



Program Review 2015-2016

Physical Science Division Physics

Update Only

Author(s)

A. Relation to Mission and Vision Statements

Section A applies to all programs and services.

GLENDALE COMMUNITY COLLEGE MISSION STATEMENT

Glendale Community College serves a diverse population of students by providing the opportunities and support to achieve their educational and career goals. We are committed to student learning and success through transfer preparation, certificates, associate degrees, career development, technical training, continuing education, and basic skills instruction. The college is dedicated to the importance of higher education in the evolving urban environment of Glendale and the Greater Los Angeles area. Faculty and staff engage students in rigorous and innovative learning experiences that enhance and sustain the cultural, intellectual, and economic vitality of the community.

As part of its mission, Glendale Community College is committed to student success by promoting:

- communication, critical thinking, information competency, quantitative reasoning, global awareness, personal responsibility, and application of knowledge [ILOs];
- coherence among disciplines and promotion of openness to the diversity of the human experience;
- student services, learning support, and state of the art technology, including distance education modalities, that enable students to reach their educational goals in an efficient and timely manner.

GLENDALE COMMUNITY COLLEGE VISION STATEMENT

Glendale Community College is the Greater Los Angeles Region's premier learning community where all students achieve their informed educational goals through outstanding instructional and student services, a comprehensive community college curriculum, and educational opportunities found in few community colleges.

Components Addressed by Program:

Question A.1. Check each component of the mission statement and ILOs that your program addresses:

Mission Statement Components

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Transfer preparation | <input checked="" type="checkbox"/> Technical training | <input type="checkbox"/> Enhance and sustain cultural vitality of community |
| <input type="checkbox"/> Certificates | <input type="checkbox"/> Continuing education | <input checked="" type="checkbox"/> Enhance and sustain intellectual vitality of community |
| <input checked="" type="checkbox"/> Associate degrees | <input type="checkbox"/> Basic skills instruction | <input type="checkbox"/> Enhance and sustain economic vitality of community |
| <input checked="" type="checkbox"/> Career development | <input checked="" type="checkbox"/> Rigorous and innovative learning experiences | |

Institutional Learning Outcomes (ILOs)

- Communication
- Mathematical Competency/Quantitative Reasoning
- Information Competency (literacy)
- Critical Thinking
- Global Awareness and Appreciation
- Personal Responsibility

Other Components of Mission

- Coherence among disciplines
- Promotion of openness to diversity
- Student services
- Learning support
- State of the art technology

Vision Statement Components

- Premier learning community
- Students achieve their informed educational goals
- Outstanding instructional and student services
- Comprehensive community college curriculum
- Educational opportunities found in few community colleges

Question A.2. Define the mission of your program and how it relates to the college mission and vision.

The physics department serves a wide variety of students pursuing careers in not only physics but also chemistry, biology, health care, and engineering. In doing so, the department strives to provide a rigorous curriculum in physics as the foundation for all disciplines in science, technology and engineering. More specifically, the department's mission includes the following:

- Prepare students in STEM disciplines for transfer to competitive four-year universities.
- Provide students with a sound foundation for their education in chemistry, biology, health care, and engineering.
- Equip students with a working knowledge that empowers them to make decisions in a world that is increasingly dominated by science and technology.
- Train students to think analytically, to reason logically, and to solve complex problems systematically.
- Improve the efficacy of physics education by adopting innovative teaching strategies, using new classroom technologies, and incorporating results from current research in pedagogy.
- Encourage students, especially those from underprivileged backgrounds, to pursue careers in STEM disciplines.
- Provide a learning environment that inspires students and nourishes their curiosity.

B. Trend Analysis

Section B.1. Instructional Trend Data

Section B.1 applies only to instructional programs.

Physics

	2012-2013	2013-2014	2014-2015	Change Trend
FTES	120	122	115	-4.2% stable
FTEF	6.0	5.4	5.4	-10.0% decreasing
WSCH Per FTEF	634	719	675	6.4% stable
FT Percent	53.3%	45.7%	37.0%	-16.3% decreasing
Credit Fill Rate	104.4%	103.4%	96.6%	-7.7% stable
Noncredit Fill Rate				
Success Rate: All Classes	76.4%	77.6%	77.5%	1.1% stable
Success Rate: Online Classes	76.4%	77.6%	77.5%	1.1% stable
Success Rate: Hybrid Classes	76.4%	77.6%	77.5%	1.1% stable
Success Rate: Face-to-Face Classes	76.4%	77.6%	77.5%	1.1% stable

Section B.2. Trend Data for Non-Instructional Programs

Section B.2 applies only to non-instructional programs and services.

