Executive Summary

Introduction

Rochester Community and Technical College (RCTC) is submitting this Voluntary Report regarding the assessment of student learning on the recommendation of the Higher Learning Commission as outlined in the AQIP Quality Check-Up Report.

The purpose of this report is to update the Higher Learning Commission about current and future plans and progress RCTC has achieved since the AQIP Quality Check-Up visit in October 2008. This report addresses the concerns identified by the Commission and evaluator team regarding the College’s progress on the assessment of student learning.

The AQIP Quality Check-Up Report identified the following concerns:

1. The absence of specific measures and plans for assessing student learning
2. Lack of documentation for the development of student learning outcomes at both the course and program levels
3. Use of data to “close the loop” and adjust processes to improve outcomes
4. Lack of a process to help faculty create assessment plans with actions to improve student learning outcomes

This Voluntary Report will outline planned efforts being undertaken to create a systematic approach to assess student learning at RCTC. The report is organized into six sections:

I. Establishing Goals and Targets
II. Determining Student Learning Outcomes
III. Creating a Systematic, Multi-Level and Comprehensive Approach
IV. Creating a Structure Supporting Assessment
V. Supporting Professional Development
VI. Improving Student Learning through Assessment

The report also includes appendices. We look forward to your comments, questions, and any requests for additional data and information in support of Rochester Community and Technical College’s Reaffirmation of Accreditation.
Section I: Establishing Goals and Targets

The College has established dynamic, repeatable procedures to make sure that faculty and staff choose appropriate student learning goals and targets to assess. Student learning outcomes for the College have been identified. Systematic approaches have been integrated into the college planning processes that emphasize assessment. To sustain these initiatives, a focused plan to create an assessment culture is being implemented. Finally, the College has committed to building the necessary capacity to sustain assessment initiatives.

Student Learning Outcomes

1. The College has, in collaboration with faculty and other stakeholders, identified and defined six college core outcomes (See Appendix A.). As part of its participation in the Academy for the Assessment of Student Learning, the College at the Academy Roundtable established a timeline by which to pilot each core outcome. Two pilots will be completed each year (spring 2010, spring 2011 and spring 2012) and will establish baseline data and a repeatable process by which to assess student learning for each core outcome. The College as a whole will “own” these outcomes.

2. The College will identify core measures of learning that will cascade to the strategic, divisional, and discipline-level dashboards (a visual set of core measures) that have been created to measure and track learning and student success.

3. The College has established a review process by which its curriculum committee re-authenticates courses in the College’s official inventory by means of updating all Common Course Outlines (CCOs) by spring 2011. The review process will also facilitate the integration of core outcomes into course syllabi.

4. The College will undertake a process to ensure that all career and technical programs will have identified student learning outcomes that are documented in common format and housed in an accessible location by spring 2010.

Systematic, Multi-Level and Comprehensive Approaches

5. All college programs and disciplines will have assessment plans that will be documented in the annual Academic Program Review (APR). Each fall, via this process, data and information will be gathered to determine progress made towards goals and targets set, to identify best practices, and to collect data by which to assess student success for established metrics of learning. (See Appendix B for sample screens.)

6. The College will establish a systematic process to assess learning and student success in areas with large enrollments including high contact courses which are “gatekeepers” to the next college course in the discipline (spring 2010), developmental courses leading to college-level courses (spring 2010), and for two-plus-two programs measuring transfer success at the College’s learning alliance partner (Winona State University) in spring 2011.

7. The College is committed to ongoing organizational self-assessment evidenced by its participation in the Academic Quality Improvement Program (AQIP), submission of Malcolm Baldrige National Quality Award applications, and intent to participate in the Minnesota Quality Award assessment process in the 2009-10 awards cycle.
Structural Efforts to Create a Culture of Assessment

8. The College has committed to full release of a faculty member (designated as the Assessment of Student Learning Faculty Leader) in the 2009-10 academic year to facilitate dialogue in the College, support the design and implementation of assessment approaches, provide mentoring support to the faculty, and help collect data to measure student success.

9. The College will put in place a structure fostering a culture of assessment using the Assessment of Student Learning (ASL) Committee and a soon-to-be-established Core Assessment Team. These two groups will guide faculty and staff so they can implement assessment strategies. To foster this culture, the College will create communications approaches to update college leadership, program leaders and division coordinators, faculty, and staff via structured agendas, use of set-aside days and all-college staff development functions beginning in the fall of 2009.

10. The College has committed to hiring an applications developer by the fall of 2009 to provide needed assistance in the College’s effort to continuously improve upon the Integrated Planning Process (IPP) web site that facilitates the collection of data and information supporting key college processes for assessment of student learning, academic program review, budgeting and continuous improvement planning.

