

# CMU Assessment Plan Template

Program Graduate Certificate – Software Engineering Administration  
Assessment Coordinator Dr. Larry Smiley  
Department(s) or Interdisciplinary Council Responsible for the Program ProfEd  
Five-Year Implementation Dates (2004-2005 to 2008-2009)

**1. Student Learning Outcomes for the program.** List the Student Learning Outcomes in each of the domains that apply to the program.

*The graduate certificate program is designed for regularly admitted graduate students who desire advanced training in the field of administration.*

**With a Certificate in Software Engineering Administration, learners will be able to:**

- 1. Examine major issues in software engineering and how software engineering addresses those issues.**
- 2. Apply the concepts, analytical skills, and methods of software engineering management in complex software systems.**
- 3. Analyze decisions in software project management.**
- 4. Analyze techniques and tools which manage and control the software development process.**
- 5. Analyze current major software developments.**

**2. Curriculum Alignment of Student Learning Outcomes.** Where is the information introduced, emphasized, and/or reinforced in the courses required in the program? Use the format below to list the program Outcomes and the Required Courses. Fill in each cell with either an 'I' where the outcome is *introduced*, an 'E' where the outcome is *emphasized*, and/or an 'R' where the information is *reinforced*.

Program Student Learning Outcomes	CERTIFICATE COURSES					
	CPS 510	CPS 611	CPS 612	CPS 613	CPS 614	CPS 615
1	I, E	E		E	I	R
2	I, E	E	R	R	E	E
3			E	E	R	R
4	I	E	I	I	E	E
5	I		I	E	R	R

**I = Introduced E = Emphasized R = Reinforced**

**3. Evidence/Artifacts used to assess Student Learning Outcomes over the 5 year period of this Plan.** What instruments will be used in each of the five years? When and where will they be administered in each of the five years? Which Student Learning Outcomes will be assessed during each of the 5 years? How will results be reported (e.g. percentages, ranks, state or national comparisons) for each of the 5 years?

Outcomes to be Assessed each Year	Instruments to be used each Year	Expected Measures from Instruments	Academic Year
<b>Direct Measures:</b>			
Outcome 1	Course-level assessments in <b>CPS 510</b> using problem-based projects, graded by rubric or embedded test questions	Percent of possible points on rubric	2004 – 2005, 2006 – 2007
Outcome 2	Course-level assessments in <b>CPS 611</b> and <b>CPS 612</b> using problem-based projects, graded by rubric or embedded test questions		2005 – 2006, 2007 – 2008
Outcome 3	Course-level assessments in <b>CPS 612</b> using problem-based projects, graded by rubric or embedded test questions		2005 – 2006, 2007 – 2008
Outcome 4	Course-level assessments in <b>CPS 613</b> and <b>CPA 614</b> using problem-based projects, graded by rubric or embedded test questions		2004 – 2005, 2006 – 2007
Outcome 5	Course-level assessments in <b>CPS 615</b> using problem-based projects, graded by rubric or embedded test questions		2005 – 2006, 2007 – 2008
<b>Supporting Measures:</b>			
Outcomes 1, 2, 3, 4, 5	Alumni Survey – instrument attached	Detailed data analysis	2004 – 2005, 2006 – 2007, 2008 – 2009
Outcomes 1, 2, 3, 4, 5	Current Student Survey – instrument being developed	Detailed data analysis	2005 – 2006, 2007 – 2008, 2009 – 2010

**4. Dissemination of Information over the 5 year period of this Plan.** When, where, and how will results be disseminated to stakeholders in each of the 5 years?

Expected Measures from the Instruments	Affected Stakeholders	Dates and locations for dissemination of results
Alumni Survey – detailed data analysis	<ul style="list-style-type: none"> <li>• Faculty</li> <li>• Students</li> <li>• MSA Council</li> <li>• Dean of ProfEd</li> <li>• Academic Senate</li> <li>• Board of Visitors</li> </ul>	<ul style="list-style-type: none"> <li>• Faculty Development workshops</li> <li>• Aggregate data will be placed on ProfEd website,</li> <li>• Aggregate data will be published in ProfEd newsletters to faculty and alumni</li> </ul>
Current Student Survey – detailed data analysis		
Course-level, problem-based assessment, graded using rubric or embedded test questions		

Date sent to the Assessment Council \_\_\_\_\_

Date reviewed by the Assessment Council \_\_\_\_\_

Approval Date \_\_\_\_\_