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| <b>DEVELOPMENTAL STUDIES<br/>STUDENT LEARNING REPORT</b><br>(Rev. August 2013) | <b>ROGERS STATE UNIVERSITY</b><br>School of Mathematics, Science, and Health Sciences<br>For Academic Year 2012-13 |
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Effectively assessing developmental studies should address a number of factors:

- 1) Valid student learning outcomes should be clearly articulated;
- 2) Valid assessment measures should be used, consistent with the standards of professional practice;
- 3) There should be evidence that assessment data are being used by faculty to make necessary instructional or assessment changes; and there should be evidence that instructional or assessment changes are being implemented to improve student learning.

**Relationship of Developmental Studies Learning Outcomes to Departmental and University Missions**

- 1) **A.** Insert and clearly state the school, department and developmental studies missions in the spaces below.

| University Mission                                                                                                                                              | School Mission                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Department Mission                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Developmental Studies Mission                                                                                                                                                                                                                                                    |
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| Our mission is to ensure students develop the skills and knowledge required to achieve professional and personal goals in dynamic local and global communities. | Central to the mission of the School of Mathematics, Science & Health Science 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. Three departments comprise this School, the Departments of Biology, Health Science, and Math and Physical Science. These departments pledge to deliver existing and newly developed programs that meet student demands, and to be responsive to the evolving culture of academia in general and the sciences in particular. | <p>The Mission of the Math and Physical Science Department is to support and facilitate the students' pursuit of knowledge and to prepare them for a future of dynamically changing technological and scientific advances. This is accomplished by preparing them academically in the areas of critical thinking, analytical analyses, communication through written and graphical means, and fostering thinking in terms of processes.</p> <p>This mission is also focused on integrating the above skills in their daily lives within a fast changing society and technology.</p> | Our mission in Developmental Education is to ensure that skill deficient students develop the math and science skills necessary to be successful in their college-level classes to promote their future personal and professional success in their local and global communities. |

| University Mission | School Mission                                                                                                                              | Department Mission | Developmental Studies Mission |
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|                    | Our Strategy is to foster an academic setting of diverse curricula that inherently incorporates an environment of service and collegiality. |                    |                               |

- 1) **B.** Insert and clearly state school purposes, department purposes and student learning outcomes in the spaces below, making sure to align the student learning outcomes with their appropriate school and department purposes, and these outcomes and purposes with their appropriate university commitments. Not all RSU Commitments will have an accompanying Student Learning Outcome.

| University Commitments                                                                                                                                                                                                                  | School Purposes                                                                                                                                                                                                             | Department Purposes                                                                                                                                                                                                                                                                                                                | Student Learning Outcomes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| 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. | The School will offer developmental courses that will prepare students for college careers that will enhance their quality of life. This will be accomplished by honing and developing analytical and communication skills. | The Math and Physical Science Department will provide courses that will hone mathematical and scientific analytical skills, creative problem solving, critical thinking and data gathering as well as process thinking. These learned skills will prepare the students to be successful in college level math and science courses. | <p>1.) Students will be able to demonstrate the ability to perform at exit in Elementary Algebra, Intermediate Algebra, and Science Proficiency at a skill level that ensures success in subsequent credit-bearing classes.</p> <p>2.) Students will be able to show significant improvement from pre-test to post-test.</p> <p>3.) Students enrolling in another course in the same subject area the following semester will be successful at the same percentage rate or higher than those testing out of any previous developmental course in that subject area.</p> |
| To promote an atmosphere of academic and intellectual freedom and respect for diverse expression in an environment of physical                                                                                                          |                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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| safety that is supportive of teaching and learning.                                                                                                                                                                                       |  |  |  |  |
| To provide a general liberal arts education that supports specialized academic program 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. |  |  |  |  |

