

# Start of the Academic Year 2012-2013

## New Cycle Program Learning Outcomes Plan Template

Please use this form as you begin your planning cycle for the up-coming Academic Year. You will want to connect this work to the plan from the prior year and the long-term plan for your program. Please only fill out the sections relevant to your program. You do not have to fill out all sections of this form.

Please return by **October 1<sup>st</sup>** to Jessica King: [jkings84@valenciacollege.edu](mailto:jkings84@valenciacollege.edu)

Please send questions to Laura Blasi, Director, Institutional Assessment [lblasi@valenciacollege.edu](mailto:lblasi@valenciacollege.edu)

**How this relates to your Program Improvement Plan:** This “new cycle template” is where you and your colleagues describe the next phase of your plan to be accomplished in the 2012-2013 Academic Year. Use this template to describe what you plan to do to implement the plan for improvements (identified in spring of 2012) over this upcoming year and write out the next program outcome you and your colleagues will assess and your plan for accomplishing this over the next year.

*Academic Program / Discipline Area (for General Education) or Co-Curricular Program Area:*

**1. What is your program name?**

**Science General Education**

**2. Does this academic year’s improvement plan (2012-2013) build on your work from last year (2011-2012)? If so, how... (1-2 sentences)**

**The philosophy of the plan is the same. However, the assessment that will be used for this academic year will be structured and designed to gather the information needed to clearly assess the targeted project outcome of scientific reasoning using the levels of Bloom’s Taxonomy of cognitive skills.**

Planning Team Leader(s) <sup>1</sup>	Campus	E-mail Address	Phone Extension	Mail Code
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<sup>1</sup> Planning Team Leaders assume the responsibility for coordinating activities associated with the expectations for the design, approval and implementation of Assessment Plans.

<sup>2</sup> Planning Team membership, whenever possible, should reflect the ***Principles for selection of members for assessment plan work teams***. For faculty teams the principles include: College-wide representation where possible; Full-time faculty from the respective program / discipline (tenured, tenure track, and non-tenure earning 4 / 8 / 10 month faculty); Adjunct faculty when an adequate number of full-time faculty do not teach in the program / discipline; Faculty from both disciplines or programs when an outcome is assessed in two programs or a program other than the primary discipline. For plans developed in Student Affairs planning teams should include the following: College-wide representation where possible; Staff from the targeted program area; Part-time Student Affairs professionals when an adequate number of full-time staff do not work in the targeted program area; Faculty / staff from other program / discipline areas working on the same or similar outcomes; Student representation when possible.

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# Learning Outcomes and Performance Indicators

<b>Academic Program / Discipline Area (for General Education) or Co-Curricular Program Area:</b> <b>Science</b>	
<b>Major finding from last year and related change, if any:</b>  <b>The faculty attending the Spring 2012 meeting determined that a new assessment tool would need to be developed to improve the alignment of the performance indicators with our learning outcome. A task force was formed to develop an assessment to better match the targeted outcome for Spring 2013.</b>  <b>The proposed assessment has been distributed to science faculty college-wide and input is currently being gathered. The majority of faculty have voted to administer the assessment to all science general education students Spring Term 2013 through the office of Institutional Assessment as was done in the Spring Term 2012. The data will be discussed at Assessment Day 2013.</b>	
<b>Services needed as a result of the finding (Student Learning Support, Faculty Development, etc.):</b> <b>Faculty Development Workshops – Development and Design of Higher Order Thinking Questions</b> <b>Web-based tutorials, including posted guidelines for both faculty (for using story/question sets) and students (developed activities)</b>	
<b>Targeted Program Learning Outcome(s) (PLOs) for this year:</b> <b>Scientific Reasoning</b>	<b>Targeted Course(s), Co-Curricular Program or Student Activity associated with the Academic Program:</b>  <b>All science general education courses</b>
<b>Is this a different outcome from the one reported last year? (yes /no)</b> <b>Yes</b>	
<b>Does this assessment for this year apply to more than one PLO? (yes /no)</b> <b>No</b>	
<b>National Standard(s): N/A</b>  <small>(This could be specific to your field or focused on overall undergraduate competencies from a national organization. Contact Laura Blasi for examples / ideas. lblasi@valenciacollege.edu)</small>	<b>Targeted Outcome(s) within the Course(s), Co-Curricular Program or Student Activity identified above:</b> <b>Students will apply scientific reasoning when evaluating science news stories.</b>
<b>Performance Indicators for the Program Learning Outcome(s) selected:</b> <b>Students will apply scientific reasoning when evaluating science news stories, case studies, or scenario questions delivered during the final exam or during finals period.</b>	<b>Performance Indicators for Outcome(s) within the Course(s), Co-Curricular Program or Student Activity selected:</b> <b>Students will apply scientific reasoning when evaluating science news stories, case studies, or scenario questions used in class throughout the semester as a formative assessment.</b>

