Search Standards By User

Source: IPR
Cycle: Instructional Program Review 2016-17
User Name: Lead Faculty, Astronomy and Physics
Response Types: All Responses Types

1	Executive Summary
0	Executive Summary

Summarize your program's strengths, opportunities, challenges, and action plans. This information will be presented to the Board of Trustees. [1000 word limit]

Response Detail

No Response Information to Display

Narrative

The astronomy program at Canada College presents the opportunity to introduce students to the physical sciences and scientific thinking in the context of learning about the universe. The courses require students to learn content, practice thinking in terms of the scientific method, as well as bring their reporting to college level. The strength of the program lies in the allure of learning about the great mysteries of the universe, as well as access to a great variety of instructional tools, including telescopes, globes, as well as a wealth of online resources. Students with no prior science background are able to learn new ways of observing and questioning nature, starting from basic observations to abstract theories.

Some of the challenges of the astronomy courses stem from its very purpose, in that a significant portion of students have no prior science background, and many new students also have significant gaps in their learning skills. As such there are fluctuations and discrepancies in student retention and success rates. The program continually self-examines content and instructional methods to better match the background and abilities of students. The program currently still has gaps in its inventory, and its facilities arrangements are lagging what is normally considered appropriate for astronomy. We have just recently acquired new, up to date equipment and are anticipating additions throughout the coming semesters. This new equipment will be implemented into instruction to enhance learning. Some of the equipment (e.g. telescopes during star parties) will also be used to promote the astronomy program to the students, and to the general public.

The District is expected to grant our Astronomy Program new facilities, including a new laboratory space as part of the Building 23N project, as well as a concrete slab on the south side of the mesa of Lot 10, powered, and with sheds for permanent mounting of our larger telescopes.

Suggested Follow Ups

Date	Suggested Follow Up
No Suggested Follow Ups to Display	

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2 Program Context

1 Mission

Identify how your program aligns with the college's mission by stating which categories of courses you offer: Career Technical, Basic Skills, Transfer, and/or Lifelong Learning. If your program has a mission statement, you may include it here.

Response Detail

No Response Information to Display

Narrative

Career Technical Basic Skills Transfer Lifelong Learning
Mission statement:
Not applicable. Astronomy has no separate mission statement from the physics program

Suggested Follow Ups

Date	Suggested Follow Up
No Suggested Follow Ups to Display	

2 Articulation

Are there changes in curriculum or degree requirements at high schools or 4-year institutions that may impact your program? If so, describe the changes and your efforts to accommodate them. If no changes have occurred, please write "no known changes".

Response Detail

No Response Information to Display

Narrative

There are no expected changes for astronomy.

Suggested Follow Ups

Date	Suggested Follow Up
No Suggested Follow Ups to Display	

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3 Community and Labor Needs

Are there changes in community needs, employment needs, technology, licensing, or accreditation that may affect your program?. If so, describe these changes and your efforts to accommodate them. If no changes have occurred, please write "no known changes". CTE programs: identify the dates of your most recent advisory group meeting and describe your advisory group?s recommendations for your program.

Response Detail

No Response Information to Display

Narrative

There are no expected changes for astronomy

Suggested Follow Ups

Date	Suggested Follow Up
No Suggested Follow Ups to Display	

3 Looking Back

4 Curricular Changes

List any significant changes that have occurred over the prior two years in your program's curricular offerings, scheduling, or mode of delivery. Explain the rationale for these changes.

Response Detail

No Response Information to Display

Narrative

There are no expected major changes in course offerings at this time. We may have slight variations in the number of sections offered in AST 100 and 101 depending on enrollment demands. We continue to offer classes both on campus and online. We continue to experiment with the timing of the offered sections to meet student demand. As of 2016 we attempted hybrid offerings of both the lecture (100) and lab (101) sections. In 2017 we will offer two daytime sections of the lecture sections.

Suggested Follow Ups

Date	Suggested Follow Up
No Suggested Follow Ups to Display	

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5.A. Progress Report - IPC Feedback

Provide your responses to all recommendations received in your last program review cycle.

