by an integrated budgeting process that addresses the strategic plan’s major priorities. All of the six major initiatives in the strategic plan, together with their respective goals, are directed towards fulfilling the University’s Mission in accordance with its Core Values and promoting its Value Proposition.

At the center of the plan is the concept of RMU providing transformational experiences for its students. This is highlighted by all students participating in engaged, experiential, and active learning both inside and outside of the classroom. Such a holistic educational approach directly supports the RMU Mission of preparing students for leadership in a rapidly changing world. This is done in full concert with statements on knowledge, application and achievement, and with consideration of value proposition to deliver exceptional education via reasonable price.

Initiative 1 contains goals that seek to improve the quality of RMU’s schools, majors and degree programs. This will be accomplished by continuing to maintain and promote its accreditations and engaged learning, strengthening outcomes assessment, quality assurance and the teacher-scholar model and accentuating the importance of online education, general education and library resources.

SEMS will maintain accreditation by Middle States Commission on Higher Education, maintain all professional program accreditations and similar designations, and evaluate additional accreditations/ designations as appropriate.

The goals associated with *Initiative 2* seek to build a distinct, quality identity for the University that will attract prospective students, provide a high quality college experience to current students and establish enrollment size targets for RMU. Student Life will continue to build on the great expansion of student programs and services carried out in the last strategic plan and is planning on 60% of traditional undergraduates being residential. By 2018 RMU plans to enroll 4,000 traditional undergraduates and a total enrollment of 7,000 students, with increased diversity in many aspects of its student body. Increasing undergraduate selectivity and quality will be a key driver of taking RMU to the next level of institutional quality and online enrollment will provide a large share of the incremental students called for under this plan. A focused, well-supported and successful Athletic program will be a key part of the RMU Value Proposition.

For the first time the strategic plan includes a human capital component. *Initiative 3* specifically recognizes the critical role that RMU’s staff plays in student success and the University’s intent to support those employees’ development and fulfillment.

Initiative 4 seeks to raise RMU’s facilities and information technology to the level of a competitive advantage via selective investments in renovations, new construction, remediation of deferred maintenance and technology infrastructure and applications.

Initiative 5 addresses the need to bring focus and recognition to RMU’s stature and presence in both existing and new markets via more and better marketing and promotion of its Value Proposition.

Initiative 6 proposes a new capital campaign to increase the durability of RMU’s financial position and to provide funds for pressing University needs. Gaining better insights into

unit-level financial contributions is an important aspect of the ongoing process of finding ways to provide good services at the highest efficiency and lowest cost possible. All of these measures seek to make RMU an excellent value in support of its Value Proposition.

2014-2018 SEMS STRATEGIC PLAN

INITIATIVES, GOALS, STRATEGIES AND MEASURES OF SUCCESS

<p><u>Initiative 1 –Advancing Academic Excellence</u></p> <p>Led by a talented and dedicated faculty, RMU’s academic programs strive to maximize opportunities for student success in academic achievement, career preparation, capacity for leadership and lifelong learning.</p>			
Goal	Department	Strategy	Measure of Success
<p><u>Goal 1 - Accreditations:</u></p> <p>RMU will maintain accreditation by Middle States Commission on Higher Education, maintain all professional program accreditations and similar designations, and evaluate additional accreditations/ designations as appropriate.</p>	SEMS	<p>Support RMU in maintaining Middle States regional accreditation and pursue/maintain program accreditations where appropriate.</p> <p>The signature Actuarial Science Program will maintain its designation as SOA Center of Actuarial Excellence.</p> <p>Engineering programs will maintain ABET accreditation.</p>	<p>Continue to implement SEMS Outcomes Assessment Plan and complete associated documentation on an annual basis. SOA re-designation renewed following Fall 2014 reapplication.</p> <p>ABET re-accreditation, visit Fall 2015.</p> <p>Additional accreditations as applicable: achieve ABET/EAC accreditation for stand- alone programs.</p> <p>Reallocation of resources to support accreditation requirements (facilities, equipment, technology needs, and human capital).</p> <p>Increase hiring of full-time faculty in accordance with accreditation requirements.</p>
	Engineering	<p>Continuously improve programs by employing existing FCARs.</p> <ul style="list-style-type: none"> ● Engage all constituencies, including, but not limited to Engineering Program Advisory Committee (EPAC) and Alumni. ● Establish a process with owner and accountability so that ABET related documents are updated electronically twice a year. ● Acquire the physical resources needed, facilities, and hardware and software tools. ● 	<ul style="list-style-type: none"> ● Achieve ABET/EAC re-accreditation in 2016. ● Achieve ABET/EAC accreditation for Mechanical, Biomedical, and Industrial in 2020. ● Increase square footage of facilities. Renovate facilities ● ● Increase faculty and staff comparable to .number of students enrolled

		<ul style="list-style-type: none"> ● Hire faculty and staff as required. 	
	Mathematics	<p>The Actuarial Science Program will maintain its designation as SOA Center of Actuarial Excellence.</p> <p>The department will continue to assist our RMU colleagues in achieving and maintaining accreditations. (Mathematics service and/or major courses impact ABET, TEAC, and AACSB accreditations).</p> <p>Increase outcomes assessment in relevant courses</p> <p>Seek opportunities for collaborative research between departments</p> <p>Create new courses and/or adjust course content as required</p> <p>Prepare for accreditation team visits</p>	<p>SOA accreditation renewed following Fall 2014 reapplication.</p> <p>Accreditation and re-accreditation of relevant RMU programs witnessed during 2014-2018.</p>
	Science	<p>Support existing accreditations for all programs in SEMS, including ABET, SOA and TEAC, as well as the RMU Middle State regional accreditation.</p> <p>Explore any possible accreditation for existing Science department degrees and programs where appropriate.</p>	<p>Maintaining accreditations by appropriate programs.</p>
	SEMS-ROC Outreach and Research (non-degree offering department)	<p>SEMS-ROC will support maintenance of all accreditations in SEMS.</p>	<p>Supporting efforts of SEMS departments in maintaining all existing SEMS accreditations.</p>
<p><u>Goal 2 - Student Learning Assessment:</u></p> <p>RMU will implement learning outcomes assessment throughout the curriculum and use the results of those assessments to achieve improvement in student learning.</p>	SEMS	<p>Continue to increase the number and quality of outcomes assessment measures utilized in SEMS courses.</p> <p>Implement multi-section outcomes assessment measures for appropriate courses.</p> <p>Provide appropriate instruction and counseling to enable students to pass state and national licensing examinations and to achieve appropriate benchmark standards for all programs that require licenses and professional certificates.</p>	<p>The number and quality of course level outcomes assessment in SEMS curriculum both for majors and core courses.</p> <p>Create school-wide assessment committee</p> <p>Achieve 2/3 of core sections covered by full-time faculty/lecturers thus having additional hires in the school.</p> <p>Use Praxis, MCAT, FE, CMfgT, actuarial exams and more as measure of achievement and improvement of learning.</p> <p>Achieve adequate school operating budget needed to offer strong support to the growing SEMS enrollment.</p>
	Engineering	<ul style="list-style-type: none"> ● Implement course level outcome assessment in each course. ● Implement an assessment plan to measure and document active learning and student engagement (in and out of the classroom). ● Provide appropriate instruction and counseling to enable students to pass state and national licensing examinations and to achieve appropriate benchmark standards for all programs that require licenses and professional certificates. 	<ul style="list-style-type: none"> ● Meet or exceed established benchmark standards for each course (each program) year after year. ● Using standardized measures, demonstrate enhanced information literacy skills in both general education and major fields. ● Continuous improvement in FE exam pass rates and the scores. ● ● Continuous improvement in CMfgT exam pass rates and

		<ul style="list-style-type: none"> ● Encourage students to take the FE and/or CMfgT exams and assist them by: <ul style="list-style-type: none"> ○ integrating FE-type and/or CMfgT-type questions and problems in curriculum ○ offering tutorial sessions ○ developing FE-exam and/or CMfgT-type review questions before actual exam 	the scores.
	Mathematics	<p>Continue to increase the number and quality of outcomes assessment measures utilized in mathematics courses.</p> <p>Implement multi-section outcomes assessment measures for appropriate courses.</p>	<p>The number and quality of course level outcomes assessment in the Mathematics Department.</p> <p>A multi-section outcomes assessment for MATH1010 maintained.</p> <p>The feasibility of implementing multi-section outcomes assessment in MATH0900, MATH2040 and STAT2110 decided; outcomes assessment implemented in one or more courses if appropriate.</p>
	Science	<p>Identify effective learning outcome measures at the course and program level and use the assessment results for continuous improvement.</p> <p>Develop more comprehensive program assessment for individual degrees and concentrations (pre-medicine and teacher certification).</p>	<p>Course assessments will be submitted at the end of each semester for courses offered during that year.</p>
	SEMS-ROC Outreach (non-degree offering unit)	<p>In collaboration with SEMS departments, the Outreach Center will create innovative and data-driven outreach events based on current trends in STEM education that enhance student learning in SEMS disciplines.</p>	<p>All student volunteers will complete a short online learning survey designed to assess knowledge gained in STEM through their participation in each SEMS event.</p>
<p><u>Goal 3 - Teacher-Scholar Model:</u></p> <p>RMU faculty will continue to exemplify the teacher-scholar model by:</p> <p>A. A commitment to high quality teaching;</p> <p>B. Pursuing active programs of research and scholarship;</p> <p>C. Incorporating their research into their teaching;</p> <p>D. Undertaking activities to assure currency in their field; and</p> <p>E. Including students in faculty</p>	SEMS	<ul style="list-style-type: none"> ● Explore the creation of teaching portfolio, peer evaluations, student evaluations and more to promote excellence in teaching. ● Provide adequate resources in the form of teaching load reductions, student assistantships, travel funds, professional society memberships, equipment, software, data and access to expertise to permit faculty to excel in research and applied scholarship, and incorporate it in teaching curriculum. ● Continue to produce high quality scholarship within the discipline while maintaining an emphasis on teaching. ● Enhance the level of funded research within the school. ● Provide support for faculty to participate in local, regional, and national conferences and programs designed to improve teaching effectiveness. 	<ul style="list-style-type: none"> ● Explore the mentorship program for new faculty. ● Establish a program for mentorship and support for part time faculty to assure their full commitment to excellence in teaching and outcome assessment process. ● Explore new opportunities for professional development along with online discussions, webinars, interactive lectures with national and international faculty, as well as, increasing the involvement of students in these events, including international, female and minority student populations. ● Implement a system of recognition for teaching excellence. ● Continuous support of faculty professional development. ● The number of scholarly articles accepted for publication in respected journals measured annually. ● The number of submissions for external funding for

