



RSU 2016-2021 Operational Planning Template

Department of Mathematics and Physical Sciences *Years 1 - 3*

RSU Mission

Our mission at Rogers State University is to ensure students develop the skills and knowledge required to achieve professional and personal goals in dynamic local and global communities.

Our commitments, which support the RSU mission, are as follows:

- To provide quality associate, baccalaureate, and graduate degree opportunities and educational experiences which foster student excellence in oral and written communications, scientific reasoning, and critical and creative thinking.
- To promote an atmosphere of academic and intellectual freedom and respect for diverse expression in an environment of physical safety that is supportive of teaching and learning.
- To provide a general liberal arts education that supports specialized academic programs and prepares students for lifelong learning and service in a diverse society.
- To provide students with a diverse, innovative faculty dedicated to excellence in teaching, scholarly pursuits, and continuous improvement of programs.
- To provide University-wide student services, activities, and resources that complement academic programs.
- To support and strengthen student, faculty, and administrative structures that promote shared governance of the institution.
- To promote and encourage student, faculty, staff, and community interaction in a positive academic climate that creates opportunities for cultural, intellectual, and personal enrichment for the University and the communities it serves.

Vision

Rogers State University (RSU) will be the regional university of choice for northeast Oklahoma and beyond while achieving recognition as a model for excellence in on-ground and online academic programs at the undergraduate and graduate levels.

Elaboration on RSU's Vision

Rogers State University has advanced its reputation for quality undergraduate education since becoming a four-year university in 2000 as evidenced by its U.S. News and World Report ranking as one of the top 50 public regional colleges in the West. RSU focuses on excellence in teaching and learning while seeking to become a regional leader in Quality Matters approved distance education.

As a regional university of choice, RSU cultivates a vibrant campus culture while delivering substantive, relevant degree programs that align with area workforce needs. Through curricular and co-curricular offerings, RSU promotes and embraces cultural diversity and global awareness.

Today:
Mission



Future:
5-year Vision

Area or School Mission:

Central to the mission of the School is the preparation of students to achieve professional and personal goals in their respective disciplines and to enable their success in dynamic local and global communities. Our strategy is to foster an academic setting of diverse curricula that inherently incorporates an environment of service and collegiality:

1. The School offers innovative degrees, which focus upon developing skills in oral and written communication, critical thinking, creativity, empirical and evidenced-based inquiry, experimental investigation and theoretical explanation of natural phenomena, and innovative technology.
2. The School educates its majors to think independently and have the knowledge, skills and vision to work in all types of situations and careers and communicate with all types of people.
3. The School offers general education courses of high quality and purpose that provide a foundation for life- long learning.
4. The School fosters a community of scholars among the faculty and students of the institution.
5. The School will offer and promote artistic, scientific, cultural, and public affairs events on the campus and in the region.

Department Mission:

The mission of the Department of Mathematics and Physical Sciences at Rogers State University is to support students in their pursuit of knowledge in mathematics and physical science. Our purposes are:

1. To increase the student's critical thinking and reasoning abilities.
2. To increase the student's understanding and appreciation of the physical world, -and the ability to apply this understanding in his/her personal and professional life.
3. To increase the student's awareness of the benefits of incorporation of technology into Science and Math studies.
4. To increase the student's ability to interpret and understand his/her world mathematically.
5. To prepare a student to matriculate into a four-year degree program in math or science-related fields or graduate.
6. To serve as a resource for the community, utilizing the expertise of the faculty.

Process and Instructions:

Operational planning is planning that takes place at the department level or across departments in an organization. RSU's operational plans are developed by each department on an annual basis, and all department plans are guided by the University's prioritized strategic actions selected by RSU's Strategic Planning Committee. Departments may choose to include additional action items in their annual plans, but only those actions that support the annually prioritized strategic actions will be considered for institutional resources

when resources become available. Further, key performance indicators are necessary to assess the success of each operational plan. Operational plans will be submitted to and reviewed by the vice president for each respective area as well as the Strategic Planning Committee and the Budget Advisory Committee.

In the tables that follow, please work collaboratively with your team to select three to six strategic actions for *each* of Years 1, 2, and 3 for your Unit to accomplish. Keep in mind that no additional funding is available for Year 1 (2016-2017) or Year 2 (2017-2018) strategic actions. In October 2016, in alignment with employee feedback prioritizing strategic actions, the University submitted a Year 2 (2017-2018) budget to its Regents to fund the following strategic actions *should funds be available*:

- Goal 2.1.1.1: Reduce/eliminate furlough days through increased revenue and cost containment
- Goal 2.2.1.1: Ensure competitive salaries for faculty and staff (full-time and part-time)
- Goal 1.1.1.6 Enhance and implement academic quality and persistence initiatives (Development of a first-year experience program)

Departments' Operational Plans for Year 3 (2018-2019) will be reviewed by the Strategic Planning Committee and the Budget Advisory Committee to develop the FY2019 budget for submission to OSRHE. Henceforth, each year after the University's budget is finalized, departments will be informed of approval or disapproval of budget monies requested in their Operational Plans.