#### Discussion of Instructional Changes Resulting from 2011-2012 Developmental Studies Student Learning Report

- 2) List and discuss all instructional or assessment changes proposed in Part 5 of last year's Developmental Studies Student Learning Report, whether implemented or not. Any other changes or assessment activities from last year, but not mentioned in last year's report, should be discussed here as well. Emphasis should be placed on student learning outcomes and considerations such as course improvements, the assessment process, and the budget. If no changes were planned or implemented, simply state "No changes were planned or implemented."

| Instructional or Assessment Changes                                                                                                                                                                                                                                                    | Changes Implemented (Y/N) | Impact of Changes on Curriculum or Budget                                                                                                                                                                                                                                                                                                     |
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| We will continue to analyze performance in the subscore levels of the posttest by collecting performance sheets in Order of Operations for the Fall semester in Elementary Algebra Plus and in Intermediate Algebra both semesters to complete data collection on a four year project. | Partially Implemented     | The Elementary Algebra data collection is finished. A committee of interested full time and adjunct faculty is reviewing the results to formulate recommendations for next year. The Intermediate Algebra data will be collected this year and reviewed by another committee next year. There is currently no change in curriculum or budget. |

- 3) The University Assessment Committee in their Developmental Studies Peer Review Report provided feedback and recommendations for improvement in assessment. List or accurately summarize all feedback and recommendations from the committee, and state whether they were implemented or will be implemented at a future date. If they were not or will not be implemented, please explain why. If no changes were recommended last year, simply state "No changes were recommended."

| Feedback and Recommended Changes from the University Assessment Committee                                                                                                                                                                                                                                                                                                                                                                        | Suggestions Implemented (Y/N) | Changes that Were or Will Be Implemented, or Rationale for Changes that Were Not Implemented                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| 1. Include all instructional and assessment changes. In the peer review session you cited a break down in collaboration. We suggest a formal assessment committee that includes math and science faculty, this should assist in communication. We also suggest that a more comprehensive committee which includes faculty from Developmental reading and writing also collaborate with math and science faculty who teach developmental courses. | Partially Implemented         | 1. All recommendations from the PRR are listed here and addressed. An informal committee of the Dean and Department Heads in MPS and Biology does exist, but a formal one has not materialized. The departments are heavily reliant on faculty of developmental courses who have significant experience and expertise in developmental education and the efficacy of instructional methods and subsequent assessment of student learning. Finally, tradition and history has created silos relative to disciplines with minimal collaboration between the developmental studies between the Schools of Liberal Arts and M/S/HS. The Director of Developmental Studies has made significant progress in faculty (FT and PT) evaluation, coordination of scheduling, advisement, tutoring, and adjunct coordination in Basic Writing for the School of Liberal Arts. However, relative to instruction, evaluation of instruction, curriculum, and assessment, the math and science faculty have chosen to retain considerable autonomy. This is not an issue of territoriality, rather a keen understanding of the importance and structure of the sequential progression of courses and content in the math and sciences. |