<p>research projects where appropriate.</p>		<ul style="list-style-type: none"> ● Pursue collaborative research projects. ● Strong and continued support from Dean’s office and SEMS Research & Outreach Center. ● Reallocation of additional resources for travel and professional development including SEMS-ROC as a separate unit that supports excellence in teaching and research. <p>Increase in school operating budget to offer stronger support to faculty and students in their innovative research agendas and support their travel to conferences, etc.</p>	<p>research measured annually.</p> <ul style="list-style-type: none"> ● Current: external funding requests totaled \$1.879M with \$243K awarded. Reach \$ 2.50 M, and \$500K awarded. ● 12 (previous 9) different faculty members took the initiative to seek external funding and were listed as Principal Investigators on proposals last year. ● Interdisciplinary collaboration is a goal of SEMS and many of the proposals submitted reflect this emphasis. Measure the number of proposals that involve more than one academic department and faculty from separate schools at RMU. ● Track the number of SEMS faculty engaged in research with an industry partner. <p>Track the number of presentations by faculty in research and education-related conferences: currently annually faculty in SEMS publish up to 50 articles in national and international peer-reviewed journals, wrote grants, attended grant writing workshops, professional seminars and conferences.</p>
	<p>Engineering</p>	<p>A.</p> <ul style="list-style-type: none"> ● Continue to increase the number of full-time faculty ● Establish a mentoring process where new faculty will be mentored by senior faculty members to ensure new faculty has an understanding of their commitments as an institute faculty member. ● Establish a program where part time faculty members are mentored by full time faculty members so that teaching is facilitated and there is total commitment to quality teaching practices. ● Implement best practices in teaching where applicable. ● Provide adequate resources in the form of hardware, software and facilities to perform effective teaching practices. ● Implement a system of departmental recognition for teaching excellence. <p>B.</p> <ul style="list-style-type: none"> ● Provide adequate resources in the form of teaching load reductions, student assistantships, travel funds, professional society memberships, equipment, software, data and access to expertise to permit faculty to excel in research and scholarship. ● Encourage faculty to actively participate in SEMS ROC “research conversations” and SEMS ROC 	<p>Hire more faculty according to ABET accreditation requirements.</p> <p>Achieve high student performances in classes based on ABET requirements or higher.</p> <p>Achieve high faculty course evaluations (an average of 3.50/5.00 in minimum).</p> <p>Achieve higher numbers of scholarly works and grant applications (increasing 10% from current numbers annually in minimum)</p>

		<p>identified research opportunities.</p> <ul style="list-style-type: none"> ● Identify RMU incentives on an ongoing manner and promptly communicate them to the faculty. ● Encourage peer support and disciplinary and interdisciplinary collaboration. ● Implement a system of departmental recognition for research excellence. <p>C.</p> <ul style="list-style-type: none"> ● Encourage faculty to integrate their research, where/when possible into their teaching materials. ● Provide adequate resources to replicate research findings into classroom settings ● NSF funded and foundation funded projects will have a built-in component of students participation in the research. <p>D.</p> <ul style="list-style-type: none"> ● Encourage faculty to review their course text and course materials annually. ● Continue on-line library support in the engineering discipline. ● Participation in professional society activities, conferences, training opportunities, and arrange on-campus seminars on topic of contemporary importance. <p>E.</p> <ul style="list-style-type: none"> ● Encourage students to participate in appropriate faculty projects by providing SET credits. ● 	<p>At least 10% of the courses will have research incorporated in the first year to be increased by 5% every year in the plan.</p> <p>Each member to conduct at least two activities mentioned in strategies annually.</p> <p>25% students to satisfy SET requirements in research by the end of the strategic plan period</p>
	Mathematics	<p>Continue to produce high quality scholarship within the discipline while maintaining an emphasis on teaching. Enhance the level of funded research within the</p>	<p>The average number of scholarly articles accepted for publication in respected journals measured annually. Track the number of submissions for external funding for</p>

		<p>department.</p> <p>Provide support for faculty to participate in local, regional, and national conferences and programs designed to improve teaching effectiveness.</p> <p>Pursue collaborative research projects with actuarial firms.</p>	<p>research.</p> <p>One or more RMU Actuarial Science faculty engaged in research with an industry partner.</p> <p>Track the number of presentations by faculty at research and education-related conferences.</p>
	Science	<p>Provide resources to increase opportunities and further support faculty members in their scholarship.</p> <p>Explore and institute innovative teaching practices within the Science department.</p> <p>Integrate individual scholarship and research based practices in courses and labs.</p> <p>Teach courses in their area of expertise.</p> <p>Use scholarship to maintain credentials and currency in their field.</p> <p>Seek to increase student involvement in research.</p> <p>Be active in the field of their expertise.</p> <p>Explore development of a departmental program focused on improving teaching and incorporating current teaching practices. Program may include peer evaluation or other feedback mechanisms.</p>	<p>Increase conference presentation and publications.</p> <p>Department will support its faculty's attendance at relevant conferences and will monitor the % of its faculty that are supported and the number that seek support each year.</p> <p>Add courses to diversify curriculum and to take advantage of faculty expertise.</p> <p>Measure the number of students involved in research through senior thesis and/or independent projects. Measure the number of grants applied for and research presentations.</p> <p>Develop a comprehensive teaching evaluation program, potentially including peer evaluations, to assess instruction within the department.</p>
	SEMS-ROC Outreach (non-degree offering unit)	<p>Drawing upon the professional and scholarly expertise of SEMS faculty, the Outreach Center will continue to recruit SEMS faculty as instructors/facilitators for all Outreach events.</p> <p>Recruit SEMS faculty to assist in grant-writing opportunities related to Outreach events. .</p> <p>Since 2011, the Outreach Center has regularly sought the input of SEMS faculty in the creation and planning of all internal outreach events.</p> <p>The Outreach Center will offer at least 1 professional development workshop/event for SEMS faculty each semester. The Outreach Center staff will attend at least 1 national STEM conference per year, as well as 1 local/regional STEM conference, in order to facilitate planning of events and networking. Participation in the local Norwin/ASSET STEM Conference has proven to be very beneficial in these areas, as has attendance at the National Science Teachers Association STEM Forum & Expo. Participation in these conferences is vital for effective networking and development of new and innovative event offerings.</p> <p>The Outreach Center will assist all SEMS departments in coordination of on-campus student research presentation</p>	<p>The Outreach Center will measure success in this area by analyzing the number and discipline representation of faculty involved in the planning, preparation, and implementation of each outreach event. Our goal is to have faculty representation from all SEMS departments with each outreach planned and implemented.</p> <p>For example, we recently (February 2014) submitted two grants to the Sprout Fund to assist in funding Girls in STEM and Elementary Family STEM Night. A draft proposal is also under development for a \$250,000 grant (intended for the Benedum Foundation) for a hybrid teacher mentoring program merging concepts of STEM, art, and creativity.</p> <p>Most recently, planning committees have been formed for: Girls in STEM; Elementary Family STEM Night; Zombie Apocalypse Summer Camp; Science Bowl</p> <p>Explore new opportunities for professional development along with online discussions, webinars, interactive lecture with national and international faculty, as well as increasing the involvement of students in these events, especially our international and minority students</p> <p>The Outreach Center will continue to seek faculty participation and input in the development of all future applications for external funding. This will be measured by</p>

	SEMS-ROC Research	<p>symposia events.</p> <p>The Outreach Center staff believes in supporting professional development of faculty in SEMS. Not only is this essential for good teaching and effective scholarship, but also to assist in providing innovative and current STEM-based outreach events</p> <p>All departments have recently started offering scholarship-based events that showcase the work of students. These presentations and conference days provide a great deal of exposure of faculty/student collaboration and also demonstrate creativity. The Outreach Center will measure success by continuing to provide support.</p> <p>The development of collaborative research proposals within RMU as well as across institutions will be facilitated</p> <p>Publishing research outcomes in 'Research Highlights' newsletter</p> <p>Provide appropriate proposal and funding information for the faculty to facilitate proposal preparation process</p> <p>RMU faculty will be encouraged to incorporate their academic research in their teaching to enhance student learning.</p>	<p>the number and diversity of faculty participants from SEMS and across RMU. We will endeavor to incorporate faculty support from each SEMS department to create an integrated STEM focus to our projects as appropriate.</p> <p>Due to budgetary constraints, the Outreach Center will continue to pursue external funding and sponsorship opportunities in order to assist in funding our events.</p> <p>We will measure success in this area by evaluating the type and frequency of professional development offerings we assist in providing to faculty. These may include events such as: brown-bag lunch seminars, webinars, online discussions, etc.</p> <p>The Outreach Center staff also believes that maintaining currency in the field is essential on our part to effectively create and implement STEM-based events</p> <p>One-on-one meetings organized with faculty</p> <p>Research Conversations meetings</p> <p>Number of applications made for research funds</p> <p>Posters and publications made students presented at conferences or submitted to journals</p> <p>Participation in professional society activities and arrange on-campus seminars on topic of contemporary importance.</p> <p>Externally funded projects will have a built-in component of students participation in the research</p>
<p><u>Goal 4 – Engaged Learning:</u></p> <p>Engaged learning will be a comprehensive and integral part of an RMU undergraduate education, and students will have an opportunity to pursue experiential learning, international study, arts and cultural enrichment, service learning, undergraduate student research and leadership roles.</p>	SEMS	<p>Continue to pursue opportunities for student and faculty engagement in STEM-related activities.</p> <p>Pursue contacts with employers inside and outside of the Pittsburgh region as possible internship and full-time employers for RMU students and graduates.</p> <p>Increase student opportunities for research, hands on learning, and internships.</p> <p>Promote opportunities for our students to interact with professionals in the fields for which they are preparing via invited speakers and field trips.</p> <p>Encourage students to pursue internships, REU's, and professional preparation programs; enrich transformational education experience.</p>	<p>Successfully host conferences, workshops and expos in different fields, such as Environmental Science, Actuarial Career Day, outreach events and more.</p> <p>Documented student involvement in research projects.</p> <p>Strong presence of student clubs.</p> <p>Student participation in the annual Putnam Exam, exit survey, engineering professional exam, FE and more.</p> <p>Develop international and domestic field experiences.</p> <p>Work with office of student engagement to make students aware of opportunities campus wide.</p> <p>Reallocation of funds to support student activities/engaged learning.</p>
	Engineering	<ul style="list-style-type: none"> Engaged learning will be enhanced by creating opportunities for co-op experiences, internships, 	25% students to satisfy SET requirements in means mentioned by the end of the strategic plan period.

		<p>summer work, and course and capstone projects sponsored by local industries will be developed.</p> <ul style="list-style-type: none"> ● 	
	Mathematics	<p>Continue to pursue opportunities for student and faculty engagement in mathematics-related activities.</p> <p>Pursue contacts with actuarial employers outside the Pittsburgh region as possible internship and full-time employers for RMU students and graduates.</p>	<p>Successfully host the annual Actuarial Career Day, with at least 15 employers (at least 8 from outside the Pittsburgh area) and at least 40 non-RMU students.</p> <p>Documented student involvement in research projects.</p> <p>Strong presence of Actuarial Science Club continued.</p> <p>Student participation in the annual Putnam Exam initiated.</p>
	Science	<p>Increase student opportunities for research, hands on learning, and internships.</p> <p>Promote opportunities for our students to interact with professionals in the fields for which they are preparing via invited speakers and field trips.</p> <p>Encourage students to pursue internships, REU's, and professional preparation programs.</p> <p>Develop international and domestic field experiences.</p> <p>Work with office of student engagement to make students aware of opportunities campus wide.</p>	<p>Monitor and track the percentage of students participating in publishable research or presentations at regional, national, or international conferences.</p> <p>Monitor and track the number of students applying for and obtaining internships, REU's, and professional preparation programs.</p>
	SEMS-ROC Outreach (non-degree offering unit)	<p>The Outreach Center will continue to recruit students from all SEMS disciplines to assist in planning, preparation, and implementation of all Outreach events. Student participants will receive Student Engagement Transcript (SET) credits for their participation in Outreach events.</p>	<p>Measured based on student participation.</p> <p>Measured based on student participation and SET credits awarded.</p>
<p><u>Goal 5 – Learning Resources:</u></p> <p>The Library staff, collection, retrieval systems and instructional technology will provide faculty and students with enhanced support for teaching, learning and scholarship as well as attainment of information literacy.</p>	SEMS	<p>Encourage faculty and students to use library resources for research and teaching activities.</p> <p>Continue to identify current on-line library resources for SEMS established and new programs.</p>	<p>Work with Library personnel to monitor electronic library usage by faculty and students.</p> <p>Work with Library staff to identify most current sources of information to improve teaching and strengthen research agenda.</p>
	Engineering	<ul style="list-style-type: none"> ● Encourage faculty to use library resources for research and teaching activities. <p>Continue on-line library support in the engineering discipline.</p>	<p>Monitor electronic library usage by faculty and student staff and increase it annually.</p> <p>Monitor number of electronic resources for engineering and improve it by the need.</p>
	Mathematics	<p>Continue on-line library support in mathematics discipline.</p>	<p>Monitor electronic library usage by faculty and student staff</p>

