## ASSESSMENT REPORT TEMPLATE  
\*\*PHD in Computer Science and Software Engineering\*\*  
  
\*\*Student Learning Outcomes\*\*  
  
\*\*Specificity of Outcomes\*\*   
  
Students graduating from the PHD in Computer Science and Software Engineering (CSSE) program at Auburn University should be able to:  
  
\* \*\*SLO 1: Apply appropriate theoretical, algorithmic, and systems concepts to solve complex computing problems.\*\*  
\* \*\*SLO 2: Design, implement, and evaluate software/hardware systems or components that meet specified requirements.\*\*  
\* \*\*SLO 3: Analyze and interpret research literature to identify research problems and propose innovative solutions.\*\*  
\* \*\*SLO 4: Effectively communicate research findings in both oral and written formats to diverse audiences.\*\*  
  
\*\*Comprehensive Outcomes\*\*  
  
The list of student learning outcomes is comprehensive and accurately reflects the current scope of the program. These outcomes were developed through a collaborative process involving faculty, students, and industry partners, and are aligned with disciplinary standards and best practices in computer science and software engineering.  
  
\*\*Communicating Student Learning Outcomes\*\*  
  
The list of student learning outcomes is shared with program stakeholders in the following ways:  
\* The outcomes are posted on the departmental website and included in the program handbook.  
\* The outcomes are discussed with new students during orientation and with all students regularly through advising and town hall meetings.  
\* The outcomes are shared and discussed with program faculty at the beginning of each academic year and revisited periodically throughout the year.  
  
\*\*Curriculum Map\*\*  
  
A curriculum map should include the student learning outcomes and required courses/experiences within a visual matrix. Briefly, think about which courses in your   
curriculum touch on the outcomes you listed. Then think about how deeply they are developed in each of those courses.   
  
• A score of mature will be assigned to maps that simply indicate that there is alignment between the student learning outcomes and required courses/experiences   
and each student learning outcome is aligned (read: developed ) in at leas t one required course or experience. Also, indicate if the relevant course is required   
or an elective in the curriculum.   
  
• A score of exemplary will be assigned to curriculum maps that convey the extent to which each outcome is developed in particu lar course s. Even though this   
example uses 1, 2, 3 to indicate development and A to indicate the intended placement of programmatic assessment(s) , a program could use any symbol (i.e.   
numbers, letters, descriptions).   
  
Please refer to the table below for the Curriculum Map:  
  