Response Detail
No Response Information to Display

Narrative

In the previous program review it has been suggested that Astronomy become part of the GE Pathway Program. This has been done.

The higher enrollment for the daytime section has now been used to attempt to schedule a second section of daytime astronomy for the fall of 2017.

We now have a regular Astronomy Club with an attendance of about a dozen students each meeting. In addition, our Star Parties (open to the general public) attract about 40 attendees each time.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

5.B. Progress Report - Prior Action Plans

Provide a summary of the progress you have made on the strategic action plans identified in your last program review.

Response Detail
No Response Information to Display

Narrative

The promotion of tutors has been tried, yet again, though no substantial gains have been recorded.

Instructional equipment acquired has been acquired, which made set up of some telescope observations (the ones involving smaller telescopes), as well as astronomy lab exercises considerably quicker and easier. We continue to update our equipment.

At the same time lighting conditions for our observations have gotten worse, and we are in the process of working with facilities on getting our own observing slab at a darker portion of campus.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

6.A. Impact of Resource Allocations

Describe the impact to-date that new resources (equipment, facilities, research) requested in prior years' program reviews have had on your program. If measurable impacts on student success have been observed, be sure to describe these and include any documentation/evidence. If no resources have been recently requested, please write ?not applicable?.

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Response Detail
No Response Information to Display

Narrative
Since the last review cycle Astronomy acquired updated telescope equipment, as well as optics kits and globes. **The telescopes have since been used both for class observation projects, as well as promoting the program through the Astronomy Club. The new telescopes helped with easy set up, even with the ongoing conflict with the Lot 10 lights.** **The globes allowed for hands on equipment for labs involving scale models.** **The optics kits allowed delineation of equipment with Physics, and ready labs involving ray tracing.**

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

6.B. Impact of Staffing Changes

Describe the impact on your program of any changes in staffing levels (for example, the addition, loss or reassignment of faculty/staff). If no changes have occurred, please write "not applicable".

Response Detail
No Response Information to Display

Narrative
We do not anticipate any changes in staffing for Astronomy at this time. We will continue to promote tutoring in Astronomy, though demand has been mellow.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

4	Current State of the Program

7 Enrollment Trends

Use the Productivity data packet to examine your enrollments (headcount, FTES, Load) and pattern of course offerings (Productivity by Courses by Semester). How have your enrollments changed? What changes could be implemented, including changes to course scheduling (times/days/duration/delivery mode/number of sections), marketing, and articulation of pathways that might improve these trends? NOTE: If other sources of data are used, please upload these documents or provide URLs.

Search Standards By User

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Response Types: All Responses Types

Response Detail
No Response Information to Display

Narrative
Enrollment in AST 100 and 101 continues to be steady, in both the on-site and online offerings. We continue to experiment with scheduling. For example, we took suggestion that daytime offerings are more popular and will attempt two daytime sections of AST 100 in the Fall of 2017. **The Honors sections continue to be offered for all sections of AST 100, and are filled initially, though few students in those sections stay with the Honors offering to the end of the semester.**

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

7.A. Connection & Entry - Observation

Observation: Describe trends in program and course enrollments, FTES, LOAD and Fill Rates. Cite quantitative data and identify the specific tables from the data packets. If other sources of data are used, please upload these documents or provide URLs.

Response Detail
No Response Information to Display

Narrative
Astronomy had lower than usual enrollments (260 in 2013, down from 359 the previous year, see table: Census Headcount) during the 2013-14 year . This was partly due to less section offerings in Fall, 2013. Enrollment figures did improve somewhat for the Spring semester when more sections were offered, although some of them were severely underenrolled. Active recruitment of students is ongoing. Online enrollment has generally shown higher fill rates (see table: DE vs Non DE Courses). Also, daytime sections generally have significantly higher enrollment than night sections.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

7.B. Connection & Entry - Evaluation

Evaluation: What changes could be implemented, including changes to course scheduling (times/days/duration/delivery mode/number of sections), marketing, and articulation that may improve these trends in enrollment?
NOTE: If you intend to implement any of these changes, you should create Action Plans in the Planning module of SPOL. Doing so will also allow you to request resources that may be required for successful implementation.