			and increase it annually.
	Science	Maintain communication with library personnel to keep current resources available to students for communication skills intensive courses and research needs. Work with the IT department to improve classroom technology. Develop a list of important resources /instrumentation that will improve laboratory and classroom learning and use. Attempt to purchase and acquire items based on priority. Renew or increase library resources for science including adding one learning tool a month for student use.	Monitor and review science resources over the time period of the strategic plan. Track the acquisition of resources from department master list.
	SEMS-ROC Outreach (non-degree offering unit)	Not Applicable	
Goal 6 – Student Outcomes: The RMU curriculum and co-curricular activities will enhance students’ abilities in innovation, leadership, communications skills, critical thinking, problem-solving, integrity, character and other lifelong learning attributes and educational outcomes.	SEMS	Adapt the curriculum for SEMS programs in concert with changes in the corresponding profession. SEMS units will complete a comprehensive review and assessment of core classes, including assessment of core leaning outcomes. SEMS will review, revise, and develop program curriculum which incorporates innovative approaches, improves communication skills, continue to develop problem-solving and critical thinking skills and provide positive leadership opportunities for our students.	Documented success of alumni of Robert Morris University SEMS programs. Annual number of students passing actuarial, Praxis, FE, etc exams measured. Annual number of student internships and student teacher placement measured; student success publicized. Student participation in professional societies.
	Engineering	<ul style="list-style-type: none"> ● Encourage student participation in professional society activities. ● Encourage student participation in local, state and national engineering competitions – in programming, robotics, automotive/aerospace, energy and sustainability, manufacturing, BME design etc. 	Monitor student participation in professional society activities and increase them annually.
	Mathematics	Adapt the curriculum for department programs in concert with changes in the corresponding profession. Complete a comprehensive review and assessment of core classes taught by the Mathematics department, including assessment of core leaning outcomes.	Documented success of alumni of Robert Morris University Mathematics programs. SEMS UCC and UUCC course and program reviews. Annual number of students passing actuarial and Praxis exams measured. Annual number of student internships and student teacher placement measured; student success publicized. Monitor course and program student assessment and feedback.
	Science	The science department will review, revise, and develop program curriculum which incorporates innovative science,	Departmental discussions of programmatic changes.

		<p>improves communication skills, develops problem-solving and critical thinking skills and provides positive leadership opportunities for our students.</p> <p>Complete a comprehensive review and assessment of core classes taught by the Science department, including assessment of core leaning outcomes.</p>	<p>SEMS UCC and UCC course and program reviews.</p> <p>Improved and expanded integration of the communication skills intensive initiative.</p> <p>Monitoring course and program student assessment and feedback.</p> <p>Track student performance on professional exams (MCAT, Praxis, etc.) as a metric of program assessment. and outcomes (medical school acceptance, etc.).</p> <p>Track the number of students successfully placed in graduate or professional schools or jobs within their field.</p>
	SEMS-ROC Outreach	The Outreach Center will provide assistance to student organizations in SEMS in developing and implementing their own STEM-based outreach events. Student participation in these events enhances leadership and communication skills, as well as problem-solving, critical thinking, and attributes of lifelong learning.	Measured based on the number of student organization-led programs offered.
	SEMS-ROC Research (non-degree offering unit)	Engage students in research projects in collaboration with departments	<p>Develop opportunities for research intensive internships</p> <p>Support participation in conferences</p> <p>Publication of posters and papers</p>
<p><u>Goal 7 - Quality Assurance:</u></p> <p>RMU academic programs will maintain a consistent level of the highest quality across all modalities of instruction. Quality will be monitored, assessed and enhanced through accreditation standards, course and teaching evaluations and a regular cycle of program review.</p>	SEMS	<p>Encourage faculty from various departments to learn from each other regarding successes/disappointments of assessment process</p> <p>Increase number of full-time faculty teaching in majors in accordance with accreditation requirements.</p> <p>Increase number of full-time faculty in SEMS to allow for a minimum of 66.7% (i.e. 2/3) coverage of all mathematics department courses by full-time faculty and a minimum of 90% of all mathematics department courses at the calculus level or above.</p> <p>Strive to increase the proportion of courses taught by full time faculty to 60% for core classes (currently < 25%) and 75% for major courses (currently 50-60%).</p> <p>Complete periodic review for key department programs.</p> <p>Monitor teaching effectiveness on a regular basis.</p> <p>Continue to request updates and improvement to the facilities, technology, software, infrastructure and instrumentation to ensure that a consistent level of the highest quality education is being offered to our students.</p>	<p>Create SEMS school-wide outcome assessment or assurance of learning committee</p> <p>Evaluation (with admissions office) the optimum number of students in BS, Actuarial Science to determine future growth of the program.</p> <p>All accreditations maintained as described in Goal 1.</p> <p>Participation in all university teaching evaluation practices.</p> <p>Appraise faculty, staff, and student feedback and observations for opportunities to improve instruction.</p> <p>Conduct alumni and employer surveys.</p> <p>Utilize board of advisors for recommendations on areas of instruction and industry trends which affect employment opportunities for students.</p>
	Engineering	Program review is assessed via research grant proposals	Achieve high student performances in classes based on

		<p>developed, collaborations and publications. Conduct alumni and employer surveys. Engineering Program Advisory Committee reviews. Assessment of FCARs on an ongoing basis. Maintain ABET accreditations.</p>	<p>ABET requirements or higher. Achieve high faculty course evaluations (an average of 3.50/5.00 in minimum). Achieve positive/constructive feedback from advisory committees and implement in the curriculum and SET activities.</p>
	Mathematics	<p>Increase number of full-time Mathematics faculty at Robert Morris University to allow for a minimum of 66.7% (i.e. 2/3) coverage of all mathematics department courses by full-time faculty and a minimum of 90% of all mathematics department courses at the calculus level or above. Complete periodic review for key department programs. Monitor teaching effectiveness on a regular basis.</p>	<p>Addition of up to 4 full-time positions at the rank of Assistant Professor or higher and at least 1 position at the Lecturer level added. Number of Actuarial Science faculty maintained at 4 or higher, with one or more RMU Actuarial Science faculty at rank of FSA and two or more at rank of ASA. All accreditations maintained as described in Goal 1. Annual advisory board meetings held for the Actuarial Science and Mathematics Education programs. Participation in all university teaching evaluation practices.</p>
	Science	<p>The science department will continue to monitor and assess the quality of its programs and assist other departments and schools with their assessment initiatives. Appraise faculty, staff, and student feedback and observations for opportunities to improve instruction. Utilize its board of advisors for recommendations on areas of instruction and industry trends which affect employment opportunities for its students. Strive to increase the proportion of courses taught by full time faculty to 60% for core classes (currently < 25%) and 75% for major courses (currently 50-60%).</p>	<p>Increase hiring of full-time faculty Submit outcome assessment reports on an annual basis to ensure learning objectives are met. Monitor/ track student graduates and alumni from science department programs. Meet with board of advisors annually. Continue to request updates and improvement to the facilities, technology, software, infrastructure and instrumentation to ensure that a consistent level of the highest quality education is being offered to our students.</p>
	SEMS-ROC Outreach	<p>The Outreach Center will continue to collect program-specific data from participants, and restructure/modify future event offerings based on this feedback. The Outreach Center will continue to solicit the input from partnering K-12 schools, teachers, counselors, education professionals, and state/national STEM organizations in order to keep programming innovative, current, and aligned with standards.</p>	<p>Measured based on participant surveys, and the number of restructured program offerings. Meeting minutes/notes will be kept on each of these discussions and archived appropriately. Changes will be monitored in STEM, both in industry and in education, and all outreach programs will be updated and restructured to reflect these trends.</p>
	SEMS-ROC Research	<p>Maintain updated research grants applications database for SEMS A measure of quality assurance for each of the departments would be the numbers of research grant proposals</p>	<p>Number of cross-school and cross-institutional collaborations for grants proposals Number of research dollars and publications</p>

	(non-degree offering unit)	developed, collaborations and publications	
<p><u>Goal 8 – General Education:</u></p> <p>Through regular review and evaluation of undergraduate general education requirements, RMU will assure that its graduates have an appropriate foundation in the liberal arts and sciences as a support for career preparation and enhancement, further education and responsible citizenship in their chosen fields.</p>	SEMS	<p>Monitor instruction in all core courses and perform periodic review of associated success rates.</p> <p>Perform coordinated outcomes assessment across all sections of selected multi-section service courses.</p> <p>Provide feedback through the UCC concerning the core offerings in SEMS. Explore the possibility of offering RMU general education courses with a laboratory component.</p>	<p>Implement multi-section outcomes assessment.</p> <p>Identify full-time faculty dedicated to oversee each of the courses MATH1010, MATH1050, MATH2040, MATH2070, and STAT2110.</p> <p>Identify full-time science faculty dedicated to oversee each of the courses multiple sections.</p> <p>Develop additional offering in core including on-line option.</p>
	Engineering	<p>Contribute the review of general education requirements.</p> <p>Make students aware of ethics in research.</p> <p>Make students aware of academic integrity.</p> <p>Make students aware of team building and team work skills.</p> <p>Students interested in research will, undergo relevant IRB training if applicable.</p>	<p>Introduce an engineering course to the core (such as SEMS 1100).</p> <p>Monitor student performance in the core and engagement in activities mentioned above.</p>
	Mathematics	<p>Monitor instruction in all service courses and perform periodic review of associated success rates.</p> <p>Perform coordinated outcomes assessment across all sections of selected multi-section service courses.</p>	<p>Identify full-time faculty dedicated to oversee each of the courses MATH1010, MATH1050, MATH2040, MATH2070, and STAT2110.</p> <p>Implement multi-section outcomes assessment as described in Goal 2.</p> <p>One of the means to address student debt upon graduation and have a required 120 cr of instruction in each discipline.</p>
	Science	<p>The science department will continue to provide essential core course offerings in the sciences for other departments and schools.</p> <p>Provide feedback through the UCC concerning the core offerings in sciences.</p> <p>Explore the possibility of offering RMU general education courses with a laboratory component.</p>	<p>Review the number of courses and enrollment to identify the need for additional courses as appropriate.</p> <p>Submit course recommendations and propose new courses as needed.</p> <p>One of the means to address student debt upon graduation and have a required 120 cr of instruction in each discipline.</p>
	SEMS-ROC Outreach	<p>The Outreach Center will continue to support and coordinate the College in High School credits program in SEMS.</p> <p>In addition to on-campus laboratory sessions (science) there will be more online interaction with an RMU science</p>	<p>Measured by overall CHS student enrollment and school participation in the program.</p> <p>One of the means to address student debt upon graduation and have a required 120 cr of instruction in each discipline.</p> <p>Offer core courses to high schools/early freshmen program.</p>