Please provide the following information for the service functions within your area. Use the data to indicate trends (e.g., steady, increasing, decreasing, etc.) for each of the following measures.

Service/Function	Service Contacts	Other
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Question B.1. Declining trends of at least 10% are flagged above. For each of the flagged trends, evaluate your program based on the data provided. Refer to Section E below to address problematic trends in your program plan.

Question B.1 applies to all programs and services.

--FTES has increased by 8.9%. We anticipate that this growing trend will continue in the coming years as interest in STEM disciplines increases. This trend indicates an opportunity for growth in the physics department. We believe that our growth in this area has in fact been suppressed by limitations in resources, including personnel and equipment.

--FTEF has decreased by 13.4%. The physics department has traditionally been a small department. In 2011, Rick Guglielmino, who was a full-time member of the faculty, became the division chair. This significantly reduced his involvement in teaching activities. In 2014, Prof. Guglielmino retired, leaving only one full-time faculty member in the entire department. In spite of the reduction in faculty (FTEF), the number of students (FTES) in the department has increased. We hope to grow the department by hiring a new full-time faculty member in 2015.

--WSCH per FTEF has increased by 25.8%. This is primarily the result of a rise in students (FTES) and the concomitant reduction in faculty (FTEF). In response, we have dramatically increased the efficiency of our department by accommodating larger classes. Our current value for WSCH per FTEF is 719, which is significantly above the state target of 525, and indeed higher than any other department in the Physical Sciences Division.

--FT Percent has decreased by 11.5%. As already mentioned, Rick Guglielmino, who was a full-time member of the faculty, became the division chair in 2011. This significantly reduced his involvement in teaching activities. Consequently, we have had to rely progressively more on adjunct faculty. This trend is likely to continue because Prof. Guglielmino retired in June of 2014.

--Credit Fill Rate has increased by 8.6%. For the past two years our fill rate has been over 100%. Every indication is that this trend will continue. This trend represents a growth opportunity, which we cannot presently take advantage of because of limitations in personnel and equipment. Our department currently consists of one full-time and four part-time faculty members. For comparison, the physics department at our nearest competitor, Pasadena City College, consists of five full-time and nine part-time faculty members. There is certainly a demand for physics education. However, meeting that demand has been a challenge for our college.

--Success Rate has increased by 3.9%. The success rate in physics is the highest in the Physical Sciences Division. Our success rate is strongly correlated with the college's transfer rate. UC and CSU campuses require three semesters of physics (Phys 101, 102, 103) from all engineering majors. Therefore, success in these core classes is an essential ingredient for

C. Student Learning and Curriculum

Section C.1. Course Assessments for Programs with Courses

Section C.1 applies only to instructional programs.

The table below shows courses associated with this program that were offered in the past three years. If there are additional courses in your program such as Independent Study courses or new courses that have not yet been taught, contact Ed Karpp (ekarpp@glendale.edu).

For each course listed in the scrolling table, please enter assessment information, update the relationship of the course to GCC's

ILOs, and review the course's prerequisites, corequisites, and advisories on recommended preparation (if any). [Note on printed/PDF version: The table below lists a maximum of 35 courses. For programs with more than 35 courses, see the online document.]

PHY 049

Assessment of SLOs

Current SLOAC Status: Last Assessed:

When will this course be assessed next?

Describe the course's assessment cycle:

When will the course undergo curriculum review next?

Describe changes made due to assessments:

Comments on assessment:

Relation of Course to ILOs

Indicate which level (none, introductory, developmental, mastery) best describes the relationship of the course to GCC's Institutional Learning Outcomes (ILOs).

- | | | | | |
|---|----------------------------|--|---------------------------|--|
| 1. Communication | <input type="radio"/> None | <input type="radio"/> Intro | <input type="radio"/> Dev | <input checked="" type="radio"/> Mastery |
| 2. Mathematical Competency/Quantitative Reasoning | <input type="radio"/> None | <input type="radio"/> Intro | <input type="radio"/> Dev | <input checked="" type="radio"/> Mastery |
| 3. Information Competency (literacy) | <input type="radio"/> None | <input type="radio"/> Intro | <input type="radio"/> Dev | <input checked="" type="radio"/> Mastery |
| 4. Critical Thinking | <input type="radio"/> None | <input type="radio"/> Intro | <input type="radio"/> Dev | <input checked="" type="radio"/> Mastery |
| 5. Global Awareness and Appreciation | <input type="radio"/> None | <input checked="" type="radio"/> Intro | <input type="radio"/> Dev | <input type="radio"/> Mastery |
| 6. Personal Responsibility | <input type="radio"/> None | <input type="radio"/> Intro | <input type="radio"/> Dev | <input checked="" type="radio"/> Mastery |

Course Review

For courses in CTE programs, please review the course's prerequisites, corequisites, and advisories on recommended preparation (if applicable).