11. The College has committed to participate in the Higher Learning Commission’s Assessment of Student Learning Academy through the spring of 2011.

Capacity and Capability

12. The College will develop a set of strategies for faculty professional development focused on “onboarding,” orientation, and planned training to advance the assessment of student learning goals and targets beginning in the fall of 2009.

13. The College will continue to research, develop and provide technology and training support for staff using a cadre of tools to facilitate the measurement of learning and connecting the curriculum at a college, program and course level by 2011.

Section II: Determining Student Learning Outcomes

The College has in the last year used three distinct processes: a focus on institutional core outcomes, program outcomes, and course-level outcomes, all of which will be tracked on dashboards at these different levels.

Institutional Core Outcomes

The development of institutional core outcomes was put on hold in 2004 in order to focus more intently on program and course outcomes. In 2007, a MnSCU request for information about core outcomes revealed that RCTC was one of only three two-year colleges in the state that had not developed core outcomes. To respond to this situation, the ASL Committee spent the entire spring 2008 semester systematically examining what sister institutions were doing with core outcomes. Based on this information, the Committee drafted ideas for five core outcomes. These were reviewed by the curriculum committee, leadership committees, the faculty union, and the entire college during staff development days in the fall of 2008. At this later juncture, faculty proposed a sixth outcome. The six were subject to careful language review to be sure that they would be comprehensible to all staff levels at the College. The final language (see Appendix A) was introduced to all employees in the early months of 2009 during the annual Institution Planning Process (IPP) and vetted at a session of the Student...
Success Day in spring 2009 with random students in attendance at a special session focused upon institutional core outcomes. The Assessment Committee requested all functional groups provide ideas for how the six core outcomes might play out in their respective areas, and how they might be measured in the near future. These six will all be piloted; the first two—critical thinking and communication—should be concluded by the end of spring 2010.

**Program Outcomes**

The development of program outcomes followed a quite different path insofar as these outcomes vary significantly depending upon the nature of the program. These outcomes became a required part of the Academic Program Review (APR) process in 2005; MnSCU’s Board of Trustees began requiring a regular study of programs, and the College made program outcomes one of its important measures of program success. Initially every program did an Academic Program Review every three years; the College moved this self-assessment and the related scrutiny on program outcomes to an annual activity aligned with the annual IPP. The College expects that all programs and disciplines will have annual assessment plans documented at the appropriate web site. The ASL Committee recognized that a number of health-related and other career and technical programs had separate accreditations that were already focusing on student learning; the Committee embraced their individual efforts, with an understanding that a common report-out format would be needed eventually so that the institution could holistically take stock of its success in program outcomes. For many disciplines, comprising a less coherent series of courses, the Committee emphasized an examination of how prerequisite courses in the discipline were preparing students for subsequent courses. As of spring 2009, all disciplines with two or more courses are expected to provide annual information about “program” assessment.

Without question the programs at RCTC are more advanced in their efforts to collect assessment information, but such information is not housed in a common format nor in a common area. To facilitate better data collection, APR will provide a design for standard data reporting/collection beginning FY 2010.

**Course Outcomes**

The study of course outcomes had been, until early last year, an activity undertaken by individual faculty and, consequently, the results were often unrecognized and unacknowledged. Since MnSCU requires all courses in a college’s inventory to be designed in what is known as a Common Course Outline (CCO), the ASL Committee’s recent efforts have been to focus on the design of these almost 1000 courses. The curriculum committee has confirmed that student learning objectives must be a part of all CCOs, and the IPP sets as a target a review of each CCO every three years. A new staff member will work with faculty to get their learning objectives expressed in a measurable form; this effort will focus on key learning objectives, how to measure those objectives, and what course pedagogy might be needed to improve key learning.

**Section III: Creating a Systematic, Multi-Level and Comprehensive Approach**

To be effective, assessment of student learning must occur at many levels. The College has consequently developed tools and approaches that can be implemented throughout the College. By using these, the College will be able to analyze assessment data to close the loop, and make student learning decisions based upon data analysis.
Tools and Approaches

The College uses several tools and approaches in its assessment of student learning: the Academic Program Review (APR) and the Integrated Planning Process (IPP), Power of 1 classroom projects, competency testing, and computer systems.

Academic Program Review and the Integrated Planning Process

The Academic Program Review (APR) has become the key approach to assessment planning and documentation at RCTC. As stated earlier, the APR is conducted annually and linked to the Integrated Planning Process (IPP) which “ensures” that APR, non-academic self-assessments, continuous improvement plans and resource requests align with the strategic goals of the institution. These web-based, transparent processes have been internally designed and constructed; their content populates institutional and program/discipline level dashboards. In spring 2008, faculty entered sixty-one program and course-level strategies related to assessment into the IPP, and in spring 2009, programs and disciplines reported on progress made toward their many strategies in the new Assessment of Student Learning section in the APR portion of the IPP.