		<p>faculty facilitator.</p> <p>Close curricular alignment with on-campus course sections (science).</p> <p>Exploration of adding new schools to the CHS program, both in science and engineering.</p>	
<p><u>Goal 9 – Innovation:</u></p> <p>RMU will pursue innovation in its academic mission in order to facilitate academic excellence and faculty and student success.</p>	SEMS	<p>Academic excellence and Innovation is promoted via conducting research supported by industry partners, foundations, other research institutions and federal agencies.</p> <p>SEMS Manufacturing Engineering recognition by President Obama Initiative on additive manufacturing-3D printing</p> <p>Work with SEMS-ROC to develop original programs for outreach and research.</p> <p>Engage students in research projects, enrich curriculum with applied concepts of the research.</p>	<p>Monitor output in scholarly works by all groups involved as well as intellectual property recognition.</p> <p>Measure the number of faculty members and students participating in research.</p> <p>SEMS leadership in workforce development and applied research in 3D Printing</p> <ul style="list-style-type: none"> ● Research output measured by publications such as books, papers, patents, presentations and projects/programs.
	Engineering	<p>Academic excellence and Innovation is promoted via conducting research supported by industry partners, foundations, other research institutions and federal agencies.</p>	<p>Continued and increased output in scholarly works by all groups involved as well as intellectual property (IP) recognition by at least one provisional patent a year by students and faculty.</p> <ul style="list-style-type: none"> ●
	Mathematics	<p>Explore alternative methods of mathematics placement practices.</p> <p>Explore technological aids and alternative approaches to remedial mathematics instruction for MATH0900.</p>	<p>At least one alternative placement testing program and/or remedial instruction package considered for effectiveness.</p> <p>Implementation of a system if deemed superior to the current approach (ALEKS).</p>
	Science	<p>The science department will explore development of Bioinformatics and/or Biotechnology minor / certificate, BS and MS levels if applicable.</p> <p>Improve the classroom technology and instrumentation in following areas in science: Molecular Biology, Genetics, Zoology, and Physics (strengthen).</p> <p>Continue to develop communication intensive courses in all majors offered.</p> <p>Work with SEMS-ROC to develop original programs for outreach and research.</p>	<p>Continue to implement “cradle-to-grave” approach, thus nurturing students from freshmen year to graduation and job placement.</p> <p>Strengthen established programs and continue to develop new programs.</p>
	SEMS-ROC Outreach	<p>The Outreach Center will continue to explore the development of new and innovative events. This will occur through novel collaborations between outreach staff, SEMS faculty, and outside partners.</p>	<p>Measured based on the number of new events created.</p> <p>Special focus on the followings areas will be a priority: attracting more females and minorities in STEM disciplines exploring new ways to hold interactive online events, including social media</p> <p>explore possibilities for holding events that involve national and international partners in STEM</p> <p>consistently monitor trends in STEM education, and</p>

	SEMS-ROC Research (non-degree offering unit)	Academic excellence is promoted via conducting research supported by industry partners, foundations, other research institutions and government agencies.	implement changes/modifications to STEM events Number of faculty members participating in research. Research output measured by publications such as books, papers, patents, posters and programs.
<u>Goal 10 – Online and Off-Campus Programs</u> RMU's online and off-campus programs will: 1. Offer programs of quality equal to RMU on-ground programs 2. Expand and contract to meet the needs of the market 3. Continue to enhance student services to online students 4. Grow to meet the desired enrollment goal of the institution 5. Utilize faculty members who are highly engaged and interested in providing online education according to the best practices in the field.	SEMS	Continue to support the RMU online initiative by providing needed online SEMS courses (both established and new requests). Expand online course offerings and programs. Develop online and on-ground certificate courses. Utilize faculty members engaged in best practices for online education as teachers in the online programs.	Explore potential online and off-campus program development including certificates and degrees in Environmental Studies, Land Management and Nutrition and/or M.S. in Actuarial Science degree. Where feasible, continue to develop on-line, hybrid and off campus courses for SEMS curriculum. Improve enrollment in MS, Engr management and future MS, Actuarial Science, offer on-line undergraduate degrees in sciences such as Envr Sciences (hybrid) or Envr Studies, etc. Explore hiring a faculty member dedicated to online teaching and online programs.
	Engineering	Expand online course offerings. Develop online and on-ground certificate courses. Utilize faculty members who are actively engaged in research will also be teachers in the online programs.	Increase courses offered online annually and monitor their outcomes by student performance and feedback on faculty teaching. Offer at least two on-ground, offline, or off-campus certificates by the end of the strategic plan period.
	Mathematics	Explore the possibility of offering an on-line M.S. degree in Actuarial Science. Continue to support the RMU online initiative by providing needed online mathematics courses (both established and new requests).	Written assessment of the feasibility and resource needs for an online M.S. in Actuarial Science degree. Implementation of such a degree if feasible and granted sufficient support. New and continued online course offerings within the department.

	SEMS-ROC Outreach (non-degree offering unit)	1-5. The Outreach Center will explore options for offering selected events in an online format. Targeted groups may include: regional K-12 teachers and/or college faculty, national or international educational audiences in STEM, or our own RMU faculty, staff, and students.	1-5. Measured based on online events created and offered. These events may be held via Skype, webinar, or other social media platform. Possible online offerings could include: teacher mentoring programs interactive student-to-student recruiting/mentoring programs (SEMS student to K-12 student), especially targeting girls and minorities online symposia offered by STEM professionals professional learning communities of K-12 teachers and college faculty online demonstrations of STEM-related laboratory techniques, especially in engineering and science online/hybrid STEM summer camps fostering the use of social media platforms to enhance the recruitment of new students into SEMS programs, increase connections with SEMS alumni.
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<u>Initiative 2 - Continue to Develop RMU as a “University of Choice”</u> Enhance the quality and level of engagement of student learning experiences to promote enrollment, retention, performance, graduation and outcomes of talented students from diverse backgrounds.			
Goal	Department	Strategy	Measure of Success
<u>Goal 1 - Student Opportunities:</u> Provide enrichment and co-curricular programs and services that promote students’ academic goals, personal and professional growth, health and wellness, and create a total living-learning environment that	SEMS	Foster existing agreements and develop new ones with companies/laboratories to offer internship opportunities, naming opportunities and more. Benefit from these agreements as recruiting tools. Support international education. Capitalize on SEMS international faculty, students and staff. Encourage their participation in teaching a foreign language especially for travel abroad program. Seek new opportunities for student activities, including possible internship sites, student teaching locations and	Additional support for student groups, such as ASME, NSBE, SWE, SEA and more via corporate relationships, financial support, training, etc. Strengthened ties with local firms and school districts currently providing internship and student teaching positions for RMU students. Students attending conferences and/or an RMU/SEMS hosted conference for enhanced college engagement transcripts. Invited visits by faculty from other institutions; guest speakers.

<p>prepares them for life, career, and leadership in a diverse and rapidly changing environment, all of which are captured as elements of the Student Engagement Transcript.</p>		<p>relevant study abroad programs. Inventory and document student activities appropriate for recognition on the Student Engagement Transcript. Continue to encourage student research and support students to present their work at professional conferences, seminars, workshops and more. The Outreach Center will explore possibilities of creating collaborative events with regional K-12 school districts to promote service-learning opportunities for students in STEM.</p>	<p>Student organizations more involved in recruiting by working with admissions for tours, etc. Engaged alums, stronger participation in SEMS future Help students to transition from high school to college and have a better freshmen experience on campus (Math-Science Boot Camp, mentoring, tutoring sessions and more). The Outreach Center will continue to provide service-learning opportunities for students to foster leadership, career opportunities, and academic growth. By recruiting students from all SEMS disciplines (including international students) to assist in planning, preparation, and implementation of all Outreach events, students will be engaged in a service-learning environment.</p>
	Engineering	<p>Forge stronger relationships between the Biomedical Engineering and other similar RMU programs. Biomedical Engineering students desire to create devices and enhance the simulation and applications for the dummies in the simulation lab. Incent additional student to work on mutually-beneficial projects for SET transcript credit, such as, giving student elective credits for research projects. Soliciting more corporate engineering projects for students to conduct undergraduate research. Additional support for student groups, such as, ASME, NSBE, and SWE via corporate relationships, financial support, corporate training, etc.</p>	<p>Interdisciplinary projects available for students. Students present their work at conferences and publish papers. Utilize research credit for collaboration between the two schools to work on projects of interest to the Biomedical Engineering Students. Number of students reporting their activities on their SET transcript. Evaluating and measuring the number of corporate student-relation projects; analyzing the feedback from both the corporate sponsor and students on the success of the project. Another measure of success would be the actual utilization of the student-engineered solution. Measure success by the numbers of active participants who engage or benefit from the relationship.</p>
	Mathematics	<p>Strengthen ties with local actuarial firms and school districts currently providing internship and student teaching positions for RMU students. Seek new opportunities for student activities, including possible internship sites, student teaching locations, and relevant study abroad programs. Inventory and document student activities appropriate for recognition on the Student Engagement Transcript.</p>	<p>The annual number of student internships, co-ops, and student teaching assignments measured. The annual number of students involved in travel abroad opportunities tracked. The annual number of students involved in undergraduate research monitored. Documented student research and service activities.</p>
	Science	<p>Continue to encourage student research and support students to present their work at professional conferences, seminars, workshops and more. Continue to encourage students to publish the research results. Promote more field research and utilize the newly developed research plots. Make sure that every graduate in the science program is well-</p>	<p>Implement requirements for undergraduate students to fulfill active learning experiences in the following areas by 2017: Cross cultural-international Internships/co-ops/student teaching/senior research Communications skills – communications intensive courses Service learning experience Pre-professional student organizations</p>

		<p>familiar and can use proficiently all state-of-the-art equipment we have.</p> <p>Foster existing agreements and develop new ones with companies / laboratories to offer internship opportunities, naming opportunities and more. Benefit from these agreements as recruiting tools.</p> <p>Support international education. Capitalize on SEMS international faculty, student, and staff. Encourage their participation in teaching a foreign language especially for travel abroad program.</p> <p>Take students to conferences and/or try to host our own conference to enhance college engagement transcripts.</p> <p>Invite faculty from other institutions; guest speakers.</p> <p>Student organizations get more involved in recruiting by working with admissions for tours, etc.</p> <p>Help students to transition from high school to college and have a better freshmen experience on campus (Math-Science Boot Camp, mentoring, tutoring sessions and more).</p>	<p>Monitor and assess the promotion and effectiveness of outreach projects such as the Science Bowl, workshops, seminars, conferences to promote Science to middle and high school students.</p> <p>Promotion and effectiveness of College to high school programs.</p>
	SEMS-ROC Outreach	<ul style="list-style-type: none"> ● The Outreach Center will continue to provide service-learning opportunities for students to foster leadership, career opportunities, and academic growth. By recruiting students from all SEMS disciplines (including international students) to assist in planning, preparation, and implementation of all Outreach events, students will be engaged in a service-learning environment. ● Student participants will receive Student Engagement Transcript (SET) credits for their participation in Outreach programs in order to assist meeting their SET transcript requirements. ● The Outreach Center will explore possibilities of creating collaborative events with regional K-12 school districts to promote service-learning opportunities for students in STEM. Events would include SEMS students as well as those at the K-12 level, working together in a collaborative fashion. ● Support students for their active participation in appropriate professional society activities 	<ul style="list-style-type: none"> ● Measured based on student participation. ● Measured based on student participation and SET credits awarded. ● Measured based on the number of events created and implemented.
	SEMS-ROC Research		<ul style="list-style-type: none"> ● Number of students volunteering for society activities, meetings, plant visits and professional development lectures