**Prediction** (Given what you know about your students, how you expect them to perform? What do you expect to see?  
You will be able to compare your beliefs to the results that you receive at the end of this assessment cycle)

**The expectation is that the vast majority of students will have developed scientific reasoning skills during the course of their science general education course and be able to apply these skills when evaluating a scientific news article. If this is what we see from these results, it is projected that the assessment tool for 2014 will focus on scientific literacy (identifying facts, bias, and analysis of data).**

**Common Assessment** – What assessment method (written assignment, speech, test, etc.) will you use to assess student ability related to the program / course outcome(s) selected:

**Multiple choice test pertinent to current science news stories**

**Description of the Proposed Common Assessment** – Common assessments should be designed to ensure a balance between (1) the need for a consistency within the program in order to ensure comparable student artifacts and (2) the need for reasonable flexibility in order to encourage faculty judgment in the design and delivery of learning activities:

- **The assessment contains a current news article and 4 multiple choice questions aimed at different levels of Bloom’s Taxonomy of cognitive skills.**
- **Questions focus on these four aspects of scientific reasoning – Observation; Hypothesis; Interpretation of Data; Conclusion.**
- **When students have completed the electronic assessment and faculty have received the results, these results will be used by instructors to determine if the students have met the outcome and also the level they achieved within the Bloom’s Taxonomy hierarchy.**
- **If individual faculty members wish to compare assessment results for individual students with their class grades, they may elect to have their students identified. This will provide a more robust statistical data set for evaluating assessment question reliability and validity.**
- **Whether students are identified or not, individual faculty would receive results and be able to make modifications to future instruction plans.**

**What is the approximate number of students that you expect to assess? (Please indicate “Do not know at this time” if that is the case)**

**Approximately 1200 students**

## Implementation Process

### Planning for Communication and the Collection of Student Artifacts / Data

1. **When will faculty seek or receive feedback on the design of the assessment, the rubrics, etc.?**

**September/October 2012**

2. How will student artifacts or data associated with student performance be collected? <b>Multiple choice test by electronic delivery</b>
3. If student artifacts are to be collected based on a sample of students, what characteristics should the sample include? <b>N/A</b>
4. What information needs to be communicated to students concerning the assessment process? <b>An invitation to students to participate in an Assessment of Instruction for Science Education will be sent electronically near the end of spring term. The invitation will contain a link that will direct students to the assessment. Electronic reminders will be sent to the students during the period of time that the Assessment is accessible. In addition, many science faculty have expressed their support in their desire to encourage their students to participate in the assessment.</b>
5. How will information about faculty / staff participation in the assessment project be communicated? <b>All information will be sent to the science faculty electronically. Additional communication is expected to occur through college-wide discipline and departmental meetings as well as through the Science General Outcomes Blackboard Webpage.</b>
6. Who will be responsible for coordinating the collection of student artifacts / data? <b>Elizabeth Ingram and Leesa Sward, science faculty, with the help of Laura Blasi and Jessica King of the Office of Institutional Assessment</b>
7. At what point in the academic year / semester will the student artifacts/ data be collected? <b>Spring 2013</b>