As shared in our 2008 AQIP Systems Portfolio, the College has in recent years grappled with the need to identify a suitable means for collecting and storing student performance data as well as documenting related improvements. In 2003, the institution had adopted eLumen; this product, then in its beta stages, was always fraught with challenges. In the 2008-2009 academic year, the ASL Committee did a thorough review of six existing assessment software products purporting to be solutions to colleges’ need to achieve student outcome assessment. The committee determined none of the products could perform data analysis and create meaningful reports without duplicating already robust APR/IPP functionality.

The Assessment Core Team and ASL Committee decided that growing the existing APR structure to store and capture the entire assessment cycle (outcome, data, analysis, actions, check) was more beneficial and efficient than purchasing yet another product within which faculty and staff must work. The Assessment Core Team will collaborate in the design of increased capability to store core, program/discipline and course level learning outcomes; this will enable a standard assessment reporting format to encourage and document the “closing of the loop” at each of these levels. APR provides for a systematic, multi-level, comprehensive measure of student learning.

Power of 1 Classroom Projects

The Power of 1 is a key process for engaging faculty across the campus in assessment. This faculty-driven process, created to simplify assessment, facilitates the creation of one assessment activity which is implemented in one upcoming semester.

The results of the assessment are used to suggest one pedagogical or curricular improvement and are summarized in one simple report. As of spring 2009, 57% of programs/disciplines have participated at a Power of 1. Throughout these Power of 1 events, ASL Committee members have provided assistance to create rubrics, competencies, check lists, shared exams and other tools for measuring student learning.
The table on the left demonstrates the diverse array of assessment tools used by the faculty to measure student learning. The type of instruments used reflects the nature of the program or discipline being represented: general education areas tend to use rubrics, checklists and pre-and post-exams, while the allied health and other programs tend to use checklists, internships, clinical, and board exams. Faculty also report using general observations and conversations as evidence of learning; indeed, faculty acknowledged consistently engaging in conversations about student learning within their discipline (16% occasionally, 37% regularly, 47% always).

**Competency Testing**

In spring 2009 three programs—Building Utilities Mechanic (BUM), Carpentry, and Automobile Mechanics—piloted the National Occupational Competency Testing Institute (NOCTI). This provides standardized skill and knowledge assessments including score reports. The data is segmented into specific skill/competency areas so that the student and the program can see where improvements are needed. The pilots have been informative. In 2009-2010 the ASL Committee will encourage this measurement option be used by other programs/disciplines.

**Computer Systems**

The College is exploring other tools. Worldwide Instructional Design System (WIDS) software will assist programs/disciplines in the early stages of assessment development to write and align learning outcomes with the content delivery and student activities. The Business Division, Child Development Program, and Occupational Skills Program will be piloting the use of WIDS in the 2009-2010 academic year. If the initial implementation is deemed successful, other areas in the early stages of assessment will be encouraged to participate with the software in 2010-2011.

Another tool facilitating assessment at RCTC is Desire2Learn (D2L), the College’s web-based course management system. The latest release of D2L includes a competency feature which states learning outcomes and links them to student activities and evaluation rubrics. When the faculty scores using the rubric, the data is stored, a grade is automatically recorded for the activity, and feedback is sent to the student. This is a significant development because it allows faculty to perform meaningful assessments while using the software and activities they already have in place.

Plans are in place for the Assessment of Student Learning Faculty Leader to work closely with the Educational Technology staff to further develop the use of the D2L competency function. The ultimate design of this competency function holds great potential for measuring the College’s core outcomes. The system may even
allow for the merging of data from the academic and support sides of the institution, both of which are responsible for supporting the core outcomes.

**Data Analysis/Closing the Loop**

Faculty and staff acknowledge a need for training in the use of data and its analysis. The Institutional Researcher and the ASL Faculty Leader will offer professional development opportunities to give faculty and staff the knowledge and skills necessary to accurately interpret their data to effect changes.

Once data has been carefully analyzed and opportunities for improvement have been recognized, faculty and staff will, if necessary, take action to propose changes in instruction, curriculum or processes that may improve student learning. The faculty/staff must also document the changes or actions taken and perform follow up assessments to determine whether or not the desired gains were made. This part of the assessment process, arguably the most important, is where many efforts currently fall short at RCTC. Administration must provide opportunities for the thorough discussion of the assessment data at Program/Discipline meetings and Staff Development Days. As previously stated, the Core Assessment team will continue to develop the APR process so that changes may be documented and the longitudinal effects on learning made visible.