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| <p>2. Discuss all peer review suggestions and describe if they were implemented or not.</p> <p>3. All student learning outcomes should address learning. Significant improvement from a pre-test to post-test is a performance standard. Describe expected student learning which is being measured by the pre/post-test.</p> <p>4. Assess student learning from the measurement you identify in column B question 4. Inserting a new measurement into the results is incongruent. If you fail to implement the measure, just state you did not implement and provide an explanation for why the measure was not implemented. If the inserted measurement is more accurate in assessing student learning, please make the changes in column B and utilize the more robust measure.</p> <p>5. Learning challenges were identified; there was not a clear explanation of how student incompletion rates will be addressed. 3c you describe the challenges of obtaining an appropriate sample to measure, yet there is no clear discussion of how these challenges will be addressed. Each discipline should provide a clear and specific discussion of how student learning and the assessment process will be enhanced.</p> | <p>Yes</p> <p>Yes</p> <p>?</p> <p>Yes</p> | <p>2. All recommendations from the PRR are listed here and addressed.</p> <p>3. This year's report breaks the performance into curricular subcategories representing the four course objectives of both Elementary Algebra Plus and Intermediate Algebra. All student performance was also broken into online and on campus performance as requested by the UAC chairperson at last year's review.</p> <p>4. There are nine measures in column B question 4. The committee has reviewed comments during the Peer Review session and the 11-12 SLR and cannot determine what measure was implemented into the results that was not stated in the measures. The reviewer's comment may be in reference to the failure to administer a per-test in Science Proficiency in 2011, and attempts were to draw conclusions using a secondary method. If that is the case, the course was assessed using state measures in 12-13.</p> <p>5. Stating the obvious, learning challenges for students requiring remediation are complex, most are manifested prior to college enrollment, and those challenges are exacerbated in the college environment. Rigor in curriculum and content cannot be compromised because these are foundational courses for future college learning. Reliance on Pre-post-test results provide a measure of comprehensive learning. Essential topics, as identified by department faculty, will be identified in Science Proficiency that will be dissected from the Pre-post-test and evaluated individually. In addition, the success of students completing BIOL 0123 is annually tracked into their subsequent college-level biology courses (General or Cellular) by the Office of Accountability and Academics. However, the Science Proficiency course, though it has a BIOL prefix, is actually a "Science" proficiency course. Meaning, these cohorts should be tracked into their general education physical science courses as well, i.e. PHYS 1014 General Physical Science and GEOL 1014 Earth Science. The Office of Accountability and Academics has agreed to begin tracking student success into their college-level physical science courses in 2014. These data collectively will provide a more informed analysis of the efficacy of the 0123 course. It is possible that these students are</p> |
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| 6. Changes to improve student learning were only addressed by Math faculty. Please address learning challenges and assessment problems for both disciplines, since learning challenges are being described by both areas. | Yes | performing better in their college-level physical science courses.                                                                                                                                                                                                                                                                                                                     |
| 7. Please share best practices that you believe would be beneficial to other faculty.                                                                                                                                     | Yes | 6. In addition to the above discussion, there are no quantitative data upon which "Performance Standards" are set. Included in this discussion should be the appropriate expectation of the measure of student success. It is arguable that given the learning challenges that developmental students must overcome upon arriving at RSU, that our Performance Standards are elevated. |
| 8. There is no mention of science faculty who assessed student learning, analyzed data, and contributed to the student learning report.                                                                                   | Yes | 7. Though optional, one has been incorporated. Evalon St. John has described a best practice from her Elementary Algebra Plus classes.<br>8. All Science Proficiency sections are taught by an adjunct faculty. Her analysis and data collection are noted.                                                                                                                            |

#### Analysis of Evidence of Developmental Studies Student Learning

- 4) For all student learning outcomes listed in Part 1 B. (above), describe the assessment measures and performance standards used, as well as the sampling methods and sample sizes. For each measure, document the results of the activity measured and draw any relevant conclusions related to strengths and weaknesses of students' performance.

| A. Student Learning Outcomes                                                                  | B. Assessment Measures                                                      | C. Performance Standards                                                                        | D. Sampling Methods                                                      | E. Sample Size | F. Results                                                                                                                                                                        | G. Conclusions                                                                                                                                                                  | H. Performance Standards Met (Y/N) |
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| 1) Students will be able to demonstrate the ability to perform at exit in Elementary Algebra, | 1a. Posttest in Elementary Algebra Plus with four course objective areas of | 1a. 65% of the students taking both the pretest and the posttest will score at least 65% on the | 1a. Students took the posttest in 17 sections representing day, evening, | 1a. 221        | 1a. 74% of the students made a score of 65% or more on the posttest. The online sections had an 82% success rate while the on campus sections had a success rate of only 72%. The | 1a. Not only was a success rate of 65% or higher demonstrated overall on the posttest, but also in all four curricular areas as well representing the four course objectives of | 1a. yes                            |

