STARK STATE COLLEGE
ASSESSMENT SUMMARY REPORT

Department/Division	Chair/Dean
Sciences	**James Treacle, Dean**
Degree Program(s)/Options(s)/Certificates(s)	**Academic Year (20xx/20xx)**
AS General, AS General w/ Kent, Biology, Chemistry, Biotechnology and Biotechnology CEC. (Computational Science was retired this year)	**2013/2014**

The annual assessment summary report assists the College in documenting assessment progress and provides department chairs with assessment data needed to complete their academic program review. Department chairs will summarize information for the courses assessed in their department during the academic year. Chairs will forward their department summary report to their dean by June 14. Deans will summarize information for the courses assessed in their division and forward their division report to the Provost by July 7. The Provost will prepare an Academic Affairs' assessment report by July 31.

1. Summary of milestones

a. Courses assessed/total number of eligible courses in your department or division = 15/45 = 33% (ex. 8/45=18%)

*****Eligible courses reflect all approved courses in your department/division, including courses with an effective date, during this academic year.***

(Please provide numbers, including zero (0), in the blanks below. These numbers reflect all the SECTIONS that have been assessed. If not applicable, indicate with an NA.)

Faculty:	23 FT	42 Adjunct		
Modality:	82 F2F	8 W2	8 W3	N/A W4
Campus:	89 Main	9 Satellite	5 Dual Enrollment	2 Early College
Time:	78 Day	20 Evening	6 Weekend	

b. Courses re-assessed during this past academic year = 2

*****Report number of courses as re-assessed only if they fell below the college minimum standard of 70% OVERALL.***

(Please provide numbers, including zero (0), in the blanks below. These numbers reflect all the SECTIONS that have been re-assessed. If not applicable, indicate with an NA.)

Faculty:	5 FT	26 Adjunct		
Modality:	29 F2F	N/A W2	2 W3	N/A W4
Campus:	18 Main	7 Satellite	3 Dual Enrollment	1 Early College
Time:	19 Day	9 Evening	1 Weekend	

c. Programs, options,certificates affected byassessment/eligible programs,options,certificates= 5/5 = 100% (ex. 1/3=33%)

d. Departments participating in assessment/eligible departments= 3/3 =100% (**To be completed by Deans ONLY)** (ex. 4/4=100%)

2. Provide a brief summary of the previous year's data that was collected related to the outcomes and the plans for improvement implemented. Did the plans for improvement implemented assist the department in achieving the goals?

The Science courses assessed last year included: BIO121 (Anatomy & Physiology I), BIO122 (Anatomy & Physiology II), BIO123 (Principles of Human Structure & Function), BIO125 (Medical Terminology), BIO126 (Science, Energy, and the Environment), BIO127 (Human Biology), BIO128 (Climate Studies), BIO130 (Ocean Studies), BIO222 (Pharmacology), BIO242 (Cell & Molecular Biology), BST225 (Biotechnology Instrumentation). CHM101 (intro to Chemistry), CHM121 (General, Organic and Biochemistry I) and PHY121 (College Phyics I w/ Algebra). BIO101 (Intro to Anatomy and Physiology) and BIO127 (Human Biology) were reassessed.

All of the above courses met the success benchmark of 70%, with the exception of BIO127 which fell below the benchmark in Effective Communication (GLO1) and Quantitative Literacy (GLO2) in Fall 2013. The course was reassessed in the spring, however Effective Communication still did not achieve the 70% benchmark. This course will be reassessed in Fall 2014. BIO101 was reassessed in Spring 2014 as it fell below the 70% benchmark for Effective Communication (GLO1) in the Spring 2013. A pilot was run in the fall which introduced journaling. This was then implemented in the spring across all sections. When reassessed Spring 2014, Effective Communication had 76% pass rate. This course is scheduled to have a full assessment in the fall of 2014.

While the rest of the courses have met assessment benchmarks, we will continue to integrate SLC based activities into the science curricula including journaling for the gateway science courses, success workshops, and open labs for Biology and Physics. As we add more success focused activities, we have observed an increase in voluntary use of the center.

3. List the evaluation methods used to evaluate the GLOs and PLOs. Refer to examples on the course assessment templates and in the assessment handbook available on *mystarkstate*.

General Learning Outcomes (GLOs)		Program Learning Outcomes (PLOs)
Written exams, quizzes (multiple choice, matching, short answer, essay, includes proper spelling); Comprehensive final exam	Effective Communication (GLO1); Quantitative Literacy (GLO2); Information Literacy (GLO3); Critical Thinking (GLO4); Global and Diversity Awareness (GLO5); Civic, Professional, and Ethical Responsibility (GLO6)	Laboratory notebook from BST273 – Biotechnology Independent Study
Written Lab Reports	Effective Communication (GLO1); Quantitative Literacy (GLO2); Information Literacy (GLO3); Critical Thinking (GLO4); Ethical	Performance review from BST273 – Biotechnology Independent Study