<p><u>Goal 2 - Enrollment:</u></p> <p>Increase enrollment, in concert with facilities and other infrastructure improvements, and change the student quality mix throughout the period of the strategic plan.</p> <p>A. Total enrollment – By fall 2018 RMU will enroll a total of 7,000 students in all market segments; 4,000 of those students will be traditional full-time undergraduates.</p> <p>B. Geographic diversity. Counter anticipated college-age population declines in RMU’s primary market area by increasing the geographical diversity of the student body.</p> <p>C. Female students – Increase the percentage of female students to 50% or more of undergraduate enrollment.</p> <p>D. International students – Increase the number of international students to 10% of total enrollment.</p> <p>E. Minority students. Increase the number of minority students at RMU to 20% of total enrollment.</p> <p>F. The freshman class. Recruit a freshman class with strong academic credentials (average verbal+math SAT score of 1,100)</p> <p>G. Graduate programs. Offer academically strong, market-driven masters and doctoral programs that produce highly qualified professionals for the 21st Century.</p> <p>H. Online/market segment -</p>	<p>SEMS</p>	<p>SEMS plans to sustain current enrollments with minor increases for on-ground undergraduate students but with main emphasis on increase at the graduate level and on-line learning (unless trends reverse), and undergraduate enrollment strengthen..</p> <p>Currently SEMS already has high achieving students and will continue to be selective in bringing students with most improved SAT/QPA.</p> <p>Work with admissions office to find additional ways to recruit SEMS students and improve recruitment pipeline.</p> <p>Continue to utilize SEMS-ROC to hold and conduct conferences, workshops, and activities that showcase experiments and activities to interest young girls in STEM education.</p> <p>Find innovative programs that will help to support diversity in the school.</p>	<p>SEMS will increase diversity among students, for example by recruiting more minority and international students. Currently SEMS has about 20% of international students enrolled mostly in engineering programs. SEMS has about 40% of RMU international students-170 students.</p> <p>SEMS will recruit more females: in engineering (increase from current 16.6% to 20%), sciences (from 52% to 58%), and mathematics (from 30.5% to 35%).</p> <p>Current SAT of incoming freshmen is 1176 in SEMS. Plan to increase to 1190. QPA is 3.76, with plan to increase it to 3.80.</p> <p>SEMS will create programs and enrollment strategies to support diversity in its programs.</p> <p>Create an Alumni Admissions Ambassador Program whose charge would be to host events in various places to market and recruit prospective Colonials.</p> <p>Begin target marketing on social media to increase the numbers of both the online and ground students in graduate and undergraduate programs.</p>
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<p>Online enrollment will be a major contributor toward attainment of a total enrollment of 7,000 total students by 2018.</p>			
	<p>Engineering</p>	<p>Create a Minority Engineering Program (MEP) at RMU. With such a program, RMU could attract more diverse groups such as African American, Latino, and Native American Engineering Students. This program would provide speakers, workshops, classes, tutoring, mentoring, and leadership opportunities for this population of students. In addition, the support available would be beneficial to International students.</p> <p>B. Provide Booths and tables at the National Society of Black Engineers and National Society of Hispanic Conferences to recruit top talent to attend RMU Engineering. The NSBE conferences attract pre-college, college, and professionals nationwide and around the world.</p> <p>C. Geographic diversity: Create an Alumni Admissions Ambassador Program whose charge would be to host events in various places to market and recruit prospective Colonials.</p> <p>D. Continue to utilize SEMS-ROC to hold and conduct conferences, workshops, and activities that showcase experiments and activities to interest young girls in engineering education.</p> <p>E. Forge partnership with International schools to serve as a pipeline to RMU Engineering.</p> <p>F. Offer more prestigious work opportunities, scholarships, and leadership training to attract such academically strong students.</p> <p>G. Target surrounding companies to conduct classes on site for their Engineers to obtain MS in Engineering Management degree.</p> <p>H. Begin Target marketing on Social Media to increase the</p>	<p>Creation of the MEP program here at RMU; recruitment, retention, and graduation of Engineering students from the program.</p> <p>Monitor number of conferences attended and improve annually.</p> <p>Monitor number of applications submitted and improve annually.</p> <p>Monitor number of students attending these conferences and improve annually.</p> <p>Measure the number of students from various geographic regions outside of Pittsburgh pipelined from the Colonial Alumni Admissions Ambassador Program and improves annually.</p> <p>Measure of student demographic from admissions application and improve annually.</p> <ul style="list-style-type: none"> ● Becoming an active GEM school and the numbers of students attending RMU on a GEM Fellowship who successfully graduate.

		<p>numbers of both the online and ground students in Engineering Management.</p> <p>I. Become a Gem Consortium University. The GEM Fellowships would attract top Minority candidates to attend RMU for both Engineering and Technology.</p>	
	Mathematics	Continue to recruit high quality students.	<p>25-30 Actuarial Science students enrolled annually, with an average Math SAT of 650 and an average combined SAT of 1250+.</p> <p>15+ Applied Mathematics majors (B.S. and B.A. combined) enrolled annually, with an average combined SAT of 1120.</p>
	Science	<p>The science department will continue to work with the admissions office to recruit high quality students, including from outside the 5-county area.</p> <p>Develop programs to specifically target female, international and minority students with recruiting efforts.</p> <p>Consider development of new programs, as appropriate, to increase enrollment, including investigating potential online, hybrid and off campus programs.</p> <p>Investigate any potential graduate programs that could be developed by the Science department consistent with the RMU mission.</p> <p>Develop target enrollment plans for Science department programs: 60 students for Environmental Science (15/year) and 180 students for Biology (45/year).</p>	<ul style="list-style-type: none"> ● Maintain a stable and growing enrollment within Science programs. ● Track the number of female, international and minority applications and matriculates.
	SEMS-ROC Outreach	<p>The Outreach Center will collaborate with all SEMS departments and the Dean’s Office to create promotional materials, promote SEMS programs, and engage targeted groups of students in our outreach events as part of a larger comprehensive recruitment plan for SEMS. We will continue to focus on recruiting females, minority students, and international students into SEMS programs.</p> <p>The Outreach Program will explore new opportunities for student recruitment in SEMS programs.</p> <p>increase online marketing and use of the SEMS Facebook page, as well as other types of social media</p> <p>created targeted recruitment events specifically for females and minority students (similar to our current Girls in STEM event)</p> <p>offer ideas and assistance in updating and marketing of SEMS webpages</p>	<p>SEMS views the Outreach Center as a pipeline for recruiting new students into SEMS program. This has been a vital role for outreach in recent years and will continue to be in the future.</p> <p>Success will be measured in this area as indicated by the number of students enrolled in SEMS programs, especially women, minorities, international, and geographically diverse populations.</p> <p>As technology continues to evolve, pathways for student recruitment must continue to change as well. Success in this area will be measured based on the number of new and innovate types of recruiting tools we can utilize to attract students into SEMS programs. There will be a distinct focus on utilizing a variety of online means to reach to targeted student populations.</p>

		<p>explore the possibility of webcasting brown-bag lunch seminars and research presentations in SEMS</p> <p>explore the possibility of adding faculty podcasts or videos to the SEMS webpages.</p>	
<p><u>Goal 3 - Residential Students</u></p> <p>Provide facilities, services and programming for 2,400 residential undergraduate students, 60% of total traditional age undergraduate enrollment.</p>	SEMS	<p>SEMS will continue to support programming efforts targeted towards residential students, including international students in SEMS.</p> <p>SEMS will explore with Student Affairs the possibility of creating a living/learning STEM cohort for prospective high school students or by discipline.</p>	<p>Measure based on the number of programs offered that are targeted to residential students. Help to increase number of residential students to desired 60%.</p> <p>Measured by the creation and successful implementation of a living/learning cohort program including one example: designated nature trail.</p>
	Engineering	Create a dorm or living space for engineering students in the existing dorms.	Monitor the numbers of engineering students living in the Engineering dorms or designated engineering blocks; also measure the interactions and dorm projects for annual improvements.
	Mathematics	Department will support SEMS initiatives.	See above
	Science	The science department will develop the RMU nature trail as a resource of student recreation, athletics and student engagement.	Creation of designated nature trail with map and interpretive guide.
	SEMS-ROC Outreach and Research	<p>The Research and Outreach Center will continue to support programming efforts from SEMS departments targeted towards residential students, including international students in SEMS.</p> <p>SEMS-ROC will explore with Student Affairs the possibility of creating a living/learning STEM cohort for prospective high school students.</p>	<p>Measured based on the number programs offered that are targeted to residential students.</p> <p>Measured by the creation and successful implementation of a living/learning cohort program.</p>
<p><u>Goal 4 - Retention and Graduation Rates:</u></p> <p>Improve RMU's freshman retention and 6 year graduation rates to aspirational college levels (85% or higher for retention rate and 65% or higher for graduation rate) through more selectivity and provision of exceptional student</p>	SEMS	<p>Support maintenance of 85% graduation rates benchmark.</p> <p>Seek ways to increase the success of service courses.</p> <p>Institute additional after-hour tutorials, reviews for exams, projects, and more.</p> <p>Track student progress before, during and after their experience at RMU.</p> <p>Continue to conduct faculty advising meetings.</p> <p>Review student progress in departmental meetings and help student who may need help and guidance.</p>	<p>Work with institutional research office to compile historic data to help support the initiative.</p> <p>The Freshman to Sophomore retention rate will increase to 85% in 2017.</p> <p>The six-year graduation rate will increase to 65% in 2017.</p> <p>Encourage and support senior and proficient students to mentor freshman and other students requiring help.</p> <p>Maintain and/or enhance student retention and graduation rates by 5% relative to 2010-2012 baseline rates.</p> <p>Continue to develop a comprehensive database of enrolled</p>

support services.			students to more accurately track retention and graduation rates.
	Engineering	Support maintenance of 85% graduation rates benchmark. Continue to conduct faculty advising meetings. Review student progress in departmental meetings and help student who may need help and guidance.	Monitor rates mentioned and improve or keep stable annually.
	Mathematics	Continue to successfully recruit talented students for all mathematics-related programs. Seek ways to increase the success of service courses. Track student progress before, during, and after their experience at RMU.	Achievement of targeted retention and graduation rates for department majors by 2018. 25-30 Actuarial Science students enrolled annually, with an average Math SAT of 650 and an average combined SAT of 1250+. 15+ Applied Mathematics majors (B.S. and B.A. combined) enrolled annually, with an average combined SAT of 1120. Department committees initiated to oversee the various service courses. Learning objectives clearly delineated for these courses. Achievement of 70% or higher "success" rate (grade C or higher) in multi-section service courses. Multi-section outcomes assessment tool in MATH1010 used annually in efforts to improve the success of this important service course.
	Science	The science department will institute additional after-hour tutorials, reviews for exams, projects, and more Encourage and support senior and proficient students to mentor freshman and other students. Maintain and enhances student retention and graduation rates by 5% relative to 2010-2012 baseline rates. Track student progress before, during, and after their experience at RMU. Develop a comprehensive database of enrolled students to more accurately track retention and graduation rates.	The Freshman to Sophomore retention rate will increase to 85% in 2017. The six-year graduation rate will increase to 60% in 2017. Continue to assist students to find employment or go to graduate school. Then use this employment rate as a further recruitment tool. The Science department will work with Institutional Research to compile accurate data for retention and graduation rates.
	SEMS-ROC Outreach and Research	Not applicable	In support of SEMS Initiatives
<u>Goal 5 - Quality Assurance and Outcomes:</u> Improve quality of services and	SEMS	SEMS will continue to participate in University sponsored assessment instruments, including NSSE and SSI. Examine and use the findings from these instruments to enact programs and course changes to increase student outcomes.	Monitor progress on NSSE and SSI relative to benchmark institutions. Create exit survey for graduating students to assess student satisfaction.

resources to levels comparable with benchmark institutions by using local and national outcomes assessment instruments (NSSE, SSI and others) to measure engagement, satisfaction, expectations, and national standards and by using the results to support, evaluate and improve the effectiveness of campus services, placement rates and academic and co-curricular engagement.			
	Engineering	Engineering department will support the use of any data collection measures implemented by RMU or SEMS.	Effectively obtain data and information needed on annual basis.
	Mathematics	Not applicable	Not applicable
	Science	The science department will continue to participate in University sponsored assessment instruments, including NSSE and SSI. Examine and use the findings from these instruments to enact programs and course changes to increase student outcomes. Explore the possibility of offering RMU core courses with a laboratory component, consistent with benchmark institutions. Create a database for alumni including post-graduation outcomes (employment, graduate school, etc.).	Monitor progress on NSSE, SSI and CLA relative to benchmark institutions. Create exit survey for graduating students to assess student satisfaction.
	SEMS-ROC Outreach and Research	The Research and Outreach Center will support the use of any data collection measures implemented by RMU or SEMS.	Successful implementation of chosen assessment instruments.
Goal 6 – Athletics: Provide support for all athletic programs to regularly compete for Conference Championships, with several sports excelling at the Regional or National level. Of equal priority, explore new strategies to promote academic excellence; student-athlete personal development; and gender equity and diversity.	SEMS	SEMS will continue to support student athletes. SEMS departments will assure timely feedback on student performance in classes or issue arising to the Athletics Department.	<ul style="list-style-type: none"> Monitor student progress and improve by checking student athlete progress reports by faculty members.