GOAL #1: INSPIRE STUDENT LEARNING AND DEVELOPMENT

Objective1: Promote Student Success

Initiative 1: Increase persistence and graduation rates

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Improve RSU's advisement system		Year 1 Year 2 Year 3			
2. Implement a comprehensive first-year experience program		Year 2			
3. Increase pursuit of federal (e.g. TRiO) and other grant opportunities		Year 1			
4. Mine data to inform institutional decision making		Year 1			
5. Advance use of technology in at-risk and support services		Year 1			
6. Enhance and implement academic quality and persistence initiatives	a. Develop and implement a co-requisite model for the underprepared students with ACT Math Score 17-18 by using added Supplementary Foundation Lab Classes.	Year 1 Year 2	a. \$0	a. Assess the effectiveness of the model based on annual assessment results.	a. The performance standard will be to expect 70% or more Foundation class students to make 70

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
	<p>b. Develop more mid- and upper-level Geology courses with associated field experiences that will transfer to comprehensive universities. This is necessary for students to transfer the degree without deficiencies.</p>	a. Year 3	a. \$0	b. Assess the acceptance of these new courses to local comprehensive universities' geology programs.	<p>or better passing grade.</p> <p>b. Students can successfully transfer the courses without having deficiencies.</p>
	<p>c. Develop curriculum for GEOL 3013 Environmental Geology</p>	b. Year 2-3	b. \$0	c. Submission of the new curriculum to the Curriculum Committee.	c. Curriculum committee approves the revised course curriculum.
	<p>c. Identify and reach out to STEM students to get them enrolled in the correct Math, Chemistry and Physics sequences in their first semester. This will ensure that they are on track sooner with their program requirements.</p>	c. Year 2-3	c. \$0	d. More STEM students will complete their math, chemistry, and physics basis courses sooner.	d. STEM students will graduate within the timeframe that is standard for their degrees.
	<p>c. Upgrade and expand General Physics Labs with computer data acquisition and analysis software along with modern experimental equipment.</p>	e. Year 3	e. Unknown what the cost will be in 3 years.	c. Improvement of the quality of experimental studies of physics and facilitate student	c. Equipment and computer software is purchased. A proper room is designated for storage space and laboratory setting.

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
				learning the cutting edge science.	

Initiative 2: Expand opportunities for undergraduate research/scholarship

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Establish internships, research partnerships, and similar opportunities	Develop internships with area energy and environmental companies for geology students.	Year 2	\$0	The willingness of companies to grant internships will be monitored and tabulated for later evaluation.	RSU geology students apply and are awarded internships in area companies.
2. Dedicate funds for student research/scholarship		Year 1			

Objective 2: Enhance Transformational Learning Experiences Across the University

Initiative 1: Integrate quality principles across the curriculum

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
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1. Establish quality standards in on-ground courses	a. The MPS continually strive to include applicable Quality Matters standards into our on-ground courses.	a. Year 3	0\$	a. The evaluation will continue with increased numbers of on-ground courses including applicable QM standards in their course design.	a. For the first 2 years, the goal is 50% of all on-ground courses will be including applicable QM standards.
2. Implement the Quality Matters plan in online and blended courses	Continue to develop MPS online and blended courses that meet the Quality Matters standards.	Year 2	\$0	The evaluation will continue with ongoing addition of online and blended courses each academic year. These courses will be tabulated and a percent success will be noted.	The ultimate goal is to achieve 100% online and blended courses meeting the Quality Matters criteria.
3. Expand the role of the CTL in quality implementation		Year 1			

Initiative 2: Strengthen internship and civic engagement programs

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Establish more internship opportunities	See Initiative 2.	a. Year 1	\$0		