| A. Student Learning Outcomes                                                                                                                  | B. Assessment Measures                                                                                                                        | C. Performance Standards                                                                                  | D. Sampling Methods                                                                                                                                                      | E. Sample Size | F. Results                                                                                                                                                                                                                                                                                                                                                                                                                                   | G. Conclusions                                                                                                                                                                                                                                                                                                                                                                                                                                      | H. Performance Standards Met (Y/N) |
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| Intermediate Algebra, and Science Proficiency at a skill level that ensures success in subsequent credit-bearing classes.                     | Order of Operations, Algebraic Expressions, Algebraic Equations, and Applications                                                             | posttest.                                                                                                 | and online sections taught by both fulltime and adjunct faculty in fall, spring, and summer semesters.                                                                   |                | curriculum area of greatest success was Order of Operations with an 80% success rate overall and on campus, but a 90% success rate online. The curriculum area with the lowest success was Algebraic Expressions with a 65% success rate overall and in on campus classes and a 70% success rate online.                                                                                                                                     | Order of Operations, Algebraic Expressions, Algebraic Equations, and Applications. Both on campus and online students were successful in all four areas with the online students performing slightly better. We will repeat this same data separation next year to verify these success rates.                                                                                                                                                      |                                    |
| 1b. Posttest in Intermediate Algebra with four course objective areas of Slope &Line, Functions, Systems & Equations, and Quadratic Equations | 1b. Posttest in Intermediate Algebra with four course objective areas of Slope &Line, Functions, Systems & Equations, and Quadratic Equations | 1b. 65% of the students taking both the pretest and the posttest will score at least 65% on the posttest. | 1b.Students took the posttest in 16 sections representing day, evening, and online sections taught by fulltime and adjunct faculty in fall, spring, and summer semesters | 1b. 209        | 1b. 82% of the students passed with a score of 65% or more. The online sections had a 75% success rate while the on campus sections had a success rate of 84%. The curriculum area of greatest success was Functions with an 80% success rate overall on campus, and online. The curriculum area with the least success was Quadratic Equations with a 50% success rate overall and in on campus classes, but a 75% success rate online. The | 1b. Not only was a success rate of 65% or higher demonstrated overall on the posttest, but also in three of the four course objectives areas of Slope & Line, Functions , and Systems & Equations. The fourth curricular area of Quadratic Equations was the only one below 65% overall and on campus. Faculty polled on this thought it might be because that topic is only discussed the two weeks prior to the posttest giving it little time to | 1b. yes                            |

| A. Student Learning Outcomes                                                         | B. Assessment Measures                                        | C. Performance Standards                                                                                  | D. Sampling Methods                                                                                 | E. Sample Size | F. Results                                                                                                                            | G. Conclusions                                                                                                                                                                                                                                                                                                                                                                                                           | H. Performance Standards Met (Y/N) |
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|                                                                                      |                                                               |                                                                                                           |                                                                                                     |                | online posttest lowest area was Slope and Line with a 67% success rate.                                                               | move into long term memory. Online students were successful in all four areas. We will repeat this same data separation next year to verify these success rates.                                                                                                                                                                                                                                                         |                                    |
|                                                                                      | 1c. Post-test in Science Proficiency                          | 1c. 65% of the students taking both the pretest and the posttest will score at least 65% on the posttest. | 1c. Pre- and Posttest data was collected from on-ground and online sections in fall-spring 2012-13. | 1c. 52         | 1c. 24/52 students (46%) scored 65% or higher on the post-test.                                                                       | 1c. Reliance on Pre-post-test results provide a measure of comprehensive learning. Essential topics, as identified by department faculty, will be identified in Science Proficiency that will be dissected from the Pre-post-test and evaluated individually. The current text in use has few supplements for student use. The instructor has investigated access to more interactive tutorials, videos, study aids etc. | 1c. No                             |
| 2. Students will be able to show significant improvement from pre-test to post-test. | 2a. Pre/Post Test In Elementary Algebra Plus with four course | 2a. 70% of the students taking both the pretest and the posttest in                                       | 2a. Students took the posttest in 17 sections representing day,                                     | 2a. 215        | 2a. 73% of the students taking the pretest and posttest improved 30% or higher overall. The percentage of those improving 30% or more | 2a. Students overall and online improved above the 30% standard. Students on campus just met the standard. Online students had greater                                                                                                                                                                                                                                                                                   | 2a. yes                            |