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Response Detail
No Response Information to Display

Narrative
Active advertisement on campus has been implemented as of the summer of 2014, allowing for all sections to reach at least the threshold enrollment by the first day of classes. More advertisement is ongoing, such as diplay slides across campus (Learning Center, Grove, Library), and leaflets about AST 100 and 101 have been handed out on multiple occasions. In addition we continue to actively encourage the recruitment of students through Middle College. We have now organized two star parties, one each for the Summer and Fall of 2014 to also increase the visibility, and alure of the astronomy program. Finally, the new honors sections added to AST 100 may attract additional students from the Honors Program. As of this writing the enrollment figures for Spring, 2015 for AST 100 are a slight improvement over previous semesters.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

8-A. Access & Completion

One of the goals of the College's Student Equity plan is to close the performance gaps for disproportionately impacted students. The Equity Supplement data packet indicates which groups are experiencing disproportionate impact in your program. Which gaps are most important for improving outcomes in your program? How can the college help you address these gaps? What changes could be made?

Response Detail
No Response Information to Display

Narrative
There has been a slight increase in some demographics (e.g. Asian, Filipino over the past five years, although still below college average), and for the first time, the enrollment percentage during the last data cycle (2015/2016) the enrollment of female students has been on par with the college (about 61%), and actually slightly above the average for our division (55%). However, since this was a one time occurrence, this demographic still has to be monitored. **Retention (about 80%) and success (about 65%) rates have been holding steady since the last review cycle. These are comparable to the rates within our division, though slightly below college-wide rates (about 83 and 70% respectively) for the latest reported academic year.**

Suggested Follow Ups	
Date	**Suggested Follow Up**
02/24/2017	We believe that there may continue to exist some discrepancies between our content delivery and our assessment techniques within our department (as also evidenced by the discrepancies in the AST 101 SLO results). We will continue to re-examine both, and attempt to better align them.
02/24/2017	We believe that Astronomy could still use improvement in marketing to all student demographics. Our department would like to ask for further collaboration with, and assistance from the college on this issue.

8.A. Progress & Completion -Observation

Observation: Describe trends in student success and retention disaggregated by: ethnicity, gender, age, enrollment status, day/evening. Cite quantitative data and identify specific tables from the data packets. If other sources of data are used, please upload these documents or provide URLs.

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Response Detail
No Response Information to Display

Narrative
The retention and success rates (see table: annual retention and success) did show a drop for the 2013/14 years. This trend was observed for all student categories (by gender, or ethnicity). This drop may have been due to temporary changes in some course content or methods of instruction (see plan for correcting this below under Evaluation). White students, as in previous years continue to have higher success rates than African American, Hispanic, and "unknown" ethnicity students.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

8-B. Completion - Success Online

The college has a goal of improving success in online courses. Examine the "Course Success and Retention by DE vs Non DE" data table in the "Effectiveness: Success and Retention" data packet. What significant gaps do you see in success between online/hybrid and non-online courses? What changes could be made to reduce these gaps? If your program does not offer online/hybrid courses, please write "not applicable".

Response Detail
No Response Information to Display

Narrative
The retention rate for both DE and on-site offerings are comparable and adequate for the program (as averaged over several semesters). We continue to re-examine instructional methodologies, as well as assessment methods to try to increase both retention and success.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

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8.B. Progress & Completion Online - Observation

Observation: For online courses describe any significant differences in the success and retention of students who are taking online courses compared to face-to-face courses

Response Detail
No Response Information to Display

Narrative
For the 2013/14 year both online and f2f sections (see Retention and Success by DE Ed description) showed a relatively low rates of retention (79, and 77%) and success rates (62%, and 61% respectively) compared to previous terms.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

8.C. Progress & Completion - Evaluation

Evaluation: Based on these trends, what do you feel are significant factors or barriers influencing student success in your courses and program? What changes (e.g. in curriculum, pedagogy, scheduling, modality) could be implemented to improve these trends?
NOTE: If you intend to implement any of these changes, you should create Action Plans in the Planning module of SPOL. Doing so will also allow you to request resources that may be required for successful implementation.