| Courses | SLO1 | SLO2 | SLO3 | SLO4 |  
|---|---|---|---|---|  
| 6000 Web Application Development | 0,00 | 1,00 | 0,00 | 1,00 |   
| 6120 Database Systems I (Fall/Spring) | 1,00 | 1,00 | 0,33 | 0,66 |  
| 6130 Data Mining | 1,00 | 0,33 | 0,66 | 1,00 |  
| 6210 Compiler Construction | 0,66 | 1,00 | 0,33 | 0,66 |  
| 6320 Design and Analysis of Computer Networks | 0,66 | 0,66 | 1,00 | 0,00 |  
| 6340 Network Quality Assurance and Simulation | 0,33 | 0,66 | 1,00 | 0,00 |  
| 6350 Digital Forensics | 0,33 | 0,00 | 0,00 | 0,00 |  
| 6360 Wireless and Mobile Networks | 1,00 | 0,66 | 1,00 | 0,66 |   
| 6370 Computer and Network Security | 0,33 | 0,00 | 1,00 | 0,00 |  
| 6400 Foundation of Computer Graphics | 0,00 | 0,66 | 1,00 | 0,00 |  
| 6520 Network and Operating Sys Admin | 0,00 | 0,00 | 1,00 | 0,00 |   
| 6530 Cloud Computing | 0,00 | 1,00 | 0,33 | 0,00 |  
| 6600 Artificial Intelligence | 0,66 | 0,00 | 1,00 | 0,00 |   
| 6620 User Interface Design and Evaluation | 0,00 | 0,66 | 1,00 | 0,66 |  
| 6630 Machine Learning | 0,66 | 0,66 | 0,66 | 0,66 |  
| 6660 Intro to Evolutionary Comp | 0,66 | 0,66 | 1,00 | 0,66 |   
| 6700 Software Process | 0,00 | 1,00 | 0,00 | 0,00 |  
| 6710 Software Quality Assurance | 0,66 | 1,00 | 0,66 | 1,00 |   
| 6970 Special Topics: Comp Intel. & Adversarial ML | 0,66 | 0,66 | 1,00 | 0,66 |  
| 6970 Special Topics: Game Design for Social Change | 1,00 | 0,33 | 1,00 | 1,00 |  
| 6970 Special Topics: Cybersecurity Threats&CounterM | 1,00 | 0,33 | 0,33 | 0,00 |  
| 6970 Special Topics: Cyber Physical Systems Security | 0,00 | 0,00 | 0,66 | 0,66 |  
| 6970 Special Topics: Computational Biology | 0,00 | 0,66 | 1,00 | 1,00 |  
| 6970 Special Topics: Deep Learning | 0,66 | 0,66 | 1,00 | 0,66 |  
| 6970 Special Topics: Game Design and Development | 0,66 | 1,00 | 0,33 | 0,00 |  
| 6970 Special Topics: Information Retrieval | 0,00 | 0,66 | 0,33 | 0,66 |   
| 6830 Cybersecurity Threats and Countermeasures | 1,00 | 0,66 | 1,00 | 0,66 |  
| 6970 Special Topics: Software Analytics | 0,00 | 1,00 | 1,00 | 0,66 |  
| 6970 Special Topics: iOS Development | 1,00 | 0,66 | 0,00 | 0,66 |  
| 6970 Special Topics: Binary Program Analysis | 0,33 | 0,66 | 1,00 | 0,66 |   
| 7120 Database Systems II | 0,00 | 0,00 | 1,00 | 1,00 |  
| 7270 Advanced Topics in Algorithms | 1,00 | 1,00 | 1,00 | 1,00 |  
| 7300 Advanced Computer Architecture | 1,00 | 0,66 | 1,00 | 0,33 |  
| 7330 Topics in Parallel and Distributed Computing | 0,00 | 0,66 | 1,00 | 0,33 |  
| 7370 Advanced Computer and Network Security | 1,00 | 1,00 | 1,00 | 1,00 |   
| 7500 Advanced Topics in Operating Systems | 1,00 | 0,66 | 0,33 | 0,33 |  
| 7620 Human Computer Interaction | 0,00 | 0,33 | 1,00 | 0,33 |  
| 7700 Software Architecture | 0,00 | 1,00 | 0,00 | 0,00 |  
| 7720 Software Re-Engineering | 0,83 | 0,00 | 0,00 | 0,66 |  
| 7800 AI for Security | 0,00 | 0,00 | 1,00 | 0,00 |  
| 7950 Introduction Graduate Study Computer Science | 0,00 | 0,00 | 0,00 | 0,33 |   
| 7970 Natural Language Processing | 0,00 | 0,66 | 0,66 | 1,00 |  
| 8930 Directed Study | 0,66 | 0,66 | 1,00 | 1,00 |  
| 8990 Research and Thesis, Measure 1 | 1,00 | 0,00 | 0,00 | 0,00 |  
| 8990 Research and Thesis, Measure 2 | 0,00 | 0,00 | 1,00 | 0,00 |  
| 8990 Research and Thesis, Measure 3 | 0,00 | 0,00 | 1,00 | 0,00 |  
| 8990 Research and Thesis, Measure 4 | 0,00 | 0,00 | 1,00 | 0,00 |   
| 8990 Research and Thesis, Measure 5 | 0,00 | 0,00 | 0,00 | 1,00 |  
| 8990 Research and Thesis, Measure 6 | 0,00 | 0,00 | 0,00 | 1,00 |  
| 8990 Research and Thesis, Measure 7 | 0,00 | 0,00 | 1,00 | 0,00 |  
| 8990 Research and Thesis, Measure 8 | 0,00 | 0,00 | 0,00 | 1,00 |  
| 8990 Research and Thesis, Measure 9 | 0,00 | 0,00 | 0,00 | 1,00 |   
  
  
\*\*Measurement\*\*  
  
\*\*Outcome-Measure Alignment\*\*   
  
The assessment measures are carefully chosen and developed to align with the program's student learning outcomes. Each outcome is assessed using a combination of direct and indirect measures, including:  
  
\* \*\*Direct Measures:\*\* Exams, quizzes, projects, presentations, and research papers evaluated using rubrics aligned with specific learning outcomes.  
\* \*\*Indirect Measures:\*\* Course grades, student surveys, alumni surveys, and employer surveys to gather feedback on program effectiveness and student learning.  
  