**Evaluation of Student Artifacts and Analysis of Results: Understanding and Acting on the Impact of the Program (Program Level Assessment)**

8. When will student artifacts be assessed / evaluated? <b>Assessment Day 2013</b>
9. What is the expectation (if any) for student reflection / self-assessment (etc.) as part of this assessment? <b>None at this time, other than by individual faculty who may choose to embed questions relative to this assessment in their courses.</b>
10. Which faculty or staff from the program/discipline will evaluate student artifacts? <b>Science General Education committee</b>
11. What training / preparation / information will faculty or staff need in order adequately assess / evaluate the student artifacts collected? <b>The assessment is to be automatically scored by survey software provided by the Office of Institutional Assessment.</b>

12. When will the results / data associated with the assessment plan be analyzed?

Between the end of Spring term and Assessment Day

13. What training / preparation / information will faculty or staff need in order to analyze the results data associated with this assessment plan? \*

Statistical evaluation in concert with the Valencia Office of Institutional Assessment; Results presented to science faculty on Assessment Day

14. Does this assessment relate to your assessment from last year (if so how...)? How is this assessment connected to your improvement plan?

The assessment is in the same format, but the content is structured and designed to gather the information needed to assess the project outcome. The results of this assessment will direct the next steps, keeping in line with evaluating levels of Bloom's Taxonomy of cognitive skills.

15. What additional sources of data might allow faculty / staff to better understand and act on the results of this assessment plan?

Webpage information to include

1. repository of news story/questions sets;
2. web-based tutorial on creating and using question sets;
3. developed classroom and online student activities using news story/questions sets available for faculty use throughout term.

Discussion board/social network for

1. presenting questions for review;
2. discussion of strategies for use of question sets for formative assessment;
3. problems encountered in using question sets.

Support for adjuncts and anyone needing help in implementing any part of this strategy.

Point person(s) for face-to-face support and advising.

16. In order to ensure curricular and programmatic alignment, who else should be included in this conversation (e.g., General Education faculty)?

- General Science Faculty
- Science Department Deans
- Office of Institutional Assessment

## Approval / Implementation Process

Activities Associated with the Approval / Implementation of Assessment Plans	Person Responsible	Target Completion Date	Actual Completion Date
Task Force approved assessment tool and data collection plan circulated for input to Science General Education Committee	Elizabeth Ingram and Leesa Sward	September 2012	September 2012
Task Force approved assessment tool and data collection plan circulated for input to all Valencia Science faculty	Elizabeth Ingram and Leesa Sward	Input received until September 30, 2012	
Data collection method determined	Elizabeth Ingram and Leesa Sward	October 1, 2012	
<p><b>For thought (you do not need to answer...)</b></p> <ul style="list-style-type: none"> <li>• <i>Will current voter eligibility lists for the curriculum be used for any voting?</i></li> <li>• <i>Will you have a group enroll in a related assessment methods workshop for credit or schedule your own sometime during the term? (See: <a href="http://valenciacollege.edu/faculty/development/coursesearch.cfm">http://valenciacollege.edu/faculty/development/coursesearch.cfm</a>)</i></li> <li>• <i>For A.S. programs – how does the 10/30/12 Viability meeting fit with your work?</i></li> </ul>			

## Dean / Director Support

The Dean(s) / Directors (for Librarians, Counselors) responsible for supporting and promoting the work necessary for the implementation of the Assessment Plan need to indicate their support for the plan.

Dean / Director East / Winter Park Campus	Signature
Dean / Director Osceola / Lake Nona Campus	Signature
Dean / Director West Campus	Signature



## Sign In Sheet for Related Meetings

Name	Dept.	Date	Event