The curriculum at RCTC is managed by a joint faculty/administration committee, the Academic Affairs and Standards Council (AASC). The AASC approves all curriculum changes including those submitted as part of the CCO revision cycle. The Vice President of Teaching and Learning has begun to suggest revisions to the current AASC forms, such that all will indicate the nature of the changes warranted by learning outcomes assessment, and an assertion of what core college outcomes the particular course addresses.

**Section IV: Creating a Structure Supporting Assessment**

The College now has operational structures to push the measure of student learning outcomes throughout the institution at the system, leadership, college committee, department, and faculty levels. Communications networks have been set in place to foster dialogue between these different levels.

**System Level**

The College is committed to outside activities that will, like the Academy, increase awareness and proficiency. In particular the College has committed to write a Minnesota Quality Award this year, a commitment that will sharpen the focus on key learning processes and the continuous quality direction afforded by assessment of student learning; this participation continues our ongoing commitment to institutional self-assessment and continuous self improvement.

**Leadership Level**

At the leadership level, RCTC has committed to a full release from teaching and other assignments for a key faculty leader (the Assessment of Student Learning Faculty Leader) in FY 2010. This is an increase of 25% of key faculty leadership time. The College formed an Assessment Core Team to help our faculty leader in assessment navigate the various technical, bureaucratic, and political dimensions of the institution. This team includes the institutional researcher, a new position in IT for applications development, the chief academic officer,
the head of strategic operations, and potentially others who have appropriate expertise at appropriate junctures. This team will collectively provide the direction to help our faculty leader to continue to expand interest, understanding, and meaningful work from the various members of the faculty and staff.

**College Committee Level**
The Assessment of Student Learning Committee, which has been instrumental in the progress that the College has made in assessment, has become a skilled group of individuals who can provide one-on-one assistance to individuals in the institution who have questions about various assessment projects. All members from 2008-2009 are returning in the following year; in addition, key new members are already confirmed for 2010, with expansion to include more non-faculty areas of expertise. The Committee will continue to provide general oversight as well as detailed assistance to the assessment activities and processes.

**Department Level**
As mentioned earlier, Academic Program Review (APR)—required by the Minnesota State Colleges and Universities Board of Trustees—is now an annual activity at RCTC. APR has a required section that addresses assessment activities, and is aligned with the budgeting cycle. Programs and disciplines must show good-faith efforts in assessment of learning for their requests to be considered in the budgeting process.

**Faculty Level**
The College has made a commitment to the Academy for the Assessment of Student Learning; it has sent different key faculty and staff to the first regular Academy meeting and to its consultation with the assigned mentor at the annual HLC meeting in Chicago. We now have key faculty leaders who are more keenly aware of what assessment involves—more importantly, these leaders are showing signs of engagement—and we have a faculty union that is sensitive to and encouraging of efforts to achieve both all-college and program assessments.

**Communications Networks**
Finally, communications have been significantly increased. The important monthly meeting of Program Leaders and Division Coordinators now has assessment as a standing agenda item, as does the Teaching and Learning Council (comprising deans and directors). The Vice President of Teaching and Learning has requested that all regular meetings of the President’s Leadership Team also have a regular agenda item to discuss progress in assessment during the next year. The Student Success Day Committee has even developed a special time for faculty and staff to get further training on assessment techniques. And as mentioned previously, planned training opportunities are needed in a number of key areas in order for faculty and staff to be able to successfully derive meaning from data and propose potential improvements. Further sharing of the assessment results will occur through the revised Assessment of Student Learning website. The College has committed to the hiring of additional staff so that websites, like ASL’s, can be more frequently updated. The ASL website will be enhanced to be a repository of resources, training, and results.

**Section V: Supporting Professional Development**

The College has professional development plans in place to foster assessment of student learning. By launching new initiatives that focus on new employees, administrators, and staff members, the College hopes to instill the culture of assessment throughout the institution.
New Employee Professional Development

Human Resources planning is also an AQIP Vital Few action project for the College. The emerging human resources plan is comprehensively addressing diversity, recruitment, orientation, retention, as well as personal and professional development. A revised “onboarding” process orients new faculty and staff to the college’s values, attributes, goals, vital few projects, core outcomes and the growing culture of assessment throughout the College. The ASL Committee has recommended that an assessment handbook be created and distributed to all faculty and staff at orientation. The committee will discuss the content of the handbook in fall 2009.

New faculty receive valuable training by completing the teaching and learning competency requirement associated with MnSCU’s faculty credentialing process. The training comprises four key areas: course construction, including the creation of learning outcomes; teaching and instructional methods; student outcome assessment and evaluation; and the philosophy of community and technical college education. The annual faculty evaluation process encourages faculty to design syllabi that display clear learning outcomes for every course.