\*\*Direct Measures\*\*  
  
The following assessments are considered direct measures of student learning in the CSSE program:  
  
\* \*\*Exams:\*\* Comprehensive exams covering core concepts and skills outlined in the student learning outcomes.  
\* \*\*Projects:\*\* Course-specific projects that require students to apply their knowledge and skills to solve real-world problems, evaluated using rubrics aligned with relevant outcomes.  
\* \*\*Presentations:\*\* Oral presentations of research findings, project outcomes, or case study analyses, assessed based on clarity, organization, and alignment with specific learning outcomes.  
\* \*\*Research Papers:\*\* Master's thesis and doctoral dissertation research and writing, evaluated on rigor, originality, and contribution to the field, aligned with relevant outcomes.  
  
\*\*Data Collection Methods\*\*  
  
Assessment data are collected using a variety of methods, including:  
  
\* \*\*Canvas LMS:\*\* Quizzes, assignments, and project submissions are collected and graded digitally through the Canvas learning management system.  
\* \*\*Qualtrics Surveys:\*\* Student and alumni surveys are administered through Qualtrics to gather feedback on program effectiveness and student learning experiences.  
\* \*\*Faculty Evaluation:\*\* Faculty members evaluate student work, including exams, projects, presentations, and research papers, using rubrics aligned with specific learning outcomes.   
  
  
\*\*Results\*\*  
\*\*Reporting Results\*\*  
  
The table below shows the performance of PhD students in various CSSE courses, measured in terms of letter grades achieved.   
  
| Course\_name | Professor | A | B | C | D | F | Score | Total\_students |  
|---|---|---|---|---|---|---|---|---|  
| COMP 6000 | Marghitu | 4 | 0 | 0 | 0 | 0 | 100,0 | 4 |  
| COMP 6120 | Ku (Spring/Fall) | 5 | 0 | 0 | 0 | 0 | 100,0 | 5 |  
| COMP 6210 | Mulder | 1 | 0 | 0 | 0 | 0 | 100,0 | 1 |  
| COMP 6130 | Zhou | 3 | 0 | 0 | 0 | 0 | 100,0 | 3 |  
| COMP 6320 | Shu | 3 | 2 | 0 | 0 | 0 | 90,0 | 5 |  
| COMP 6350 | Cuneo | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6360 | Lim | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6370 | Springall | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6520 | Umphress (Summer) | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6530 | Sardinas | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6600 | Liu | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6620 | Seals | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6630 | A. Nguyen/Karmaker | 4 | 1 | 0 | 0 | 0 | 95,0 | 5 |  
| COMP 6660 | Tauritz | 2 | 1 | 0 | 0 | 0 | 91,7 | 3 |  
| COMP 6700 | Umphress | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6710 | Rahman | 0 | 0 | 0 | 1 | 0 | 25,0 | 1 |  
| COMP 6970-CTCM | Cuneo | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6970-CPS | Yampolskiy | 3 | 0 | 0 | 0 | 0 | 100,0 | 3 |  
| COMP 6970-BPA | Mulder | 1 | 0 | 0 | 0 | 0 | 100,0 | 1 |  
| COMP 6970-GDSC | Thomas | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 7970-Research EC | Tauritz | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6970 | Heaton | 1 | 0 | 0 | 0 | 0 | 100,0 | 1 |  
| COMP 6970 | A Nguyen | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6970 | Seals | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6970-IR | Karmaker | 3 | 0 | 0 | 0 | 0 | 100,0 | 3 |  
| COMP 6830 | Springall | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6970 | Sardinas | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 6970 iOS | Chapman | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 7270 | Zhou | 17 | 1 | 0 | 0 | 0 | 98,6 | 18 |  
| COMP 7300 | Baskiyar | 13 | 10 | 2 | 1 | 0 | 83,7 | 26 |  
| COMP 7370 | Shu | 2 | 0 | 0 | 0 | 0 | 100,0 | 2 |  
| COMP 7500 | Qin | 13 | 4 | 0 | 0 | 0 | 94,1 | 17 |  
| COMP 7620 | Seals | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |  
| COMP 7720 | Yamposkiy | 1 | 1 | 0 | 0 | 0 | 87,5 | 2 |  
| COMP 7930/7980/8930 | Qin | 6 | 0 | 0 | 0 | 0 | 100,0 | 6 |  
| COMP 7970-NLP | Karmaker | 3 | 0 | 0 | 0 | 0 | 100,0 | 3 |  
| COMP 7990/8990 | Qualtrics Measure 1 | 45 | 13 | 4 | 0 | 0 | 91,5 | 62 |  
| COMP 7990/8990 | Qualtrics Measure 2 | 39 | 18 | 4 | 0 | 0 | 89,3 | 61 |  
| COMP 7990/8990 | Qualtrics Measure 3 | 30 | 28 | 4 | 0 | 0 | 85,5 | 62 |  
| COMP 7990/8990 | Qualtrics Measure 4 | 30 | 29 | 3 | 0 | 0 | 85,9 | 62 |  
| COMP 7990/8990 | Qualtrics Measure 5 | 33 | 28 | 1 | 0 | 0 | 87,9 | 62 |  
| COMP 7990/8990 | Qualtrics Measure 6 | 27 | 33 | 2 | 0 | 0 | 85,1 | 62 |  
| COMP 7990/8990 | Qualtrics Measure 7 | 27 | 31 | 4 | 0 | 0 | 84,3 | 62 |  
| COMP 7990/8990 | Qualtrics Measure 8 | 30 | 32 | 0 | 0 | 0 | 87,1 | 62 |  
| COMP 7990/8990 | Qualtrics Measure 9 | 29 | 29 | 4 | 0 | 0 | 85,1 | 62 |  
  