Response Detail
No Response Information to Display

Narrative
The drop in student retention and success rates may have been due to changes in instruction methodology for the 2013/14 years. For example, in the f2f sections there was an attempt at introducing some basic math and calculations. Unfortunately this discouraged a significant portion of the students. This content has now been removed. The drop in retention and success rates for the online sections is not yet explained, but considering that the online offerings are still relatively new on this campus, the instructional methodology will be examined for better online delivery as the course develops.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

Search Standards By User

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Response Types: All Responses Types

9.A. SLO Assessment - Compliance

Are all active courses being systematically assessed over a 3-year cycle? Describe the coordination of SLO assessment across sections and over time.

Response Detail
No Response Information to Display

Narrative
Astronomy proposed changes to the SLOs as of the Spring of 2014 to bring them more in accord with the Physics/Astronomy PLOs as well as the college ILOs. The new SLOs have since been measured and submitted to TracDat. The results have been satisfactory, though there have been some discrepancies between lab scores and exams in AST 101.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

9.B. SLO Assessment - Impact

Summarize the dialogue that has resulted from these course SLO assessments. What specific strategies have you implemented, or plan to implement, based upon the results of your SLO assessment? Cite specific examples.

Response Detail
No Response Information to Display

Narrative
The new SLO results have been submitted to TracDat. In both AST 100 and 101 the results have been satisfactory, though there has been a noticeable discrepancy between lab scores and exam scores in the 101 class. This is likely due to the inclusion of lab report format in determining lab scores (SLO3) instead of focus on content (SLOs 1 and 2). Perhaps more delineation of content from format in assessment will generate more reliable results.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

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Response Types: All Responses Types

10 PLO Assessment

Describe your program's Program Learning Outcomes assessment plan. Summarize the major findings of your PLO assessments. What are some improvements that have been, or can be, implemented as a result of PLO assessment?

Response Detail
No Response Information to Display

Narrative
Astronomy does not have separate PLOs from Physics. Not Applicable.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

10.A. PLO Assessment - Plan

Describe your program's Program Learning Outcomes assessment plan. Please specify whether you are using direct or indirect measurements of assessment.

Response Detail
No Response Information to Display

Narrative
Not applicable. The astronomy program has no separate PLOs from the physics program.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	

Search Standards By User

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Response Types: All Responses Types

10.B. PLO Assessment - Impact

Describe your program's Program Learning Outcomes assessment plan and summarize the major findings of your assessments. What are some improvements that have been, or can be, implemented as a result of PLO assessment?

Response Detail

No Response Information to Display

Narrative

n/a

Suggested Follow Ups

Date	Suggested Follow Up
No Suggested Follow Ups to Display	

5 Looking Ahead

11 Program Planning

Construct Planning Objectives (through the Associated Planning Objectives field below) that describe your plans for program improvement over the upcoming two-years. As you write your objectives, be sure to explain how they address any opportunities for improvement that you identified throughout this Program Review. Add Action Plans and Resource Requests for any research, training, equipment or facilities improvements that will be needed in order to achieve your objectives.

Response Detail

No Response Information to Display

Narrative

See program planning objectives.

Suggested Follow Ups

Date	Suggested Follow Up
No Suggested Follow Ups to Display	

Search Standards By User

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12 Personnel Projections

Describe your recent history requesting new faculty/staff positions. List the current and near-future new or replacement faculty/staff positions that you anticipate requesting. Identify the term or year in which you anticipate submitting the staffing request. If none are anticipated, please write "not applicable". (List only; no justification needed here.)

Response Detail
No Response Information to Display

Narrative
There is no Narrative Entered.

Suggested Follow Ups	
Date	**Suggested Follow Up**
No Suggested Follow Ups to Display	