**IMPERIAL VALLEY COLLEGE**

**Student Learning Outcomes (SLO) Assessment Cycle Form**

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| Date: | 5/24/2011 |  |  |
| Department Name: | Mathematics |  |  |

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| Course Number/Title or Program Title: | Math 230 Linear Algebra |

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| Contact Person/Others Involved in Process: | Lead: Eric Lehtonen Others: Alex Voldman |

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| If course is part of a major(s), and/or certificate program(s), please list all below: | |  |  |  |  | |
| Major(s): | Certificate(s): | | | | |  | |  |  |  |  |
| Mathematics |  | | | | |  | |  |  |  |  |
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| Does course satisfy a community college GE requirement(s)? | x | Yes |  | No |  | N/A |

If yes, check which requirement(s) below:

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|  | | American Institutions |  | Language and Rationality – English Composition | | | |
|  | | Health Education |  | Language and Rationality – Communication and Analytical Thinking | | | |
|  | | Physical Education / Activity |  | Natural Science | | | |
| x | | Math Competency |  | Humanities | | | |
|  | | Reading Competency |  | Social and Behavioral Sciences | | | |
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|  | **Student Learning Outcome** | | | | **Assessment Tool**  (e.g., exam, rubric, portfolio) | **Institutional Outcome\***  (e.g., ISLO1, ISLO2) | | |
|  | **Example:** Identify, create, critique, and refute oral and written arguments. | | | | Debate + Debate rubric | ISLO1, ISLO2 | | |
|  | Outcome 1. Perform matrix operations, and compute determinants, eigenvalues,/vectors, and inverses. | | | | Exam | SLO1 SL02 | | |
|  | Outcome 2: | | | |  |  | | |
|  | Outcome 3: | | | |  |  | | |

**Each SLO should describe the knowledge, skills, and/or abilities students will have after successful**

**completion of course or as a result of participation in activity/program.** A minimum of one SLO is required

per course/program. You may identify more than one SLO, but please note that you will need to collect and

evaluate data for each SLO that you list above. Attach separate pages if needed. *For assistance contact: Toni Pfister* [*toni.pfister@imperial.edu*](mailto:toni.pfister@imperial.edu) *or X6546*

**\*Institutional Student Learning Outcomes: ISLO1** = communication skills; I**SLO2** = critical thinking skills;

**ISLO3** = personal responsibility; I**SLO4** = information literacy; I**SLO5** = global awareness

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| **1. Course Number & Date of Assessment Cycle Completion** | **Course:** Math 230 **Date: 5/24/2011** |
| **2. People involved in summarizing and evaluating data** | Eric Lehtonen |
| **3. Data Results**  Briefly summarize the results of the data you collected. | **Outcome 1:**  Perform matrix operations, and compute determinants, eigenvalues,/vectors, and inverses.  A multipart question covering various aspects of matrix operations was included in the final exam. There were 10 subquestions each highlighting a matrix operation.  22 Students took the test. Their overall percentage correct on matrix operations was 86.81%. The results were placed into a matrix to identify whether certain operation gave more trouble than others, but the individual questions ranged between 80% and 90%.  In, summary, the students of the class had a solid command of matrix operations. |
| **4. Course / Program Improvement**  Please describe what change(s) you plan to implement based on the above results. | The most rational change would to be to have a slight decrease in emphasis in matrix operations. These are covered to some extent in earlier courses. The gained time could be devote to the more difficult conceptual components of the course.  **\*\*Will this include a change to the curriculum (i.e. course outline)?** |
| **5. Next Year** Was the process effective? Will you change the outcome/ assessment for next year? (e.g., alter the SLO, assessment, faculty discussion process, strategy for providing SLO to student)? If so, how? | The process was effective. No changes will be made. |
| **6. After-Thoughts** Feel free to celebrate, vent, or otherwise discuss the process. | It was a heck of a lot of fun. |

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**The ASSESSMENT CYCLE: Closing the Assessment Loop**

You may elaborate as much as you need to in order to complete this form. Instructions are on the following page.

1. Please list the course number. In case page 1 is separated from page 2, this will help with

organization. Please include the date that assessment cycle was fully completed.

1. To encourage collaboration and the sharing of ideas, each form must be completed by at least

two people. If you are the only one teaching the course, you are encourage to share your data

results and improvement methods with at least one other staff or faculty member. Please list

the names of all faculty, staff, and students who were involved in summarizing or evaluating

the data. These names may be the same or different than those on the original SLO ID form.

1. Your original data results, or your raw data, should be kept within your department for three

years. At this time you do not need to submit the raw data, but please keep it for future quality

control measures. Please summarize the data that you collected. You should include how well

students scored on the assessment. You might also include: how many instructors submitted

data(full-time, part-time); the type of data that was submitted (rubric scores, practical test

results, etc); and, if appropriate, if a cross-section of classes (day, evening, online) were

assessed. If a rubric was used, you might discuss the number of students who scored 1, 2, 3,

or 4, for example, on the rubric.

1. This is an opportunity to have a rich discussion with others involved in education. Please

describe any changes that can be made based on the data. Changes might be made to class

activities, assignment instructions, topics taught in class, or the course outline of record, etc.

You might include when the changes will be implemented and, if a comparison is to be made,

when the next round of data will be collected (e.g. Fall 2009).

Then, answer “Yes” or “No” to the curriculum question – no explanations required but please

answer the question.

1. This may provide an opportunity to discuss what went well and what could be improved.

If the SLO needs to be tweaked or more outcomes/assessments need to be included you might

want to do that now while the information is fresh. This may allow faculty to modify SLO(s)

for next year and be prepared to include them on next year’s syllabus.

1. Please share your thoughts, feelings, and ideas on IVC’s SLO process thus far.

When completed, please email this form to your division secretary or chair (whoever is managing it locally) **AND** send a hard paper copy to the SLO coordinator. Thanks.