	Engineering	<ul style="list-style-type: none"> Engineering department will support student athletes. Engineering department will assure timely feedback on student performance in classes or issue arising to the Athletics Department. 	<ul style="list-style-type: none"> Monitor student progress and improve by checking student athlete progress reports by faculty members.
	Mathematics	same	same
	Science	same	same
	SEMS-ROC Outreach and Research	Not applicable	
<p><u>Goal 7 – Value and Affordability:</u> Continue to align and promote RMU’s affordability with its increasing value proposition while also monitoring the affordability of other private universities in its comparison group.</p>	SEMS	<p>Continue to align and promote RMU’s affordability with its increasing value proposition.</p> <p>Generate grants to provide scholarships to research students to increase value and affordability.</p>	<ul style="list-style-type: none"> 120 credit degrees. CHS, early freshmen program, dual enrollment, reverse degrees and more. Work with Institutional Advancement on obtaining more scholarships for students. Monitor amounts given to students outside university resources.
	Engineering	<ul style="list-style-type: none"> Generate grants to provide scholarships to research students to increase value and affordability. 	<ul style="list-style-type: none"> Monitor amounts given to students outside university resources and keep stable or increase annually.
	Mathematics	same	same
	Science	same	same
	SEMS-ROC Outreach	Not applicable.	
	SEMS-ROC Research	Generate grants to provide scholarships / graduate assistantships to research students to increase value and affordability for education	Number of grants generated and number of students supported and engaged by research-based grants

<p><u>Initiative 3 – Continue to Develop RMU as an Employee “University of Choice”</u></p>			
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<p>RMU will attract, motivate, retain and develop talented employees as part of its Value Proposition. The achievement of those employees' personal goals will also contribute towards attainment of the University goals. RMU will gain a sustainable competitive advantage through our employees and culture.</p>			
Goal	Department	Strategy	Measure of Success
<p><u>Goal 1 – Supportive Environment:</u> Provide an environment that enables all employees (faculty, staff, and administrators) to grow and reach their full potential while making positive contributions toward achievement of the University's mission. Clearly show how the employees' work has value and aligns to the goals of the University.</p>	SEMS	<p>Faculty and staff play crucial roles in the success of the school. Focusing on supporting their professional development to perform their daily jobs successfully will be an emphasis for the upcoming years of the strategic plan. Poll faculty and staff members on their experiences annually or biannually. Define strategically organizational structure of the school.</p>	<p>SEMS will investigate the development of a mentorship program for new faculty hires. Promote the idea within the University of the formation of a "Teaching Academy" for faculty that will serve as a resource for all faculty members and instructors. Meet or exceed benchmark in most of criteria set forth in professional growth based on the feedback received. Develop a succession plan for key positions in the school.</p>
	Engineering	<ul style="list-style-type: none"> ● Poll faculty and staff members on their experiences annually or biannually. <p>Use poll results to provide opportunities to the faculty and staff members.</p>	<ul style="list-style-type: none"> ● Meet or exceed (>=60% are positive responses) benchmark in most (80%) of criteria set forth in professional growth based on the feedback received. <p>Multiple lacking points discovered are addressed annually.</p>
	Mathematics	Support of SEMS initiatives	Support of SEMS initiatives
	Science	The science department will investigate the development of a mentorship program for new faculty hires.	Promote the idea within the University of the formation of a "Teaching Academy" for faculty that will serve as a resource for all faculty members and instructors.
	SEMS-ROC Outreach	Not applicable	
	SEMS-ROC Research	Provide stimulating environment for faculty and staff to achieve their career goals and professional development.	Create a survey tool to find out what people think about the opportunities provided by RMU for their career growth.
<p><u>Goal 2 – Enable a Greater Amount of Employee Time to be Spent on Transformative Work:</u></p>	SEMS		

Through process improvements, elimination of non-value added work, providing appropriate tools, automation/ computerization of manual processes, leveraging of Enterprise Systems, etc., reduce the amount of time employees must spend on transactional work to release additional time for talent power on transformational work.			
	Engineering	<ul style="list-style-type: none"> Associate strategic plan with faculty and staff growth through various enhancement opportunities including internal and external training or development opportunities. Help each faculty member with two society memberships annually. <p>Reward employees who are active in improving themselves in general and in more associated ways with the strategic plans.</p>	<p>>= 60% of the employees should have at least one opportunity for enhancement completed.</p> <ul style="list-style-type: none"> >= 30% of the employees should have at least two opportunities for enhancement completed. <p>>= 10% of the employees should have at least three opportunities for enhancement completed.</p>
	Mathematics	TBD	TBD
	Science	TBD	TBD
	SEMS-ROC Outreach	Same as Initiative 1, Goal 3, Part D.	Same as Initiative 1, Goal 3, Part D.
	SEMS-ROC Research	Professional development of the faculty is achieved through their summer research experiences, professional society training activities and technical/scientific conferences.	Number of summer internships, research projects, conferences, and professional society memberships and attendance.
<p><u>Goal 3 – Institutionalize Communication Norms:</u></p> <p>Reinforce the University’s commitment to open, candid, honest and respectful communications, and inviting a healthy debate of differing points of view.</p>	SEMS		

<p>Approach issues as an opportunity to jointly solve a problem, not place blame, and promote a culture of active listening to others that involves responding with empathy. Minimalize organizational secrets or surprises. Provide frequent and varied opportunities for employees to learn about the University as well as engage in improvement efforts with their ideas and other inputs.</p>			
	Engineering		
	Mathematics		
	Science		
	SEMS-ROC Outreach	Same as Initiative 1, Goal 3, A-D.	Same as Initiative 1, Goal 3, A-D.
<p><u>Goal 4 – Recognize and Appreciate the Contribution of Employees:</u> As a normal operating procedure, the University will honor employee contributions, respect their opinions, value their individual differences and appreciate their work efforts. Senior leadership will understand the contributions made by employees to the University and thank employees</p>	SEMS	<p>Make commitment for employee empowerment. Survey ideas from faculty and staff.</p>	<p>Create a taskforce to develop this strategic initiative in more detail. Choose and apply at least two or three feasible ideas generated by the employees annually.</p>

<p>in a sincere, meaningful way. Supervisors and co-workers will recognize and point out employee contributions and celebrate them simply in the moment.</p>			
	Engineering	<ul style="list-style-type: none"> ● Use school and departmental retreats. ● Make committees for employee empowerment. <p>Have idea collection boxes or Internet forms to gather ideas from faculty and staff.</p>	<ul style="list-style-type: none"> ● Collect at least 10+ ideas annually. <p>Choose and apply at least two - three feasible ideas generated by the employees annually.</p>
	Mathematics	TBD	TBD
	Science	TBD	TBD
	SEMS-ROC Outreach	<p>Continue to include SEMS faculty in the planning, development, and implementation of all Outreach events. This will include the development of event planning committees, as well as the possibility of the creation of an internal STEM Event Outreach Survey to assist in providing feedback and future directions to the program.</p>	<p>Measured based on faculty participation and feedback.</p>
	SEMS-ROC Research	<p>Create an environment where faculty can meet and talk about their research and exchange ideas.</p> <p>Provide support to the faculty who are interested in making grants applications by reviewing their proposals and coordinating any other assistance they may need such as developing budgets and budget justifications.</p> <p>Establish personal connections with faculty to provide them any support they may need to development their research agenda.</p>	<p>Organization of team meetings to discuss research opportunities.</p> <p>Conduct individual meetings with SEMS faculty to provide support.</p>
<p><u>Goal 5 – Providing Students an Environment that Supports Transforming Their Lives:</u> Employees will facilitate enabling students to grow and succeed by demonstrating excellence in performing their work duties and being passionate in providing service to students.</p>	SEMS	<p>Employees who are invested in student success.</p> <p>Opportunities for students and student clubs to engage in transformative activities outside the classroom.</p> <p>Continue to develop and support clubs and student organizations to provide students with leadership and professional opportunities.</p>	<p>Providing personalized and nurturing environment that helps students to reach their best potential while at the university and later in their careers.</p>

Employees will strive to continuously improve the student experience.			
	Engineering	same	same
	Mathematics	same	same
	Science	The science department will provide opportunities for students and student clubs to engage in transformative activities outside the classroom. Continue to develop and support clubs and student organizations to provide students with leadership and professional opportunities.	same
	SEMS-ROC Outreach Research	same	same

<p><u>Initiative 4 – Develop RMU’s Living and Learning Infrastructure into a Competitive Advantage for the University</u></p> <p>Sustain and enhance RMU’s resources and infrastructure including physical plant and information technology systems. The University will focus on providing facilities that are safe, sustainable, accessible, reliable and aesthetically pleasing with the goal of carrying out RMU’s Mission.</p>			
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Goal	Department	Strategy	Measure of Success
<p>Goal 1 – Master Plan: Update and obtain necessary approvals for the University’s Moon Campus Master Plan in accordance with the 2014-2018 Strategic Plan.</p>	SEMS	<p>SEMS is the only school that does not have the designated building, the suggested renovation of JJ will give SEMS an opportunity to obtain current state-of-the art facilities and attract high quality students and faculty to RMU.</p> <p>As part of the RMU Master Plan, we suggest that strong consideration be given for the building of a large-scale event facility for variable use.</p> <p>SEMS will provide any assistance requested for the creation/modification of the Moon Campus Master Plan.</p>	<p>Continue to advocate for renovated SEMS facilities, including office space, classrooms, laboratories and more to address enrollment growth in the school.</p> <p>To have facilities commensurate with SEMS programs at competing institutions.</p> <p>As a result to current limitations in use of Sewall center: in the last 12-18 months SEMS Outreach has lost several large (500+ participants) events due to unavailable facility space total loss of events has equated to the loss of at least 2000-3000 prospective high school students</p>
	Engineering	Continue to advocate for expanded engineering facilities, including office space, classrooms and laboratories to keep pace with student growth in engineering.	To have facilities commensurate with engineering programs at competing institutions with similar enrollment for engineering.
	Mathematics	same	same
	Science	The science department will provide any aid and assistance requested for the creation/modification of the Moon Campus Master Plan.	Reports and assessments submitted to the Dean’s office or facilities, as requested.
	SEMS-ROC Outreach	<p>Work with SEMS departments and the Dean’s Office to ensure that the John Jay Center renovation includes: adequate facility space for outreach events a permanent storage/office facility for outreach supplies, and office space for the Outreach Manager.</p> <p>As part of the RMU Master Plan, we suggest that strong consideration be given for the building of a large-scale event facility for variable use. As a result to current limitations: in the last 12-18 months SEMS Outreach has lost several large (500+ participants) events due to unavailable facility space loss of events has equated to the loss of at least 2000-3000 prospective high school students The loss of event space is a major concern for the future growth and success of the SEMS Outreach Program.</p> <p>When needed, contribute to the planning process for future labs and the expansion and updating of current labs and research equipment.</p>	<p>Measured based on the final plans for the John Jay Center renovation as well as those for RMU.</p> <p>Give inputs to the facility planning process.</p>