Administrative Professional Development

Review of RCTC’s 2008-2009 APR feedback suggests that the academic deans themselves need instruction on the essential components of a program’s or discipline’s assessment plan as found in the APR; consequently, in 2009-2010, the ASL Core Team will offer training so that the deans can provide sensible and thorough feedback informing the faculty/staff of the strengths and weaknesses of their respective plans. As mentioned previously, faculty and staff need planned training opportunities to help them determine the meaning of various data and how to propose potential improvements. The Core Team will also coordinate the creation of modules addressing rubric development, data acquisition and documentation, and data analysis to aid with the plan’s implementation. When feasible, a train-the-trainer approach will support the use of the software, tools, and processes related to assessment. For example, the Director of Educational Technology has already committed to advanced World Wide Instructional Design System (WIDS) training; in the fall of 2009, she will train the faculty participating in the WIDS pilots. She will also assist in the development and training associated with D2L’s competency tool. Similarly, a new staff member is receiving training on learning outcomes, and starting in the fall of 2009 she will work with all faculty who are submitting proposals to AASC to ensure that all course and program outcomes are written with appropriate, measurable language.

Staff professional development

In addition, RCTC is launching a Service Collaborative initiative in the 2009-2010 academic year. The Service Collaborative will be a collection of teams who gather together to focus on a common service goal, initiative or opportunity for improvement throughout the College. The outcome is to “better serve stakeholders,” an AQIP vital few action plan. The collaborative model is patterned off a best practice used by the Mayo Clinic. Clinic representatives had mentored and consulted with a college team to apply the design concepts into a higher education setting. This initiative will engage all parts of the college in order to embed college values, service attributes and core outcomes into work processes. Over the course of a year teams will go through a plan-do-check-act problem solving process to improve, innovate and make positive change. The primary audience will be non-academic departments and service areas.
Section VI: Improving Student Learning through Assessment

The purpose of this portion of the document is to provide a few examples of assessments at the course, program/discipline, and institutional levels that have resulted in changes to curriculum or instructional methodologies to improve student learning.

At the Course Level

While attending a Power of 1 workshop, a team of math instructors developed a checklist that deconstructed the process of completing the square for a quadratic function. The checklist was used in evaluating three problems of varying difficulty dealing with completing the square in RCTC’s College Algebra course. Analysis of student performance illustrated that the students struggle most with balancing the equation to maintain equivalency. The instructors recognize this as a common error that carries forward in the curriculum and have made plans to increase the attention paid to balancing the equation. The assessment will be completed again in the fall 2009 semester to see if the instructional changes have increased student success in completing the square.

The chemistry department has four shared competencies in place for General, Organic and Biological Chemistry I. Analysis of the competency data in conjunction with the final exam shows that students perform better on questions on the final exam that are linked to the competencies. In addition, students that attempt the competency before the associated unit exam perform better than those that do not. The competencies have been further analyzed to reveal common student difficulties. For example, reported student answers frequently have the correct numbers but the incorrect magnitude. This is the result of improper calculator use. In response to this persistent, instructor-independent problem, the Learning Center Science Area has purchased over 30 scientific calculators and will be providing instructional modules on calculator use. Faculty will review competency data in spring 2010 to see if calculator errors are reduced.

The sociology department identified critical thinking as a core outcome of all their courses. The full-time faculty members met and decided upon the key sociological concepts and developed a pre- and post-test to measure student performance. The exam was administered in the Introduction to Sociology course. Students only modestly improved from the pre- to the post-test when viewing overall scores. However, individual item analysis illustrated that students had a firm grasp on some key concepts like the sociological imagination but lacked proficiency in others including conflict theory. Instructors are revisiting their presentation of this topic to increase clarity, and they are revising exams to better align with course content.
In the fall 2007 forty percent of new students taking the Accuplacer test had scores that placed them into developmental English, and in fall 2008 a mandated system-wide lowering of cut scores for placement in development English added to concerns surrounding the effectiveness of the College’s developmental program. English faculty undertook an assessment to address whether or not the cut scores had a correlation with actual student performance in developmental English. English faculty grouped students according to their Accuplacer scores (30-45, 45.1-60, 60.1-85.5) with the 30-45 category being of particular interest. Analysis of performance indicated no correlation between the Accuplacer score and course success (defined by a passing grade). The English department discussed these results and decided to allow the lower, provisional Accuplacer score of 30 to remain in place. Instructors concluded that student motivation is a more significant factor than the placement score in these developmental classes. In the 2009-2010 academic year, the department will investigate the need for a tiered developmental program.