<p>2. Expand community service opportunities</p>	<p>a. MPS will continue to seek funding to present STEM workshops in area elementary and middle schools.</p> <p>b. Chemistry club events are planned to coincide with community events, such as Earth Day.</p>	<p>a. Year 2</p> <p>b. Year 1 Year 2 Year 3</p>	<p>a. \$0</p> <p>b. \$0</p>	<p>a. The total number of teachers who sign up and finish the STEM workshops will be indicative of the need for these types of STEM professional development activities by the teachers.</p> <p>b. Chemistry club develops community contacts so that they can be present at local events.</p>	<p>a. A capacity of 75% for each workshop will indicate the need for these workshops. Teachers will have to sign up and attend during their summers off from teaching, which will also indicate the need from the teachers' points of view.</p> <p>b. Chemistry Club represented at local events.</p>
<p>c. Promote service learning as a required element in appropriate courses</p>		<p>Year 3</p>			

Initiative 3: Emphasize diversity, inclusion, and global awareness

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
<p>1. Provide appropriate co-curricular learning and involvement opportunities</p>	<p>a. Chemistry and biology students (Environmental Option) would benefit from a course that relates chemistry to the environment.</p> <p>b. Chemistry and biology students would benefit from a course that teaches them about systems modeling, and teaches them how to do computer modeling used in chemistry and biology research.</p>	<p>a. Year 1 Year 2 Year 3</p> <p>b. Year 1 Year 2 Year 3</p>	<p>a. \$0</p> <p>b. \$0</p>	<p>a. Design a curriculum for a course that already exists (Environmental Chemistry 3515) so the class can be offered to biology students.</p> <p>b. Design a curriculum for a course in systems modeling so the class can be offered to chemistry and biology students.</p>	<p>a. The curriculum will be designed and approved by the chemistry faculty, with input from biology faculty to improve the relevance of the class for biology students.</p> <p>b. The curriculum will be designed and approved by the chemistry faculty. Input from biology faculty will be considered to improve relevance for the biology student.</p>

	<p>c. Build a separate organic chemistry/biochemistry laboratory to alleviate unsafe crowding that presently exists because of the equipment and chemicals needed to teach organic chemistry, general chemistry, and biochemistry, which all presently share the same laboratory room.</p> <p>d. Develop and promote a Laboratory Analyst BS degree to meet the needs of industry.</p>	<p>d. Year 1 Year 2 Year 3</p>	<p>d. \$0 \$0 Yr 3: \$ unknown</p>	<p>c. Construction of an organic/biochemistry laboratory</p> <p>d. Development of curriculum upon advisement of area Advisory committee from the area industry.</p>	<p>c. Separating organic and biochemistry from general chemistry provides ample space in the laboratory for safety.</p> <p>d. Development and approval of a BS degree plan through the University Curriculum Committee.</p>
2. Increase support and success initiatives for identity-based student populations		Year 1			
3. Establish a Native American		Year 3			

Student Center					
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Initiative 4: Promote educational experiences for students outside of the classroom

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Establish “Study Circles” among faculty, staff, and students		Year 3			
2. Develop field-based geology courses outside of the classrooms.	Provide field-based courses for geology so that the students can learn proper field techniques (sample collecting, in-field data analysis, depositional environments evaluations, etc.).	Year 3	\$0	Students will be required to perform field-based tasks that will assist in the preparation for on –the-job field studies.	70% of the students will score 70% or higher in the field course.

GOAL #2: ENHANCE INSTITUTIONAL EXCELLENCE, INNOVATION AND TRADITIONS

Objective 1: Enhance Organizational Culture and Strengthen Internal Communication Systems

Initiative 1: Promote a culture that celebrates innovation, values human resources, and embraces positive change

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Reduce/eliminate furlough days through increased revenue and cost containment		Year 1			
3. Develop an employee recognition program		Year 1			
4. Develop an after-5:00 p.m. student service environment		Year 3			

4. Establish an RSU-Bartlesville Student Center and Library		Year 1&2			
7. Establish a Faculty/Staff Social Planning Committee (i.e., Cultural Innovation Committee)		Year 1			

Initiative 2: Strengthen internal communication systems

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Improve RSU’s website (external) and the MyRSU portal (internal)		Year 1			
2. Automate university forms		Year 2			
3. Implement an internal communication plan		Year 1			

Initiative 3: Engage part-time faculty in University culture

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Provide unbroken access to RSU email communication between semesters		Year 1			
2. Invite adjunct faculty to department and university meetings and events		Year 1			
3. Engage adjunct faculty in the Faculty Association		Year 2			

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
4. Post current full-time and adjunct faculty biographical information on department websites and/or building monitors		Year 1			

Initiative 4: Establish and celebrate RSU traditions

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Identify and promote RSU's unique traditions		Year 1			

Objective 2: Support Professional Growth and Employee Well-Being

Initiative 1: Ensure competitive salaries for faculty and staff (full-time and part-time)