	SEMS-ROC Research		
Goal 2 – Deferred Maintenance: Continue to monitor all RMU infrastructure in order to identify and proactively manage deferred maintenance issues. Maintain RMU’s existing infrastructure, including existing residence halls, to ensure reasonable life expectancy, safety, reliability of normal operations and aesthetic value.	SEMS	Support university in this initiative. Not applicable - See departments	Not applicable - See departments
	Engineering	Budget required funds to maintain and update equipment in learning factory to keep labs current and relevant.	All major equipment and systems are in working order with proper calibration and maintenance checks.
	Mathematics	Not applicable	Not applicable
	Science	The science department will assist with the identification and management of any maintenance issues within John Jay and other academic buildings.	Reports and communication between faculty/staff within Science and facilities personnel.
	SEMS-ROC Outreach	The Outreach Center will work closely with Conference and Facility Services to insure that all events held at RMU facilities do not damage the venue, and are clean upon completion of the event.	Measured based on the need for facility maintenance after the event.
Goal 3 –New Construction and/or Major Renovations: Quantify the scope and funding sources for RMU’s capital improvements over the period of the Strategic Plan in accordance with the Moon Campus Master Plan, with a particular focus on these projects: 1. The School of Nursing and Health Sciences Building 2. (tie) John Jay Center renovations and a new student recreation building 4. New student housing (approximately 500 beds) 5. Athletic facility upgrades	SEMS	SEMS will provide any needed information for the construction/renovations of John Jay Center. Develop a comprehensive needs assessment to assist with the planning of John Jay renovations. Develop a comprehensive inventory of current educational and research equipment and instrumentation in John Jay. Work with construction planners to enhance SEMS facilities without loss of existing space and capabilities. Reconfigure existing space to the outmost efficient use.	Completion of master inventory and needs assessment by departmental faculty. Maintain current office, classroom and lab space. Use new construction and renovations to increase SEMS space both teaching and research. Maintain a comfortable capacity for all classrooms/ seating capacity. New computer laboratory established. Identification of new discipline specific classrooms. Adequate faculty/student lounge provided. Dedicated office hours room and placement testing/ remedial instruction lab established.

	Engineering	<ul style="list-style-type: none"> ● Work with construction planners to enhance engineering facilities without loss of existing space and capabilities. Reconfigure existing space to allow all hours access to computers and other resources Additional facility space should include: <ul style="list-style-type: none"> ○ Biomedical Engineering Lab ○ Mechanical Engineering Lab ○ Software Engineering Lab ○ Mechatronics Lab ○ Student Lounge for after-hours collaborations and study sessions ○ Student club meeting/work space with storage for club materials and resources. <p>Engineering adjunct shared office</p> <ul style="list-style-type: none"> ○ ○ Engineering faculty lounge/conference room large enough to accommodate entire department plus project growth in staff. 	<ul style="list-style-type: none"> ● Improve current office, classroom and laboratory space. ● Use new construction and renovations to increase engineering resources for both teaching and research with a significant increase in square footage containing the items specified in previous column. <p>Maintain a comfortable capacity for all classrooms so that each student enrolled has a chair, desk and computer.</p>
	Mathematics	Build or renovate academic space for existing and future Mathematics/SEMS program needs.	<p>New computer laboratory established.</p> <p>Identification of new mathematics-dedicated classrooms optimized for instruction of department courses. These include ample blackboard space for lectures and student work.</p> <p>Adequate faculty/student lounge provided, with ample blackboard space for large study groups.</p> <p>Dedicated office hours room and placement testing/ remedial instruction lab established.</p>
	Science	<p>The science department will provide any needed information for the construction/renovations for the John Jay Center.</p> <p>Develop a comprehensive inventory of current educational and research equipment and instrumentation in John Jay.</p> <p>Develop a comprehensive needs assessment to assist with the planning of John Jay renovations.</p> <p>Develop 4 new laboratories and a greenhouse for the current and future needs of RMU students.</p>	Completion of master inventory and needs assessment by departmental faculty.
	SEMS-ROC Outreach	<p>Not applicable</p> <p>Work with SEMS departments and the Dean's Office to ensure that the John Jay Center renovation includes: a permanent storage/office facility for outreach supplies, and</p>	Measured based on the final plans for the John Jay Center renovation.

		<p>office space for the Outreach Manager. Since 2011, the SEMS Outreach Manager's has been relocated several times, with the loss of accessibility and storage each time. In order to effectively engage with SEMS faculty and outside partners, a permanent office/storage facility in John Jay is needed.</p> <p>increased use of facilities in the Sewall Center and the John Jay Gymnasium has significantly restricted our outreach efforts in the last 18 months. We have encountered scheduling conflicts with nearly all large events (over 50 participants) . Most of those groups have chosen alternate venues (not at RMU). We suggest the creation of a large capacity event space (capacity of 250 people) in the John Jay Center renovation. This would provide ample space and opportunity for multiple groups on campus to hold events.</p>	
<p>Goal 4 - Technology: Leverage technology investments for continued effectiveness in teaching and learning, increased productivity, cost measurement and containment (Financial Review System) and management decision-making.</p>	SEMS	<p>Evaluate potential technology and software that could be utilized in classes and labs for education and research.</p> <p>Monitor future trends in technology to keep up with industry demand.</p> <p>The Outreach Center will utilize more online programming and technology-based tools for education and event registration and evaluation.</p>	<p>Budget required funds to maintain and update equipment in labs.</p> <p>Explore opportunities for holding SEMS departmental and outreach events that are long-distance or international in nature.</p>
	Engineering	<ul style="list-style-type: none"> ● Budget required funds to maintain and update equipment in learning factory to keep labs current and relevant. ● Computers in all Engineering classrooms with Engineering software accessible. ● Software to control and monitor student activity on computers during classes. <p>Expand access to Engineering Journals.</p>	<ul style="list-style-type: none"> ● Procurement of requested technology (hardware) and software. <p>Continued subscribing to electronic library resources.</p>
	Mathematics	same	same
	Science	<p>The science department will continue to utilize technology and instrumentation in lecture and laboratory courses.</p> <p>Evaluate the potential technology and software that could be utilized in classes and labs for education and research.</p>	Monitor future trends in technology to keep up with industry demand.
	SEMS-ROC	The Outreach Center will endeavor to utilize more online	Measured by increased utilization of technology in these areas

	<p>Outreach</p>	<p>programming and technology-based tools for event registration and evaluation. Continuous updating of the Outreach Center's website will be a high priority. Specifically:</p> <ul style="list-style-type: none"> consist use of an online registration system for all outreach events and summer camps use of the QuestionPro survey system for participant evaluation of all outreach events creation of a new SEMS Outreach newsletter, to be published twice per semester, both online and in print explore social media opportunities to better engage, faculty, students, and prospective students Explore opportunities for holding outreach events that are long-distance or international in nature. 	<p>of our outreach program. Measured based on the number of events created.</p>
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<p><u>Initiative 5 - Solidify and Leverage RMU Brand</u></p> <p>Promote RMU academic programs; faculty, student and institutional accomplishments; Division I athletics and student-athlete performance; and other significant components of the University's Value Proposition.</p>			
Goal	Department	Strategy	Measure of Success
<p><u>Brand Building:</u> Increase and enhance institutional visibility, brand recognition and awareness of key messages among select target audience segments in both primary and growth markers in order to promote gains in enrollment, fundraising, faculty and student academic accomplishments, placement and other positive outcomes.</p>	SEMS	SEMS Value proposition is strong, as the return on the investment is close to 93%. We attribute current success in enrollment (SEMS currently reaches 1000 students vs. 300 a few years back) to academic rigor, engaged learning by supportive and talented faculty, and delivering exceptional value via reasonable price and discount rate.	<p>Making an appealing return on investment both for students and families.</p> <p>PR, SEMS and SEMS outreach achievements grow marketing campaign.</p> <p>Work with admissions office to promote SEMS to potential students and reach out to high schools for STEM events.</p> <p>Advertise the funding obtained by SEMS as SEMS is one of the leaders in the research area and student/faculty engagement.</p> <p>Promoting RMU/SEMS at national and international events.</p> <p>93% placement for the University, similar percentage for SEMS, almost 96-100% for engineering.</p>
	Engineering	<ul style="list-style-type: none"> ● Promoting RMU by Assisting to Conferences, give talks in other Universities/Companies. ● Show that the campus has grown in the last few years and that it is still growing. ● Show SEMS in the admissions booklet. ● Show examples of co-ops and recent graduates working in the industry. ● 93% Placement for the University, similar percentage for SEMS, almost 100% for engineering. ● Athletic Scholarships given to international students. <p>Advertise the funding obtained by SEMS.</p>	<ul style="list-style-type: none"> ● Contribute to Improved visibility of RMU, SEMS, and Engineering (ex Manufacturing and Energy and Sustainability). <p>Monitor progress, record relevant information/data, and keep stable or improve annually.</p>

	Mathematics	TBD/same	same: Actuarial Science-as program of excellence
	Science	TBD/same	same: Biology, premed and Env science
	SEMS-ROC Outreach	<p>The Outreach Center will continue to promote the RMU brand as part of its student recruitment efforts, as well as through distribution of information to the community (via outreach events) regarding SEMS programs. For example: distribution of SEMS and RMU program materials at all outreach events, both on- and off-campus</p> <p>continuous updating and distribution of upcoming SEMS events and information</p> <p>explore options for marketing outreach programs via online means, as well as through social media and newspapers</p> <p>provide RMU and SEMS promotional items at all outreach events, both on- and off-campus, as budgets permit</p>	<p>Measured based on distribution of promotional items at outreach events.</p>
	SEMS-ROC Research	<p>RMU faculty, staff and students present their work at research conferences and submit papers to journals.</p> <p>Create links on SEMS website pointing to most the current research work being done at SEMS.</p>	<p>Number of papers published.</p> <p>Number of conferences attended.</p> <p>Number of research stories published on website.</p>
<p><u>Impact Measures:</u> Establish a set of meaningful brand metrics and outcome measures to assess RMU's brand recognition and its value or impact to/on the University, its priorities and its desired outcomes. One for these metrics will be RMU's programs in ascending the US News rankings towards the 30 status and other indices of institutional improvement.</p>	SEMS	Work closely with PR and Admissions offices to contribute into marketing campaign for our programs.	Promote SEMS success stories.

	Engineering	<ul style="list-style-type: none"> ● Number of publications (books, journal and conference papers, etc.). ● Number of students passing the FE/CMgT exam. ● Funding received through grants, fellowships, and scholarships. ● Number of patents received. 	Monitor progress, record relevant information, and keep stable or improve annually.
	Mathematics	TBD/same	TBD/same
	Science	TBD/same	TBD/same
	SEMS-ROC Outreach	The Outreach Center will continue to support all SEMS programs in achieving this goal, as appropriate.	Measured based on departmental requests for outreach support in this area.
	SEMS-ROC Research	Research output, collaborations and impact help build RMU brand recognition.	Measure research output in terms of research papers and posters and grant monies.
<p><u>Promoting the RMU Value Proposition:</u> Formalize the articulation of RMU's Value Proposition, validated and periodically assessed through a quantitative and qualitative survey of internal and external audiences. Once established enforce brand consistency and alignment with the Value Proposition across all media and channels.</p>	SEMS	SEMS embodies the success of value proposition and return on investment.	See "brand building".
	Engineering	<ul style="list-style-type: none"> ● Obtain grants to provide scholarships to students to increase value and affordability. ● Continue to encourage students to apply for local, <ul style="list-style-type: none"> ● regional, and national level fellowship and scholarship competitions. 	Monitor progress, record relevant information/data, and keep stable or improve annually.