Current Course Requisite(s): Result of Requisite Review:

TOP Code Is a change in TOP or SAM code necessary?
SAM Code Yes No

If a change is necessary, please describe it:

PHY 101

Assessment of SLOs

Current SLOAC Status: Last Assessed:

When will this course be assessed next?

Describe the course's assessment cycle:

When will the course undergo curriculum review next?

Describe changes made due to assessments:

Comments on assessment:

Relation of Course to ILOs

Indicate which level (none, introductory, developmental, mastery) best describes the relationship of the course to GCC's Institutional Learning Outcomes (ILOs).

- 1. Communication None Intro Dev Mastery
- 2. Mathematical Competency/Quantitative Reasoning None Intro Dev Mastery
- 3. Information Competency (literacy) None Intro Dev Mastery
- 4. Critical Thinking None Intro Dev Mastery
- 5. Global Awareness and Appreciation None Intro Dev Mastery
- 6. Personal Responsibility None Intro Dev Mastery

Course Review

For courses in CTE programs, please review the course's prerequisites, corequisites, and advisories on recommended preparation (if applicable).

Current Course Requisite(s):

Result of Requisite Review:

Prerequisite: PHY 105 or physics taken in high school with a grade of "C" or better and MATH 103. (MATH 104 must be taken concurrently with or prior to taking PHY 101.)

TOP Code

Is a change in TOP or SAM code necessary?

SAM Code

Yes No

If a change is necessary, please describe it:

PHY 102

Assessment of SLOs

Current SLOAC Status:

Last Assessed:

When will this course be assessed next?

Describe the course's assessment cycle:

When will the course undergo curriculum review next?

Describe changes made due to assessments:

Comments on assessment:

Relation of Course to ILOs

Indicate which level (none, introductory, developmental, mastery) best describes the relationship of the course to GCC's Institutional Learning Outcomes (ILOs).

- 1. Communication None Intro Dev Mastery
- 2. Mathematical Competency/Quantitative Reasoning None Intro Dev Mastery
- 3. Information Competency (literacy) None Intro Dev Mastery
- 4. Critical Thinking None Intro Dev Mastery
- 5. Global Awareness and Appreciation None Intro Dev Mastery
- 6. Personal Responsibility None Intro Dev Mastery

Course Review

For courses in CTE programs, please review the course's prerequisites, corequisites, and advisories on recommended preparation (if applicable).

Current Course Requisite(s):

Result of Requisite Review:

Prerequisite: PHY 101 and MATH 104.

TOP Code

Is a change in TOP or SAM code necessary?

SAM Code

Yes No

If a change is necessary, please describe it:

PHY 103

Assessment of SLOs

Current SLOAC Status:

Last Assessed:

When will this course be assessed next?

Describe the course's assessment cycle:

Questions on both laboratory assignments and the final exam will be used to specifically test the learning outcomes

When will the course undergo curriculum review next?

Describe changes made due to assessments:

Comments on assessment:

Relation of Course to ILOs

Indicate which level (none, introductory, developmental, mastery) best describes the relationship of the course to GCC's Institutional Learning Outcomes (ILOs).

- | | | | | |
|---|----------------------------|-----------------------------|--------------------------------------|--|
| 1. Communication | <input type="radio"/> None | <input type="radio"/> Intro | <input checked="" type="radio"/> Dev | <input type="radio"/> Mastery |
| 2. Mathematical Competency/Quantitative Reasoning | <input type="radio"/> None | <input type="radio"/> Intro | <input type="radio"/> Dev | <input checked="" type="radio"/> Mastery |
| 3. Information Competency (literacy) | <input type="radio"/> None | <input type="radio"/> Intro | <input checked="" type="radio"/> Dev | <input type="radio"/> Mastery |
| 4. Critical Thinking | <input type="radio"/> None | <input type="radio"/> Intro | <input type="radio"/> Dev | <input checked="" type="radio"/> Mastery |
| 5. Global Awareness and Appreciation | <input type="radio"/> None | <input type="radio"/> Intro | <input type="radio"/> Dev | <input type="radio"/> Mastery |
| 6. Personal Responsibility | <input type="radio"/> None | <input type="radio"/> Intro | <input type="radio"/> Dev | <input type="radio"/> Mastery |

Course Review

For courses in CTE programs, please review the course's prerequisites, corequisites, and advisories on recommended preparation (if applicable).