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Implement a compensation plan		Year 1			
2. Conduct a compensation survey		Year 2			
3. Develop policies to compensate staff for achieving relevant degrees/certifications/licensure		Year 1			

Initiative 2: Pursue pedagogical innovation through faculty and staff support

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
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1. Increase university-sponsored professional development opportunities		Year 1 - Year 3			
2. Develop and implement a new employee orientation program		Year 3			
3. Incentivize scholarly and creative research and activities		Year 1			

Initiative 3: Build full-time faculty and staff to the level of regional parity

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Conduct an employee staffing survey of peer institutions		Year 2			
2. Recruit and retain under-represented faculty and staff		Year 1			

GOAL 3: ENGAGE RELEVANT STAKEHOLDERS

Objective 1: Enhance RSU’s Image and Build Brand Awareness

Initiative 1: Develop a comprehensive brand identity and marketing plan

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Increase RSU presence/visibility in service area		Year 1			
2. Formalize and implement university marketing and branding plan		Year 1			
3. Implement brand management measures to protect use of RSU marks		Year 1			

Initiative 2: Actively engage alumni and community supporters

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Engage prominent community leaders		Year 1			
2. Expand the alumni base		Year 1			
3. Encourage faculty, staff and student participation in local engagement and/or leadership opportunities		Year2			
4. Increase communication with alumni		Year 1			
5. Plan department and program specific activities, events and reunions		Year 2			
6. Develop an RSU student-alumni mentorship program		Year 1			

Initiative 3: Enhance external communication

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Increase awareness of academic excellence		Year 1			
2. Refine effectiveness of RSU digital presence		Year 1			
3. Increase awareness of individual accomplishments		Year 1			
4. Leverage RSU TV and RSU Radio media assets		Year 1			

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
5. Expand distribution of university news to non-campus publics		Year 1			
6. Develop external version of strategic plan for marketing and promotion	a. Organize a Mathematics Competition for high-school seniors in North Eastern Oklahoma.	Year 1	a. \$	a. Based on number of school participants.	a. Expect at least 10 regional schools to participate.

Initiative 4: Strengthen RSU Foundation Endowments and Donor Base

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Increase RSU Foundation assets by more than 15% annually		Year 1			
2. Promote an intentional grant process linking funding priorities to outcomes		Year 1			

GOAL #4: ENHANCE ENROLLMENT GROWTH AND DEVELOPMENT

Objective #1: Strengthen Operational and Student Service Systems

Initiative 1: Maximize the implementation and use of the new administrative services and associated technology systems.

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Identify campus specialists and enhance training in technology tools		Year 1			

2. Identify and capture resource efficiencies		Year 2			
3. Streamline business processes and deploy technological solutions		Year 3			

Initiative 2: Reimagine and reinvigorate RSU’s Service Mission

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Create and implement a university customer service code		Year 1			

Objective #2: Increase Institutional Enrollment

Initiative 1: Develop a comprehensive Strategic Enrollment Plan

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Identify RSU enrollment goals and OSRHE enrollment mandates		Year 1			
2. Conduct internal/external SWOT analysis on enrollment		Year 1			

3. Establish enrollment metrics and key performance indicators		Year 1			
4. Establish data analytics structure		Year 1			

Initiative 2: Accelerate academic program development

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Advance development of online programs and courses in demand subjects and emerging disciplines	a. Develop a 3 credit course that helps students to develop skills to analyze data using a statistical software such as R or SPSS .	Year 1	a. \$	a. Student performance and career progress will be evaluated.	a. Expect 70% of the students to perform 70% or higher in overall class evaluations.
2. Add certificate and credential offerings in line with core institutional competencies		Year 2			
3. Establish one complete degree/certificate/credential program at each satellite campus location	a. Develop a BS program in Mathematics and a BS program in Actuarial Science. Degree plan and course descriptions are finalized. Degree program curriculum forms will be submitted for approval.	Year 2 Year 3	a.\$0 b.\$ Entry level Ph.D. mathematician salary.	a. Will be evaluated through yearly program assessment considering graduation rates and career job opportunities	a. New qualified Ph.D. mathematician is hired.

				for the graduates (career progress).	
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Initiative 3: Increase institutional retention

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
3. Investigate transportation needs between satellite and main RSU campuses		Year 2			

Initiative 4: Increase volume, quality and opportunities relative to student activities across all RSU campuses.

Strategic Actions	Operational Action(s)	Priority Year	Requested Budget	Evaluation Measure	Performance Standard
1. Establish partnerships with Claremore, Pryor and Bartlesville city leadership to facilitate business, facility and programmatic investment that appeals to and engages local college student population		Year 2			