

ASSESSMENT PLAN: M.S. in Computer Networks

Updated Date: Winter 2015 by Matt Johnson

PROGRAM MISSION

[CSUEB Missions, Commitments, and ILOs, 2012](#)

CSUEB Computer Networks Program Mission Statement

The mission of the Computer Science Department at California State University East Bay is to provide instruction and to model practices that encourage all students to become intelligent creators and users of computer software and applications, to think analytically and independently, and to stay current with technology by becoming life-long learners.

The mission of the University is to provide an academically rich, multicultural learning experience that prepares all its students to realize their goals, pursue meaningful lifework, and to be socially responsible contributors to their communities, both locally and globally.

The department supports these goals by providing essential knowledge in computer science to both majors and non-majors. It does this by providing (1) industry-specific skills taught by faculty who are current with emerging technology, (2) quantitative and analytical reasoning skills taught in all classes, and (2) rich offerings in a wide variety of areas in computer science. The department fosters academic growth for both its faculty and its students to maintain as high of a level of learning experience as is possible.

PROGRAM STUDENT LEARNING OUTCOMES (SLOs)

Students graduating with a M.S. in Computer Networks will be able to:

SLO 1 ILO 1, 6	Exhibit mastery of advanced computer science theory as applied to the field of computer networks
SLO 2 ILO 1, 5, 6	Employ current techniques, skills, tools, and coding practices necessary for application and system development
SLO 3 ILO 1, 6	Apply critical thinking and problem solving skills by analyzing problems, designing solutions, and evaluating results
SLO 4 ILO 1, 2, 3, 4, 6	Demonstrate communication skills in both written and oral form, and work in a team environment

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SLO 5	Independently acquire new computer related skills through analysis of current computer science literature and industrial practices
ILO 1, 5, 6	

Year 1: 2013-2014

1. Which SLO(s) to assess	SLO 1
2. Assessment indicators	Multiple choice post-assessment exams, independent of coursework
3. Sample (courses/# of students)	<ul style="list-style-type: none"> • CS 6260 Computation and Complexity • CS 6330 Secure Software Development • CS 6520 Cryptography and Data Security • CS 6526 Security in Wireless and Mobile Computing • CS 6575 Parallel Programming All graduate courses have a course capacity of 25.
4. Time (which quarter(s))	Post-assessment exams will be administered during each academic quarter
5. Responsible person(s)	Networks Graduate Coordinator (currently Dr. Leann Christianson)
6. Ways of reporting (how, to who)	An assessment report will be generated by the Networks Graduate Coordinator, and then delivered to the Networks Graduate Program Committee during the spring quarter. Each course aligned with this SLO will be assigned a numeric score between 0 and 10, representing the average student score on the course's post-assessment examinations during the previous academic year.
7. Ways of closing the loop	The Networks Graduate Program Committee will meet in spring quarter to analyze and discuss the assessment report for this PLO. If the score for a given course is below the 7 threshold, the committee will recommend what actions needs be taken. Such actions include (but are not limited to): modification of the assessment examination if the questions seem inappropriate; revision of teaching practices to support student achievement; and refinement of the course learning outcomes that are aligned with the given programmatic SLO. The Committee will then send an action report to the Department Chair for approval.

Year 2: 2014-2015

1. Which SLO(s) to assess	SLO 2
2. Assessment indicators	Multiple choice post-assessment exams, independent of coursework
3. Sample (courses/# of students)	<ul style="list-style-type: none"> • CS 6110 Theory and Design of Compilers • CS 6520 Cryptography and Data Security • CS 6522 Advanced WWW Software Development • CS 6660 Database Systems • CS 6865 Topics in Graphical User Interface Programming All graduate courses have a course capacity of 25.
4. Time (which quarter(s))	Post-assessment exams will be administered during each academic quarter
5. Responsible person(s)	Networks Graduate Coordinator (currently Dr. Leann

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	Christianson)
6. <i>Ways of reporting (how, to who)</i>	An assessment report will be generated by the Networks Graduate Coordinator, and then delivered to the Networks Graduate Program Committee during the spring quarter. Each course aligned with this SLO will be assigned a numeric score between 0 and 10, representing the average student score on the course's post-assessment examinations during the previous academic year.
7. <i>Ways of closing the loop</i>	The Networks Graduate Program Committee will meet in spring quarter to analyze and discuss the assessment report for this PLO. If the score for a given course is below the 7 threshold, the committee will recommend what actions needs be taken. Such actions include (but are not limited to): modification of the assessment examination if the questions seem inappropriate; revision of teaching practices to support student achievement; and refinement of the course learning outcomes that are aligned with the given programmatic SLO. The Committee will then send an action report to the Department Chair for approval.