Another interesting project within English was the comparison of student work from a traditionally-delivered course with an online accelerated option of the same course, this latter being taught in just 18 days. Papers from twenty-four students were collected by the same faculty member then holistically and blindly scored by another English colleague. The scorer determined that the literary research papers from the two groups were roughly equivalent. The instructor will continue to offer the course through the alternative delivery method.

**At the Program/Discipline Level**

RCTC’s Building Utilities Mechanic (BUM) students have routinely excelled in their licensure exams. In the spring and fall 2008 semesters, the BUM pass rates have been 100% in the Special Engineers Boiler Exam; the Refrigerant Transit and Recovery Type 1, 2, and 3; and the Second Class A Boiler Exam. To gain more information about student preparedness, the program decided to participate in the NOCTI Heating Ventilation and Air Conditioning and Refrigeration exam. The RCTC students’ average exceeded the National Average. However, opportunity for improvement clearly exists in computer literacy, so the instructors are revisiting their decision to not specifically address the skills in the curriculum. Areas of exceptional strength appear to be Installation and Service and Related Math and Science.

The Veterinary Technology Program at RCTC has an assessment plan in place as mandated by its accrediting body. The faculty annually review student performance on the Veterinary Technician National Examination (VTNE) in conjunction with feedback from students, their employers and the advisory committee. RCTC’s
students did not reach the national benchmark in the areas of pharmacology and anesthesia on the 2007 VTNE. Graduate and employer surveys also identified these areas as weaknesses. As a result, the faculty revised the curriculum adding a credit of study in each area to address the deficiencies. The spring 2009 graduating class will be the first to have completed the new curriculum. The VTNE scores and student and employer surveys will be reviewed to see if the changes have affected student performance as intended.

The RCTC Nursing Program has recently made changes to its admission point system in response to a two-year decline in the State National Council Licensure Examination. The department felt that this decline was associated with students earning entry into the program due to their completion of the required general education courses, not necessarily their high academic achievement. Previously, students earned a point towards admission for earning a C in the general education courses. Beginning with the spring 2010 cohort, points will only be assigned for courses with a B or better. The Nursing faculty and advisors believe that the higher requirement is a better reflection of the academic preparation needed for the program since all nursing courses have 78% set as the minimum for passing. The Nursing Department’s Educational Effectiveness Committee will carefully monitor the implementation and effects of the new points system.

At the Institutional Level

Licensure Exam Pass Rates for RCTC in 2007 were 93.4%, placing RCTC in the Gold Status on the Minnesota State College and University system’s dashboard. The aggregate measure for the College is a weighted average pass rate including the Associates Degree (AD) Nursing, Practical Nursing, Radiography, and Law Enforcement programs at the College. Even with the performance issues stated above, the College’s AD nursing program ranked 3rd in the state in 2007. (See Appendix C.)

RCTC has made a significant commitment to improving student success through the creation of a multidisciplinary Learning Center. The College has analyzed student utilization rates for the disciplines of English, Math and Science and found that those who use the services are more likely to get better grades than those not accessing the Learning Center. At the course level in fall 2008, Anatomy & Physiology I and General, Organic, and Biological Chemistry I students using the Learning Center were more likely to receive a passing grade versus non-users. The Science Division has requested funds to purchase more models for the facility to enhance its effectiveness.

<table>
<thead>
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<th>Year</th>
<th>Pass Rate (%)</th>
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Appendix A

RCTC Core Outcomes

Communication

Students will read, write, speak and listen professionally.

- Use the appropriate technologies
- Make meaning and connections between themselves and their audiences
- Recognize the situational aspects of communicating
- Understand and apply the conventions of discipline-specific language

Critical Thinking

Students will think systematically by integrating skills and using a variety of appropriate resources and methods.

- Gather relevant information
- Make logical connections
- Synthesize, analyze and evaluate information
- Articulate and defend ideas
- Use information to create innovative solutions
- Apply evidence based reasoning such as the scientific method

Global Awareness, Diversity

Students will demonstrate understanding of and respect for human diversity through their words and actions.

- Claim their human identity (race, culture, gender, faith, orientation, and abilities)
- Create a positive, inclusive environment that embraces diversity
- Empathize with others
- Challenge bias and inequity
- Become a citizen of the world
Civic Responsibility

Students will understand larger social issues, demonstrate social responsibility, and contribute to positive community change through civic engagement.

- Participate in service learning projects
- Contribute to campus and community organizations
- Demonstrate awareness of current societal issues and community needs
- Advocate for causes and concerns of personal interest
- Exercise rights as citizens or residents of the United States of America

Personal & Professional Accountability

Students will take ultimate responsibility for achieving their educational and personal goals.