| A. Student Learning Outcomes                                                             | B. Assessment Measures                                                                               | C. Performance Standards                                                                      | D. Sampling Methods                                                                                             | E. Sample Size | F. Results                                                                                                                                                                                                                                                                                                                                                                                                                                   | G. Conclusions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | H. Performance Standards Met (Y/N) |
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|                                                                                          | objective areas of Order of Operations, Algebraic Expressions, Algebraic Equations, and Applications | Elementary Algebra Plus will improve at least 30%.                                            | evening, and online sections taught by both fulltime and adjunct faculty in fall, spring, and summer semesters. |                | in online was 80% while the percent on campus was only 70%. Overall average pretest score was 30% while the overall posttest score was 72%. Online students had the lowest average pretest score of 29% (31% on campus) but highest average posttest score of 74% (71% on campus). Online students also had the highest overall improvement score of 45% compared to the on campus average of 40% and an overall average improvement of 41%. | improvement because of lower pretest scores and higher posttest scores on average. Another factor may be the complexity of the online program containing interactive software and DVD lectures by the author of the book as well as the textbook. On campus classes use the same software for assignments and chapter tests and the same template for midterm and posttests. The only difference is a face-to-face lecture and questions on campus versus a DVD Lecture and e-mail questions online. On campus/ on line data will be collected next year to verify these results. |                                    |
| 2b. Pre/Post Test Intermediate Algebra with four course objective areas of Slope & Line, |                                                                                                      | 2b. 70% of the students taking both the pretest and the posttest in Intermediate Algebra will | 2b. Students took the posttest in 16 sections representing day, evening, and online                             | 2b. 204        | 2b. 80% of the students taking the pretest and posttest improved 30% or higher overall, in the online classes, and on campus. Overall average pretest score was 28% while the overall posttest                                                                                                                                                                                                                                               | 2b. The students overall as well as in both the on campus and online sections performed 10% better than the standard. The increased improvement of the online students is again                                                                                                                                                                                                                                                                                                                                                                                                   | 2b. yes                            |

| A.<br>Student Learning Outcomes                                      | B.<br>Assessment Measures                               | C.<br>Performance Standards                                                                                        | D.<br>Sampling Methods                                                                              | E.<br>Sample Size | F.<br>Results                                                                                                                                                                                                                                                                                                   | G.<br>Conclusions                                                                                                                                                                                                                                                                                                                                                       | H.<br>Performance Standards Met (Y/N) |
|----------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
|                                                                      | Functions, Systems & Equations, and Quadratic Equations | improve at least 30%.                                                                                              | sections taught by fulltime and adjunct faculty in fall, spring, and summer semesters               |                   | score was 76%. Online students had the lowest average pretest score of 24% (28% on campus) but highest average posttest score of 77% (76% on campus). Online students also had the highest overall improvement score of 53% compared to the on campus average of 48% and an overall average improvement of 49%. | because of lower pretest scores and higher posttest scores creating a greater range of performance. This online program is designed as discussed above with interactive software and lecture DVDs by the author of the book. The midterm and posttests are also based on the same template. Online/ on campus data will be collected next year to verify these results. |                                       |
|                                                                      | 2c. Pre/Post Test in Science Proficiency                | 2c. 70% of the students taking both the pretest and the posttest in Science Proficiency will improve at least 30%. | 2c. Pre- and Posttest data was collected from on-ground and online sections in fall-spring 2012-13. | 2c. 52            | 2c. 16/52 students (31%) improved their test score by more than 30%.                                                                                                                                                                                                                                            | 2c. Reliance on Pre-post-test results provide a measure of comprehensive learning. Essential topics, as identified by department faculty, will be identified in Science Proficiency that will be dissected from the Pre-post-test and evaluated individually.                                                                                                           | 2c. No                                |
| 3. Students enrolling in another course in the same subject area the | 3a. Based on results in the Entry-Level Assessment      | 3a. Students completing Elementary Algebra and                                                                     | 3a. Student success (A,B,C) was tracked from                                                        | 3a. 129           | 3a. 69.8% of the students completing Elementary Algebra made a C or higher in                                                                                                                                                                                                                                   | 3a. Students successfully completing Elementary Algebra successfully completed                                                                                                                                                                                                                                                                                          | 3a. Yes                               |