Current Course Requisite(s):

Result of Requisite Review:

Prerequisite: PHY 101 and MATH 104.

TOP Code

Is a change in TOP or SAM code necessary?

SAM Code

Yes No

If a change is necessary, please describe it:

PHY 105

Assessment of SLOs

Current SLOAC Status:

Last Assessed:

When will this course be assessed next?

Describe the course's assessment cycle:

When will the course undergo curriculum review next?

Describe changes made due to assessments:

Comments on assessment:

Relation of Course to ILOs

Indicate which level (none, introductory, developmental, mastery) best describes the relationship of the course to GCC's Institutional Learning Outcomes (ILOs).

- 1. Communication None Intro Dev Mastery
- 2. Mathematical Competency/Quantitative Reasoning None Intro Dev Mastery
- 3. Information Competency (literacy) None Intro Dev Mastery
- 4. Critical Thinking None Intro Dev Mastery
- 5. Global Awareness and Appreciation None Intro Dev Mastery
- 6. Personal Responsibility None Intro Dev Mastery

Course Review

For courses in CTE programs, please review the course's prerequisites, corequisites, and advisories on recommended preparation (if applicable).

Current Course Requisite(s):

Result of Requisite Review:

TOP Code

Is a change in TOP or SAM code necessary?

SAM Code

Yes No

If a change is necessary, please describe it:

PHY 106

Assessment of SLOs

Current SLOAC Status:

Last Assessed:

When will this course be assessed next?

Describe the course's assessment cycle:

When will the course undergo curriculum review next?

Describe changes made due to assessments:

Comments on assessment:

Relation of Course to ILOs

Indicate which level (none, introductory, developmental, mastery) best describes the relationship of the course to GCC's Institutional Learning Outcomes (ILOs).

- 1. Communication None Intro Dev Mastery
- 2. Mathematical Competency/Quantitative Reasoning None Intro Dev Mastery
- 3. Information Competency (literacy) None Intro Dev Mastery
- 4. Critical Thinking None Intro Dev Mastery
- 5. Global Awareness and Appreciation None Intro Dev Mastery
- 6. Personal Responsibility None Intro Dev Mastery

Course Review

For courses in CTE programs, please review the course's prerequisites, corequisites, and advisories on recommended preparation (if applicable).

Current Course Requisite(s):

Result of Requisite Review:

Prerequisite: PHY 105.

TOP Code

Is a change in TOP or SAM code necessary?

SAM Code

Yes No

If a change is necessary, please describe it:

PHY 110

Assessment of SLOs

Current SLOAC Status:

Last Assessed:

When will this course be assessed next?

Describe the course's assessment cycle:

When will the course undergo curriculum review next?

Describe changes made due to assessments:

Comments on assessment:

Relation of Course to ILOs

Indicate which level (none, introductory, developmental, mastery) best describes the relationship of the course to GCC's Institutional Learning Outcomes (ILOs).

- 1. Communication None Intro Dev Mastery
- 2. Mathematical Competency/Quantitative Reasoning None Intro Dev Mastery
- 3. Information Competency (literacy) None Intro Dev Mastery
- 4. Critical Thinking None Intro Dev Mastery
- 5. Global Awareness and Appreciation None Intro Dev Mastery
- 6. Personal Responsibility None Intro Dev Mastery

Course Review

For courses in CTE programs, please review the course's prerequisites, corequisites, and advisories on recommended

preparation (if applicable).

Current Course Requisite(s):

Result of Requisite Review:

TOP Code

Is a change in TOP or SAM code necessary?

SAM Code

Yes No

If a change is necessary, please describe it:

Assessed Courses: 7

Total Courses: 7

Assessment Rate: 100.0%

C1. If there are any courses or programs for which your assessment cycle has not been followed, list them and describe how you plan to address the situation.

Please limit your response to 250 words.

Question C.1 applies only to instructional programs.

The assessment cycle has been followed for all courses in the physics department.

Section C.2. Program/Service Assessments

Section C.2 applies to all programs and services.