	Mathematics	See SEMS	See SEMS
	Science	See SEMS	See SEMS
	SEMS-ROC Outreach	Not applicable	
	SEMS-ROC Research	Enhance career opportunities for the RMU's postgraduate students by providing appropriate information.	
<u>Increasing RMU Visibility:</u> Collaborate with partners and stakeholders to develop, dissemination, coordinate and/or implement and evaluate formal, multi-year strategic public relations and marketing plans for (a) institutional visibility and brand recognition, (b) recruitment marketing campaigns for relevant market segments (traditional, transfers, part-time, online, international, etc), (c) alumni and donor marketing communications, (d) school-and program-based marketing campaigns where appropriate and (e) promotion of RMU faculty and staff and educators, experts and exemplars.	SEMS	To support the overall goals of initiative 5, SEMS will develop further relationships with graduate and professional schools and industry partners. Continue to develop high quality outreach programs to engage the local community. Engage in partnerships with national recognition like "America Makes" (former NAMII). Promote uniqueness and value of our programs such as Actuarial Science, Manufacturing Engineering, Environmental Science, Biology, Pre-Med, Teacher Education, etc., as well as student and faculty success in their disciplines or interdisciplinary projects.	Support University initiatives to improve RMU US News ranking to place 30. Produce promotional materials that highlight school, departmental and student achievements. Encourage faculty to be engaged in local, regional and national professional societies. Monitor and upgrade SEMS website to reflect new accomplishments by faculty and students. Develop and maintain an active BOV and program advisory boards. Work with PR/Marketing and Admissions office to create and implement a comprehensive marketing plan for SEMS. Explore options for online promotion at the national and international levels for SEMS programs, faculty research, and student opportunities (possibly through webinars, social media, etc.).
	Engineering	<ul style="list-style-type: none"> ● Join and maintain research partnerships and memberships in formations like NAMII (America Makes) and Tech Belt Initiative. ● Exchange Student Partnerships with additional schools in the form of 2+2, 3+2, 4+1 including graduate degrees. ● 	Monitor progress, record relevant information/data, and keep stable or improve annually.
	Mathematics	See SEMS	See SEMS
	Science	To support the overall goals of initiative 5, the Science	Reports and assessments submitted to the Dean's office or

<p><u>Initiative 6 – Strengthen RMU’s Financial Position</u></p> <p>Strengthen the University’s fiscal and capital position through enhanced and diversified revenue streams, which include increasing private, state and federal support and an optimization of existing sources of revenues.</p>			
Goal	Dept.	Strategy	Measure of Success
<p><u>New Capital Campaign:</u> In accordance with the Strategic Plan, institute a second comprehensive capital campaign to increase the University’s endowment, decrease its reliance upon tuition revenue operating support, fund high priority projects and increase resources for student financial aid.</p>	SEMS	SEMS continues to work closely with the office of Institutional Advancement, Alum office and Public Relations & Marketing to secure scholarships for students and build a financially solid Dean’s fund in support of student experiential learning.	<p>Work with Institutional Advancement Office to identify and approach local companies and foundations for donations/naming rights in SEMS.</p> <p>Continue to work with IA and SEMS BOV to create more endowed scholarships for the students especially for minority and female students.</p> <p>Continue to work with IA to increase number of grants submitted to foundations and the number of awarded proposals.</p>
	Engineering	<ul style="list-style-type: none"> ● Approach local companies for donations for naming rights to engineering laboratories. ● 	Monitor progress, record relevant information/data, and keep stable or improve annually.
	Mathematics	See SEMS	See SEMS
	Science	See SEMS	See SEMS
	SEMS-ROC Outreach	Not applicable	Number of grants and \$ amounts received from external sources to support research.
	SEMS-ROC Research	Generate external financial support for research activities at SEMS.	

<p><u>Enhance Fund-Raising Capabilities:</u> Continue to further evolve and enhance RMU’s fund-raising infrastructure and effectiveness.</p>	SEMS	See SEMS contributions above/New Capital Campaign	same
	Engineering	Improve alumni network to find funding opportunity.	Monitor progress, record relevant information/data, and keep stable or improve annually.
	Mathematics	See SEMS contributions	same
	Science	See SEMS contributions	same
	SEMS-ROC Outreach SEMS-ROC Research	Not applicable Distribute research funding and application procedure information to the SEMS faculty.	Number of grant applications made. Number of funding sources explored.
<p><u>Continue to Build a Culture of Giving:</u> Cultivate and steward the culture of philanthropy and engagement across the University’s culture, including its current students, alumni, friends, partners and affiliates.</p>	SEMS	Cultivate the culture of philanthropy in SEMS: students, alumni, friends, Board of Visitors and Advisory Board members, partners and affiliates.	Work with Alumni office to organize SEMS Alumni events to promote school success and enhance the culture of giving. An Example: Events related to SEMS 15 in 2014, 20 years old in 2019 or Science Department 10 years old now. NSF cohort graduates-track their success and philanthropic approach.
	Engineering	<ul style="list-style-type: none"> ● Solicit alumni donations. ● Have a departmental homecoming event during the annual homecoming event. ● Use alumni feedback to enhance curriculum as well as facilities. 	<ul style="list-style-type: none"> ● An increase in alumni giving rate will have been fostered. ● Alumni will be members of the Engineering Program Advisory Committee.
	Mathematics	same	same
	Science	Investigate the formation of a “Science Alumni Club” to help build and expand the RMU alumni base and “culture of giving”.	same
	SEMS-ROC Outreach	SEMS-ROC will support initiatives in SEMS to contact alumni, promote SEMS achievements, and work to build a	Measured based on alumni participation/giving.

		culture of giving.	
<u>New Fund-Raising Models:</u> Find new models for effective fund-raising, given the changing landscape of the RMU community and the donor marketplace at large.	SEMS	SEMS will support new ideas in acquiring new donor markets.	Capitalize on RMU close positioning to areas like Southpointe or Cranberry where energy companies thrive and we are the closest institution of higher education they have.
	Engineering	Use SEMS ROC to provide short courses to area for professionals to attract publicity and industrial interest.	Monitor progress, record relevant information/data, and keep stable or improve annually.
	Mathematics	See SEMS	See SEMS
	Science	See SEMS	See SEMS
	SEMS-ROC Outreach and Research	Not applicable	Not applicable
<u>Revenue Enhancement:</u> Grow and diversity revenue via the strategic enrollment plan, improving retention and graduation rates, and increasing faculty funding research while maintaining the existing auxiliary revenue sources.	SEMS	Support the diversification of the revenue stream by strong enrollment and retention rates. Research into possible international resources for student enrollment both on UG and Grad levels. Increase grant applications and success of awards in research.	Continue to improve sources of income and work with appropriate offices to do so.
	Engineering	<ul style="list-style-type: none"> Continually monitor retention rates for both domestic and international students. Encourage research grant submissions.	Monitor progress, record relevant information/data, and keep stable or improve annually.
	Mathematics	See SEMS	See SEMS
	Science	See SEMS	See SEMS
	SEMS-ROC Outreach	Not applicable Seek financial support for SEMS research from foundations	Number of grant applications made and monetary amounts

	SEMS-ROC Research	and government agencies.	received from foundations.
<p><u>Cost Efficiency:</u> Be good stewards of the University's resources by evaluating programmatic financial performance via the Financial Review System to support the budgeting process, align resources with priorities and improve decision making. Leverage investments in technology to enhance customer service and realize organizational efficiencies.</p>	SEMS	<p>Evaluate programmatic financial performance via the Financial Review System to support the budgeting process. Align resources with priorities and improve decision making. Leverage investments in technology to enhance customer service and realize organizational efficiencies. The Outreach Center will continue to review existing event offerings for financial performance and restructuring.</p>	<ul style="list-style-type: none"> ● SEMS was involved in discussions regarding cost of education at RMU and prior with strategic review process for all academic programs. ● Consider those developments mentioned above, reallocation of the resources is essential for SEMS as the fastest growing school on campus. ● The fastest growing programs in engineering and biology require additional resources in faculty/staff hiring, classroom and laboratory space, equipment and more. ● SEMS will continue to enhance technology capabilities in the outmost efficient way with full consideration of needs of other units on campus. <p>Outreach will create cost-effective budgets for new events as they are planned and developed.</p>
	Engineering	<ul style="list-style-type: none"> ● Investigate the technology that is being used in industry, and use the information to develop the laboratory and courses. ● Utilize the available resources amongst RMU and SEMS departments. 	<ul style="list-style-type: none"> ● Demonstrate examples of internal collaboration in RMU annually. ● Monitor progress, record relevant information/data, and keep stable or improve annually.
	Mathematics	See SEMS	See SEMS
	Science	See SEMS	See SEMS
	SEMS-ROC Outreach	<p>The Outreach Center will continue to review existing event offerings for financial performance and restructuring, and will create cost-effective budgets for new events as they are planned and developed.</p> <p>Since 2011, SEMS-ROC has attempted to operate with increasingly reduced funds. This has become problematic for the following reasons:</p> <ul style="list-style-type: none"> increasing costs for catering increased fees for event spaces increased costs of promotional items higher charges of advertising in local newspapers increased rates for educational supplies need for remuneration of participating faculty and outside STEM professionals in our events. 	<p>Measured based on individual costs per event offered.</p> <p>Measured based on annual costs versus monies received.</p>

	SEMS-ROC Research	<p>Considering these circumstances, the Outreach Center has functioned in as frugal a manner as possible. We have sought external funding on multiple occasions to support existing and new events, and will continue to do so. In order to accommodate future growth and expanded outreach offerings, budgetary needs are a vital concern.</p> <p>Comply with RMU's financial guidelines in obtaining and disbursing research funds.</p>	Annual financial reports/statements related to research grants are submitted to funding agencies and RMU administration.
<p><u>Capital Funding Plan:</u> Develop a funding strategy to complete the capital plan associate with the Strategic Plan that incorporates fundraising, other potential funding sources and selective borrowing.</p>	SEMS	SEMS will work with Institutional Advancement to support university-wide initiatives for capital campaign.	Not applicable
	Engineering	Seek donors for Engineering from industry, philanthropists, as well as alumni network.	Monitor progress, record information/data, and keep stable or improve annually.
	Mathematics	Not applicable	Not applicable
	Science	Not applicable	Not applicable
	SEMS-ROC Outreach and Research	Not applicable	Not applicable
<p><u>Tuition Optimization:</u> Manage gross tuition charged discount rate to promote RMU's value proposition to prospective and current students while also growing net tuition revenues and enhancing RMU's status as a "University of Choice".</p>	SEMS	SEMS will support appropriate offices to manage tuition changes to promote RMU's value proposition to prospective and current students.	Not applicable

	Engineering	Seek outside sources including grants, fellowships, and scholarships for students.	Monitor progress, record information/data, and keep stable or improve annually.
	Mathematics	Not applicable	Not applicable
	Science	To support the overall goals of initiative 6, the Science Department will provide any aid and assistance requested for the capital campaign effort.	Not applicable
	SEMS-ROC Outreach and Research	Not applicable	Not applicable