| A.<br>Student Learning Outcomes                                                                                                                               | B.<br>Assessment Measures                                                                                                                                                                          | C.<br>Performance Standards                                                                                                                                                                      | D.<br>Sampling Methods                                                  | E.<br>Sample Size                                                                                                                                                                                                                                                                                                                                                     | F.<br>Results                                                                                                                                                                                                                                                                                                                          | G.<br>Conclusions                                                                                                                                                                                                                                                                                                                                                   | H.<br>Performance Standards Met (Y/N) |
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| following semester will be successful at the same percentage rate or higher than those testing out of any previous developmental course in that subject area. | Through Fall 2011. Report compiled by Office of Accountability and Academics, December 2012.                                                                                                       | enrolling in Intermediate Algebra will make a grade of C or higher at the same percentage rate or higher than those students who test out of Elementary Algebra based on ACT/Compass cut scores. | Elementary Algebra through Intermediate Algebra for Fall 2011 students. |                                                                                                                                                                                                                                                                                                                                                                       | Intermediate Algebra in the Fall of 2011 compared to 53.3% of the students testing out of Elementary Algebra based on their ACT/Compass scores made a grade of C or better in Intermediate Algebra.                                                                                                                                    | Intermediate Algebra (grade of C or better) at a 16.5% higher rate than those who did not take the course. Remediated students completing Elementary Algebra likely improve their math skill deficiencies to perform on a competitive level with students not requiring the first course in the remediation sequence. This follows a three-year trend of increases. |                                       |
| 3b. Based on results in the Entry-Level Assessment through Fall 2011. Report compiled by Office of Accountability and Academics, December 2012.               | 3b. Students completing Int. Alg. And enrolling in College algebra (MATH 1513) or Math for Critical Thinking (MATH 1503) the next semester will make a grade of C or higher at the same percentage | 3b. Student success (A,B,C) was tracked from Intermediate Algebra through both College Algebra and Math for Critical Thinking for Fall 2011 students.                                            | 3b. 136 MATH 1513: n=133 MATH 1503: n=3                                 | 3b. 60.2% of the students completing Intermediate Algebra made a C or higher in College Algebra in fall 2011 compared to 71.1% of those students scoring high enough on the ACT to waive zero-level math. 33% of the students completing Intermediate Algebra made a C or higher in Math for Critical Thinking in fall 2011 compared to 33% of those students scoring | 3b. Students performed 10.9% below the standard in College Algebra and though a marginal sample size, did not meet the standard in Math for Critical Thinking. From 2007-2011, students taking college algebra who scored high enough on the ACT to waive zero-level remediation successfully completed the course at a rate of 68.2%. | 3b. No for College Algebra and Yes for Math for Critical Thinking though an extremely low sample size of 3.                                                                                                                                                                                                                                                         |                                       |

| A.<br>Student Learning Outcomes | B.<br>Assessment Measures | C.<br>Performance Standards                                                               | D.<br>Sampling Methods | E.<br>Sample Size | F.<br>Results                                    | G.<br>Conclusions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | H.<br>Performance Standards Met (Y/N) |
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|                                 |                           | rate or higher as those students scoring high enough on the ACT to waive zero-level math. |                        |                   | high enough on the ACT to waive zero-level math. | <p>Comparatively during the same period, 68.3% of students who were forced to enter their mathematics sequence in Elementary Algebra because of their ACT/Compass cut scores, successfully passed College Algebra.</p> <p>Of significant note during the same period is that only 58.6% of students who entered their mathematics sequence in Intermediate Algebra because of their ACT/Compass cut scores, successfully passed College Algebra.</p> <p>This analysis is based on a reasonable sample size (281 in MATH 0114; 623 in MATH 0213; 1774 in MATH 1513) over the five year period and suggests a serious consideration of adjusting the ACT cut scores in the RSU Entry-level Assessment.</p> |                                       |