- Exhibit honesty and respect
- Know policies and the consequences of their actions
- Prioritize tasks to maintain balance
- Be active learners
- Face experiences and challenges with a positive attitude
- Seek resources and services as needed
- Maintain physical and spiritual wellness
- Take pride in themselves and in their work

Aesthetic Response

Students will make and support personal judgments from an informed perspective.

- Receive, respond to and evaluate sensory information
- From this, develop a value system
- Use this value system to express and defend judgments
Appendix B

Annual Academic Program Review Screen Shots

Program Review Matrix for Academic Departments and Programs

Biology

Overview
- Indicator: Key Characteristics of your Program/Department/Division

What are the key characteristics of your Program/Department/Division?
Consider discussing some of the following:
- Program/Department/Division History
- Scope of Offerings
- Profile of Current Staff
- Current Partnerships and Collaborations
- Distinctive Features
- Your Competition
- Challenges and Opportunities

- This Item is not scored.

The Biology Department offers a wide variety of courses to meet the curricular needs of students in Allied Health (nursing, dental hygiene, surgical technology, radiography), cardiorespiratory disease specialists, clinical neurophysiology technology, health information technology, and medical secretary). Transfer (local work, high school students, environmental science, biology majors), pre-professional (pre-medicine, pre-veterinary, pre-pharmacy) and technical programs (horticulture and referred technician). The majority of our courses meet the National Science and Critical Thinking requirements for graduation and for the NB Transfer Curriculum. Some of our courses also meet the requirements for People and the Environment and Civic Engagement. Our courses have the largest class sizes on campus.

We have a strong partnership with the Mayo School of Health Sciences, and our AS programs articulate with Winona State University (Environmental Science), the University of Minnesota (Natural Sciences), the University of North Dakota (Laboratory Science, Histology Technology). Over the past few years, we have increased the number of sections, dropped the number of sections, dropped and online, of our courses to accommodate the increased local and national demands for employment with an education in biological and health-related fields. Our biggest challenge is filling our sophomore level courses. We see great opportunities for collaboration through student internships in Environmental Science and.

Effectiveness
- Indicator: Overall Program Effectiveness

How effective is your program/discipline in educating your students?
Examine the following data and then provide a one-paragraph response to this question:
- Review of Common Course Outlines
- Student Engagement in Off-campus Activities
- Assessment of Student Learning

Section 1

If you previously attended a Power of One, do you have any documented results related to the learning outcomes addressed with your identified project (feel free to copy and paste up to 500 words of the most relevant content from these Power of One activities or upload your Power of One report.)

In 2007 the Power of One was attended by science faculty. We developed an assessment tool to address why students may obtain grades less than C or drop a course. We contacted 158 previous students in our courses who earned D, W, or F for the course. We consisted them to determine their reason(s) for dropping the course, and ways in which we could improve their success. To summarize, no students were interested in responding (we got 2 replies but not much feedback from the students). Although the idea was great and relevant, the implementation did not work.

An assessment tool to measure student understanding of cellular respiration was developed, used, and determined to need improvement. This however, was not developed during a Power of One event.
Effectiveness

- Indicator: Overall Program Effectiveness

How effective is your program/discipline in educating your students?

Examine the following data and then provide a one-paragraph response to this question:

- Review of Course Outlines
- Student Engagement in Off-campus Activities
- Assessment of Student Learning

Section 2

- From this list of core outcomes, which ones do you and your discipline/program colleagues believe are the most applicable to your various courses/program (check all that apply)? For those selected, are you already measuring student learning and if so, what types of projects or methods are you using? Click on the core outcome to add your comment.

- Communication
- Critical Thinking
- Global Awareness, Diversity
- Civic Responsibility
- Personal and Professional Accountability
- Aesthetic Response

Would you be willing to share examples of these projects or methods?

☑ Yes ☐ No

External Exam Pass Rate

External Exam Pass Rate: Surgical Technology

This data comes from the Office of the Chancellor; it is expressed as a percent of successful completion of an external exam. Not all programs may be able to get such data.

Higher Scores are Better

<table>
<thead>
<tr>
<th>Year</th>
<th>RCTC - Students</th>
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<tbody>
<tr>
<td>95%</td>
<td>92%</td>
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Trend Score

- RCTC - Students
- [2005-2010]

Comparative Score

Target Score

Legend:
- Year
- RCTC - Students
- Trend Score
- Comparative Score
- Target Score

Source: External Exam Pass Rate

- Key Populations / Questions

- Recent All Populations
  - RCTC - Students

Inventory Responses:

- Graduate Placement Rates
- Advisory Committee Impact
- Unsatisfactory Grades
- Other data you wish to add to the measure of effectiveness
Appendix C

Licensure Pass Rate Exams

Building Utilities Mechanic

Building Utilities Mechanic (BUM) students are certified in Upinor and Gastite piping systems as part of their skills training. Other exams include a refrigerant certificate exam, the State of Minnesota Special Engineers Boiler Licensing Exam, and the State of Minnesota Second Class A Boilers Exam. Pass rates have been 100% for spring and fall 08 semesters for all of these exams.