[Note on printed/PDF version: The table below lists a maximum of 6 programs/PLOs. For programs with more than 6, see the online document.]

Physics AS-T

Assessment of SLOs Current SLOAC Status:

Last Assessed:

When will this program be assessed next?

Describe the program's assessment cycle:

When will the program undergo curriculum review next?

Describe changes made due to assessments:

Relation of Program to ILOs:

Indicate which level (none, introductory, developmental, mastery) best describes the relationship of the program to GCC's Institutional Learning Outcomes (ILOs).

- | | | | | |
|---|----------------------------|-----------------------------|--------------------------------------|-------------------------------|
| 1. Communication | <input type="radio"/> None | <input type="radio"/> Intro | <input type="radio"/> Dev | <input type="radio"/> Mastery |
| 2. Mathematical Competency/Quantitative Reasoning | <input type="radio"/> None | <input type="radio"/> Intro | <input checked="" type="radio"/> Dev | <input type="radio"/> Mastery |
| 3. Information Competency (literacy) | <input type="radio"/> None | <input type="radio"/> Intro | <input type="radio"/> Dev | <input type="radio"/> Mastery |
| 4. Critical Thinking | <input type="radio"/> None | <input type="radio"/> Intro | <input checked="" type="radio"/> Dev | <input type="radio"/> Mastery |
| 5. Global Awareness and Appreciation | <input type="radio"/> None | <input type="radio"/> Intro | <input type="radio"/> Dev | <input type="radio"/> Mastery |
| 6. Personal Responsibility | <input type="radio"/> None | <input type="radio"/> Intro | <input type="radio"/> Dev | <input type="radio"/> Mastery |

Institution-Set Standards (CTE Degree/Certificate Programs Only):

CTE degree and certificate programs must set a minimum standard for employment rate and, where applicable, minimum

standards for licensure pass rates.

Employment Rate Trends (CTE Core Indicators)

2011-2012:

2012-2013:

Employment Standard: %

Institution-Set Standard for Licensure Pass Rates (if appropriate to your program): %

Assessed Programs: 0

Total Programs: 1

Assessment Rate: 0.0%

Question C.2. Is there demand for a new degree, certificate, program, or service that would meet the needs of students or the community? If so, please describe new programs or services you will propose adding. Also note that resource requests may be necessary to support new programs.

Please limit your response to 250 words.

Section C.3. Summary of Assessment Cycle

Section C.3 applies to all programs and services.

Question C.3. Examine the last three years of SLO and PLO assessments for your program. Summarize the changes that have been implemented and the changes that need to be implemented for program improvement. Relate your assessments to the Institutional Learning Outcomes (ILOs).

Please limit your response to 250 words.

The results of our assessments have generally met or exceeded expectations. We have observed that students respond better to a more interactive learning environment. We have thus incorporated interactive problem-solving sessions into Physics 101, 102, and 103. This has resulted in improved test scores and higher success rates. This will ultimately improve the college's transfer rate.

D. Program Evaluation and Needs

Section D applies to all programs and services.

Distance Education

Question D.1. How have changes in service delivery, particularly distance education, required changes in the skills of staff? How are staff being trained, retrained, and developed? What staff development opportunities have been utilized in the past five years? When were faculty teaching courses through distance education trained last?

The physics department does not offer any "distance education" courses. All courses are on-site, traditional courses, requiring student presence and participation. Being an experimental science, physics requires the hands-on participation and active involvement of students. Nonetheless, we have tried to make some educational resources available through the internet. All lecture material, as well as homework assignments and many interactive learning applets are now available on the course websites for Physics 101, 102, and 103. The staff has participated in Moodle training courses offered by the college in order to better use course management software in Physics 110.

Technology

Question D.2. How has technology been integrated into the service and administrative functions of the unit? How successful have these efforts been? How has the unit developed hardware, software, and training support? How has the unit addressed security and obsolescence issues?

All lecture material, as well as homework assignments and many interactive learning applets are now available on the course websites for Physics 101, 102, and 103. Physics 110 makes heavy use of the Moodle course management software for at-home assessment and dissemination of course material. The department also manages a computer lab that is available to all physics students for completing homework assignments, for collaboration on projects, and generally for cooperative learning.

Maintaining the software and hardware up to date has been a challenge. John Gerz, who is our senior lab technician, has provided the time, effort and technical experience to maintain the computer lab. However, acquiring funding to purchase software updates and modern hardware has been difficult.