| A.<br>Student Learning Outcomes | B.<br>Assessment Measures                                                                                                                       | C.<br>Performance Standards                                                                                                                                                                                                                              | D.<br>Sampling Methods                                                                                                                 | E.<br>Sample Size                    | F.<br>Results                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | G.<br>Conclusions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | H.<br>Performance Standards Met (Y/N)       |
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|                                 | 3c. Based on results in the Entry-Level Assessment through Fall 2011. Report compiled by Office of Accountability and Academics, December 2012. | 3c. 70% of the students enrolling and completing Cellular (BIOL 1144) or General (BIOL 1114) Biology the semester after taking Science Proficiency will earn a grade of C or better than students taking the course without the remediation requirement. | 3c. Student success (A,B,C) was tracked through 2011 from Science Proficiency through both Cellular (majors) and General (non-majors). | 3c. BIOL 1114: n=4<br>BIOL 1144: n=6 | 3c. 3/4 (75%) students who took Science Proficiency scored a C or better in General Biology in fall 2011. 3/6 (50%) students who took Science Proficiency scored a C or better in Cellular Biology in fall 2011. A combined 60% of students who completed Science Proficiency successfully completed their subsequent college-level biology course. This compares to 77.4% (General Biology) and 70.2% (Cellular Biology) success among students taking the college-level courses without the remediation requirement (73% combined). | 3c. From 2007-2011, students taking General Biology and Cellular Biology who scored high enough on the ACT to waive zero-level remediation successfully completed the course at a rate of 58.6% and 68.2% respectively. Comparatively during the same period, 45.5% of students who were forced to enter Science Proficiency because of their ACT/Compass cut scores, successfully passed their subsequent college-level biology courses (n=55). Though this is not a significant sample size, it is large enough to suggest a trend.<br><br>The success of students completing BIOL 0123 is annually tracked into their subsequent college-level biology courses (General or Cellular) by the Office of Accountability and Academics. However, | 3c. Yes in BIOL 1114<br>3c. No in BIOL 1144 |

| A.<br>Student<br>Learning<br>Outcomes | B.<br>Assessment<br>Measures | C.<br>Performance<br>Standards | D.<br>Sampling<br>Methods | E.<br>Sample<br>Size | F.<br>Results | G.<br>Conclusions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | H.<br>Performance<br>Standards<br>Met<br>(Y/N) |
|---------------------------------------|------------------------------|--------------------------------|---------------------------|----------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
|                                       |                              |                                |                           |                      |               | <p>the Science Proficiency course, though it has a BIOL prefix, is actually a "Science" proficiency course. Meaning, these cohorts should be tracked into their general education physical science courses as well, i.e. PHYS 1014 General Physical Science and GEOL 1014 Earth Science. The Office of Accountability and Academics has agreed to begin tracking student success into their college-level physical science courses in 2014. These data collectively will provide a more informed analysis of the efficacy of the 0123 course.</p> |                                                |

- 2) State any proposed instructional or assessment changes to be implemented for the next academic year. They should be based on conclusions reported in Part 4 (above) or on informal activities, such as faculty meetings and discussions, conferences, pilot projects, textbook adoption, new course proposals, curriculum modifications, etc. Explain the rationale for these changes and how they will impact student learning and other considerations, such as the assessment process or budget. If no changes are planned, simply state "No changes are planned."