	Responsibility (GLO6)	
Laboratory Notebook	Effective Communication (GLO1); Critical Thinking (GLO4); Ethical Responsibility (GLO6)	Seminar Presentation from BST230 – Biotechnology Seminar II
Laboratory Experiments	Quantitative Literacy (GLO2)	
Research Papers	Effective Communication (GLO1); Information Literacy (GLO3); Critical Thinking (GLO4)	
Exhibitions and Demonstrations	Quantitative Literacy (GLO2); Information Literacy (GLO3); Critical Thinking (GLO4)	
Research Project	Effective Communication (GLO1); Quantitative Literacy (GLO2); Information Literacy (GLO3); Critical Thinking (GLO4); Civic, Professional, and Ethical Responsibility (GLO6)	
Online Homework	Effective Communication (GLO1); Quantitative Literacy (GLO2); Information Literacy (GLO3); Critical Thinking (GLO4); Civic, Professional, and Ethical Responsibility (GLO6)	

4. What evidence do you have that students achieved or did not achieve the learning outcomes? (Please include evidence of students achieving the learning outcomes.)

The GLO's identified on the master syllabus were reviewed for accuracy. Course objectives that support the GLO's were also identified. The raw numbers and percentages of students were then reported for each section of the course. If 70% or more of the class achieved below the 70% College standard, plans for improvement were identified. The sections assessed were then summarized to create a course summary. Course summaries for each of the courses assessed were used to identify areas where the general learning outcomes were achieved and areas for improvement.

This year 15 courses offered in the Sciences Division were assessed and two courses were reassessed. In all but one of the courses assessed this academic year, composite results indicated students achieved a 70% or higher in all of the General Learning Outcome (GLO) categories.

5. Outline and summarize the action plans that have been developed to improve student learning based on the evidence for this year.

Although most of the assessed sections were successful, the departments have each devised plans based on this years summary for increasing success.

Biology:
Course mentors will create a standardized rubric for grading the essay question being used for the assessment.
BIO121 instructors will create a departmental comprehensive final that would allow for a better measurement of student achievement.
In BIO126, modifications will be made to two labs performed during the semester to strengthen the student's ability to present and understand data.
In BIO101, new assignments were implemented that required students to attend Student Success workshops presented by Melanie Carr and science faculty, as well as visit the Science Learning Center. This appears to have had a positive impact on Effective Communication (GLO1). In addition, student workers were used in open lab as well as in laboratory classes to provide additional help to students. This has been very successful for both the students receiving the help as well as those providing the help.

Chemistry:
In CHM 101, students will keep journals where they will write about selected topics in the course. We will also require CHM 101 students to attend a 1/2 hour workshop on how to study for a science class, which they will have to write about in their journals.
In CHM121, the instructors agreed to review the exams and to more strongly emphasize problem solving in the lectures. Moreover, to further strengthen the outcomes in GLO's 1 and 4, the lab manual was rewritten by the faculty in which the use of the Scientific Method and good report writing was emphasized.

Physics:
In PHY121, exams will be reviewed for alignment with material and emphasis for each semester. They will also emphasize the importance of online homework and its correlation to success in the class overall and spend more time on problem solving examples and techniques.

6. What steps did you take to ensure shared responsibility from faculty/staff/students/advisory boards/etc. for student learning and assessment of student learning?

Assessment is included as an agenda item at division and department meetings.

All Master and Course Syllabi, as well as other shared resources, are posted on Angel for access by all full-time and adjunct faculty.

Assessment training is held for the course mentors/facilitators to assist them in preparing for the assessment process. As courses are assessed, there is regular email and phone contact with all faculty involved in the assessment process.

Advisory committees meet once each semester to ensure that our courses provide the outcomes necessary for our students to be competitive in the current job market.

Full-time faculty form small groups to evaluate specific courses, including text book review, grading rubrics, standardized assignments, as well as brainstorm idea to help improve student success in courses with high WDF rates.

Full-time faculty have included a student success goal on their Performance Evaluations.

Each full-time faculty serves as a course mentor for at least one course.

Course mentors examine retention and enrollment reports to target specific areas for improvement.

Each full-time faculty vokunteers at least one office hour in the SLC.

Faculty refer to areas of the Divisional Strategic Plan that addresses student learning and success.

7. Identify the steps you plan to take to improve the effectiveness of the efforts to assess and improve student learning for next year.

Steps for Improvement	Resource(s) Needed
Monitor success of grading rubrics.	Focus group meetings to review the results when rubrics were used.
Plan active learning educational opportunities in the Science Learning Center	Science Learning Center personnel. May required additional physical space (additional room) and/or computers.
Expand peer mentoring in open labs and in faculty lab courses.	Student peers, Biology Department lab coordinator, select faculty. Funding.
Provide regular Science Learning Center workshops on topics students find especially difficult.	Additional faculty; additional classroom space outside of the Science Learning Center.
Encourage faculty attendance at Best Practices workshops and professional development opportunities.	Funding for off-campus professional development opportunities.
Review the outcomes of faculty's student success goals (addressed on Performance Evaluations).	Meet with faculty throughout the year to review the progress they are making on their goals and assess if additional resources are needed.
Track enrollment and retention data to measure the effectiveness of action plans from current and past assessment periods.	Access to reports in ARGOS; Biology faculty sub-committee to review the data and report findings and suggestions to the department.
Revise lab manuals.	Time