Health Information Technology (HIT)

External exam pass rates for Health Information Technology (HIT) students for the period of April 1, 2008 through September 30, 2008, were 89% per the Commission on Accreditation for Health Informatics and Information Management Education (CAHIM). For the period of October 1, 2008 to December 1, 2008 the pass rate was 83%. The American Health Information Management Association (AHIMA) score for October 1, 2007 to September 30, 2008 is 90%, a significant improvement over the previous year's report.

Medical Secretary/Transcriptionist

One hundred percent or 26 medical secretary/transcriptionist students passed the Mayo Clinic employment exam on their first attempt.

Dental Assisting

There were twenty-three Dental Assisting students in the 2007-2008 summer graduating class. Twenty-three graduates took and passed the Minnesota Dental Jurisprudence Exam (22 passed on the 1st attempt). Twenty-three took and passed the Minnesota Registration Exam (20 passed on the first attempt). Additionally, 17 took and passed the National Certification Exam (15 passed on the first attempt).

Dental Hygiene

One hundred percent of the 12 Dental Hygiene graduates passed the national board examination on first attempt. Eighty-three percent (10 students) passed the regional exam on first attempt. One hundred percent passed on the second attempt. One hundred percent passed the Minnesota Dental Jurisprudence Exam on first attempt.

Intensive Care Paramedic (ICP)

The external exam pass rate Intensive Care Paramedic (ICP) graduates for the period of 2005 to 2007 is 100%. The external exam pass rate is based on the target of first pass success on the National Registry examination. Beginning in 2009, students are required to pass a validated practice exam offered through FISDAP (Field Internship Student Data Acquisition Project) before being allowed to move on to the national exam. We believe that changes to the admission criteria approved by AASC this year will assist in bringing more prepared students to this program.
**Law Enforcement**

In 2006 the Law Enforcement program had a 37% increase in the number of students who passed the external exam. For the 2006 and 2007 reporting periods, the pass rate on the Peace Officers exam was 100%.

**Practical Nurse (LPN)**

The Practical Nursing Department monitors the State NCLEX (National Council Licensure Examination) program results and compares with the state results. For 2008, the Practical Nurse (LPN) program had an overall pass rate of 100%, an increase from 2007 which was 88.9%. It is noteworthy that each year RCTC graduates surpassed the United States and Minnesota average pass rates.

**Nursing AD (Associate Degree)**

The Nursing (AD) licensure pass rate exam for 2008 is 91.3%. The Nursing (AD) licensure pass rate exam performance is the result of several efforts taken to foster student success. First, RCTC has stringent admissions standards. The program also uses HESI (Health Education Systems, Inc.) exams as an approach to measure learning using pre-test and exit exams prior to graduation; these exams assess students’ knowledge, abilities to apply nursing concepts, and preparedness for licensing exams. A third action taken by the program is to offer an additional skills course in summer months that allow students who feel the need for additional skills development before graduating and entering the workforce. The Nursing AD program also adheres to the clinical practice standards set forth by the Mayo Clinic. Also, a final contributing factor influencing Nursing performance results is that the program is among the nine of nineteen associate degree programs statewide that is accredited by the National League for Nursing Accrediting Commission (NLNAC).

**Radiography**

The Radiography program is an affiliate program with the Mayo School of Health Sciences (MSHS). The first time national board pass rates are 100% for 2006 and 2007.

**Surgical Technologist (ST)**

The External Exam Pass Rate for Surgical Technologist graduates in 2007 was 100%. The certification exam for surgical technologists is optional. Most of the graduates take the exam after graduation because the Mayo Clinic requires Certification as a condition of employment. Exact rates have been hard to tract, because the reports are given for anyone that ever graduated from the program that took the exam over a given year. Passage rates are obtained by graduate surveys, student calls, and employment at Mayo. Beginning May 2009 students were required to take the Certified Exam before graduation. It is a reportable outcome for Accreditation. The exam is now given by a new testing agency, will be taken at RCTC, and better passage rate statistics will be available for the programs.

**Veterinary Technician**

The 2007 pass rate for Veterinary Technician graduates was 33%; consequently, major curriculum changes have been made in the program. (See Section VI: Improving Student Learning through Assessment for a summary of planned Veterinary Technician curriculum improvements made.)