| Student Learning Outcomes                                                                                                                                                                                                          | Instructional or Assessment Changes                                                                                                                                           | Rationale for Changes                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Impact of Planned Changes on Student Learning and Other Considerations.                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1. Students will be able to demonstrate the ability to perform at exit in Elementary Algebra, Intermediate Algebra, and Science Proficiency at a skill level that ensures success in subsequent credit-bearing classes.            | 1. Essential topics, as identified by department faculty, will be identified in Science Proficiency that will be dissected from the Pre-post-test and evaluated individually. | 1. Reliance on Pre-post-test results provide a measure of comprehensive learning. Itemizing specific, essential topics may identify some areas of particular challenge or disconnect between instruction and student learning.                                                                                                                                                                                                                                                              | 1. Difficult to address at this point and until specific topics can be identified following the fall 2013 and spring 2014 semesters. |
| 3. Students enrolling in another course in the same subject area the following semester will be successful at the same percentage rate or higher than those testing out of any previous developmental course in that subject area. | 3. The Office of Accountability and Academics has agreed to begin tracking student success into their college-level physical science general education courses in 2014.       | 3. The success of students completing BIOL 0123 is annually tracked into their subsequent college-level biology courses (General or Cellular) by the Office of Accountability and Academics. However, the Science Proficiency course, though it has a BIOL prefix, is actually a "Science" proficiency course. Meaning, these cohorts should be tracked into their general education physical science courses as well, i.e. PHYS 1014 General Physical Science and GEOL 1014 Earth Science. | 3. These data collectively will provide a more informed analysis of the efficacy of the 0123 course.                                 |

- 3) (OPTIONAL) If your department or an individual faculty member has developed a teaching technique they believe improves student learning or student engagement in the classroom, please share it below. Examples can be seen at <http://www.rsu.edu/committees/assessment/docs/FacultyInsights.pdf>. Please briefly describe the instructional practice. More detail can be communicated during the face to face peer review session. The Peer Review Report does not rate this part, but it does note whether or not any contribution has been made.

| Description                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Student Relay Races—Once we have covered a difficult chapter and are preparing for the chapter test, I split my students up into 3 groups who then go to the board and compete to see who can get a correct answer first to the problems I call out. The group with the highest score gets 3 |

| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| extra credit points, the group with the second highest score gets 2 extra credit points, and the group with the lowest score gets one extra credit point. Students can elect to NOT participate, but this happens less and less as the semester proceeds. Many groups name themselves, elect captains, and wear matching colors on relay day. It has increased participation and attendance on review days and has been mentioned on the course evaluations as a favorite course activity. I do this three or four times a semester on the review day for the chapter tests that have had the lowest performance rates over the previous four semesters. It has made the review sessions more interesting for me than just working problems on the board while the students watch and ask questions. I still do that once the relay is over, but there are fewer questions now. |  |

4) Assessment Measures:

- A. How many different assessment measures were used? Nine measures
- B. List the direct measures (see rubric): pretests and posttests in all three courses
- C. List the indirect measures (see rubric): Success in the course(s) that follow in all three courses

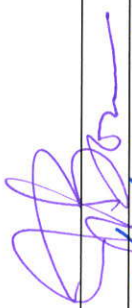
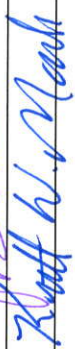
Documentation of Faculty Assessment

- 5) A. How many full time faculty (regardless of department affiliation) teach in the program? Three
- B. Provide the names and signatures of all faculty members who contributed to this report and indicate their respective roles:

| Faculty Members      | Roles in the Assessment Process<br>(e.g., collect data, analyze data, prepare report, review report, etc.) | Signatures      |
|----------------------|------------------------------------------------------------------------------------------------------------|-----------------|
| Mrs. Evalon St. John | Collect and analyze data in Developmental mathematics                                                      | Evalon St. John |
| Mrs. Sue Flaming     | Collect data in BIOL 0123                                                                                  | Sue Flaming     |

6) Reviewed by:

| Titles               | Names            | Signatures   | Date     |
|----------------------|------------------|--------------|----------|
| Department Head: MPS | Dr. Jamie Graham | Jamie Graham | 11/11/13 |

|                          |                  |                                                                                   |             |
|--------------------------|------------------|-----------------------------------------------------------------------------------|-------------|
| Department Head: Biology | Dr. Jerry Bowen  |  | 12 Nov 2013 |
| Dean                     | Dr. Keith Martin |  | 11/12/2013  |