Year 3: 2015-2016

1. <i>Which SLO(s) to assess</i>	SLO 3
2. <i>Assessment indicators</i>	Multiple choice post-assessment exams, independent of coursework
3. <i>Sample (courses/# of students)</i>	<ul style="list-style-type: none"> • CS 6310 Advanced Software Engineering • CS 6320 Software Engineering and Web-Based Systems • CS 6522 Advanced WWW Software Development • CS 6865 Topics in Graphical User Interface Programming • CS 6870 Computer Simulation All graduate courses have a course capacity of 25.
4. <i>Time (which quarter(s))</i>	Post-assessment exams will be administered during each academic quarter
5. <i>Responsible person(s)</i>	Networks Graduate Coordinator (currently Dr. Leann Christianson)
6. <i>Ways of reporting (how, to who)</i>	An assessment report will be generated by the Networks Graduate Coordinator, and then delivered to the Networks Graduate Program Committee during the spring quarter. Each course aligned with this SLO will be assigned a numeric score between 0 and 10, representing the average student score on the course's post-assessment examinations during the previous academic year.
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Year 4: 2016-2017

1. Which SLO(s) to assess	SLO 4
2. Assessment indicators	Multiple choice post-assessment exams, independent of coursework
3. Sample (courses/# of students)	<ul style="list-style-type: none"> • CS 6591 Communication Networks Analysis and Design • CS 6592 Network Management • CS 6594 Broadband and Multimedia Networks • CS 6596 Wireless and Mobile Network Architecture • CS 6715 Data Compression <p>All graduate courses have a course capacity of 25.</p>
4. Time (which quarter(s))	Post-assessment exams will be administered during each academic quarter
5. Responsible person(s)	Networks Graduate Coordinator (currently Dr. Leann Christianson)
6. Ways of reporting (how, to who)	An assessment report will be generated by the Networks Graduate Coordinator, and then delivered to the Networks Graduate Program Committee during the spring quarter. Each course aligned with this SLO will be assigned a numeric score between 0 and 10, representing the average student score on the course's post-assessment examinations during the previous academic year.
7. Ways of closing the loop	The Networks Graduate Program Committee will meet in spring quarter to analyze and discuss the assessment report for this PLO. If the score for a given course is below the 7 threshold, the committee will recommend what actions needs be taken. Such actions include (but are not limited to): modification of the assessment examination if the questions seem inappropriate; revision of teaching practices to support student achievement; and refinement of the course learning outcomes that are aligned with the given programmatic SLO. The Committee will then send an action report to the Department Chair for approval.

Year 5: 2017-2018

1. Which SLO(s) to assess	SLO 5
2. Assessment indicators	Multiple choice post-assessment exams, independent of coursework
3. Sample (courses/# of students)	<ul style="list-style-type: none"> • CS 6525 Network Security • CS 6526 Security in Wireless and Mobile Computing • CS 6560 Operating Systems Design • CS 6594 Broadband and Multimedia Networks • CS 6899 Project <p>All graduate courses have a course capacity of 25.</p>
4. Time (which quarter(s))	Post-assessment exams will be administered during each academic quarter
5. Responsible person(s)	Networks Graduate Coordinator (currently Dr. Leann Christianson)
6. Ways of reporting (how, to who)	An assessment report will be generated by the Networks Graduate Coordinator, and then delivered to the Networks Graduate Program Committee during the spring quarter. Each course aligned with this SLO will be assigned a numeric score between 0 and 10, representing the average student score on the course's post-assessment examinations during the previous

	academic year.
7. <i>Ways of closing the loop</i>	The Networks Graduate Program Committee will meet in spring quarter to analyze and discuss the assessment report for this PLO. If the score for a given course is below the 7 threshold, the committee will recommend what actions needs be taken. Such actions include (but are not limited to): modification of the assessment examination if the questions seem inappropriate; revision of teaching practices to support student achievement; and refinement of the course learning outcomes that are aligned with the given programmatic SLO. The Committee will then send an action report to the Department Chair for approval.