Currency

Question D.3. What activities have been conducted to assure and enhance the currency of the program, including any services, degrees, or certificates included in the program?

The laboratory manuals for Physics 102 and Physics 103 are currently being revised and expanded. We have updated these manuals to include more advanced experimental procedures. Our laboratory activities have been updated to utilize new equipment and software acquired by the physics department. In all, the laboratory manuals have been extensively revised to ensure that students are exposed to the most current topics in physics in the most rigorous manner possible.

Staffing

Question D.4. Is staffing adequate for your program? Are any vacant positions unnecessary? Are the skills of your current staff members meeting the needs of your area? Is any additional training needed?

Staffing is not adequate. Compared to the 2011-2012 school year, WSCH per FTEF has increased by 25.8% in the physics department. This reflects a growth trend in student enrollment as well as a loss of full-time faculty in the department. Prof. Guglielmino, who retired in June of 2014, left a vacancy that has not yet been filled. Furthermore, Barbara Falkowski, who is our full-time laboratory technician, does not have a permanent full-time position. This leaves her and the department in a precarious situation. Her departure for a more attractive permanent position could leave the department paralyzed.

Question D.5. Describe the number and assignments of hourly employees and student employees that your program requires? Is there a need for additional short-term employees or student employees, within college and state guidelines and restrictions?

Duplication of Services

Question D.6. Is there overlap or duplication of services with other units of the campus? How could this be reduced, if appropriate?

There is no overlap with other units of the campus.

E. Program Plan

Section E applies to all programs and services.

Based on assessments and needs, define your program's plan for the next three years here.

Program Plan Item	1
Program Goal:	Increase enrollment in Physics 101 from 60 to 90 students per semester.
Action item:	Offer a third laboratory section for Physics 101.
Anticipated changes/improvements:	Increased enrollment and sustained growth of the department.
How will improvements be measured?	Enrollment numbers will be the primary metric.
Timeline for completion:	Fall 2017
Link to Mission Statement:	...through transfer preparation,
Link to Vision Statement:	

Link to GCC Comprehensive Plan:

0002Strategic Goal 1. Student Awareness, Access, Persistence and Success

Link to Annual Goals:

Link to Institutional Learning Outcomes:

If this program plan item was included in a previous year's program review, describe current progress on the item:

Program Plan Item 2

Program Goal:

Offer Physics 102 and Physics 103 every semester.

Action item:

Offer Physics 103 in Fall 2016. Offer Physics 102 in Spring 2017.

Anticipated changes/improvements:

Increased enrollment and sustained growth of the department.

How will improvements be measured?

Enrollment numbers will be the primary metric.

Timeline for completion:

Spring 2017

Link to Mission Statement:

...through transfer preparation,

Link to Vision Statement:

Link to GCC Comprehensive Plan:

0002Strategic Goal 1. Student Awareness, Access, Persistence and Success

Link to Annual Goals:

Link to Institutional Learning Outcomes:

If this program plan item was included in a previous year's program review, describe current progress on the item:

Program Plan Item 3

Program Goal:

Increase enrollment in Physics 105 from 90 to 120 students per semester.

Action item:

Offer a fourth laboratory section for Physics 105.

Anticipated changes/improvements:

Increased enrollment and sustained growth of the department.

How will improvements be measured?

Enrollment numbers will be the primary metric.

Timeline for completion:

Fall 2016

Link to Mission Statement:

...through transfer preparation,

Link to Vision Statement:

Link to GCC Comprehensive Plan:

0002Strategic Goal 1. Student Awareness, Access, Persistence and Success

Link to Annual Goals:

Link to Institutional Learning Outcomes:

If this program plan item was included in a previous year's program review, describe current progress on the item:

F. Report on 2014-2015 Funded Resource Requests

Section F applies to all programs and services.

Please list all resource requests (including personnel requests) funded by the Budget Committee or any other funding sources in Academic Year 2014-2015. For each request which was funded and received, please describe the impact of its receipt (how the item specifically impacted your division/department). How will you continue to measure the impact of this item?

G. Program Resource Requests (All Programs)

Section G applies to all programs and services.

RR	Laboratory Equipment Revitalization	Note: Carried over from 2014-2015.	▲
RR	Faculty Computer	Note: Carried over from 2014-2015.	▼

Program Review - Summary Narrative

If your program review was a full review this year, please briefly describe the major changes you made. If your program review was a review/update this year, please briefly describe the review process and whether any significant changes were made.