\*\*Communicating Results\*\*  
  
Assessment results, including data summaries and interpretations, are regularly communicated to program stakeholders, including:  
  
\* \*\*Faculty:\*\* Results are shared and discussed with all program faculty during department meetings.  
\* \*\*Students:\*\* Aggregated and anonymized results are shared with students through town hall meetings or online platforms.  
\* \*\*Administration:\*\* Summary reports are submitted to the department chair, Dean, and relevant committees for review and feedback.  
  
  
The table below presents the overall performance ratings for each Student Learning Outcome (SLO) within the PhD CSSE program for 2030.   
  
| SLOs | Score | Ratings |  
|---|---|---|  
| SLO1 | 91,9 | Exemplary |  
| SLO2 | 93,4 | Exemplary |  
| SLO3 | 87,5 | Proficient |  
| SLO4 | 54,0 | Needs Improvement |  
  
\*\*Interpretation:\*\*  
  
SLO1 and SLO2 continue to exhibit exemplary performance, indicating successful attainment of problem-solving skills and system design abilities among PhD CSSE students. SLO3, while demonstrating proficiency, reflects a slight decline compared to the previous year, suggesting a potential need for enhanced support in research analysis and solution proposal. This area will be closely monitored in the coming year.  
  
Significantly, SLO4 requires immediate attention. The 'Needs Improvement' rating highlights a concerning deficiency in research communication skills among students. This indicates a critical need for targeted interventions and curriculum adjustments to address this shortfall effectively.   
  
\*\*Use of Results\*\*  
  
\*\*Interpretation\*\*  
  
The results indicate a strong performance in SLO1 (Apply appropriate theoretical, algorithmic, and systems concepts to solve complex computing problems) and SLO2 (Design, implement, and evaluate software/hardware systems or components that meet specified requirements) suggesting that the program is effectively preparing students in these areas. However, the lower performance on SLO4 (Effectively communicate research findings in both oral and written formats to diverse audiences) suggests that there is room for improvement in this area. This could be due to a variety of factors such as a lack of dedicated courses focusing on scientific writing and presentation skills, or a need for more opportunities for students to practice these skills in a supportive environment.  
  
\*\*Purposeful Reflection\*\*  
  
The faculty teaching in the program meet annually to discuss the assessment results and identify areas for improvement. This year, the faculty will focus on the following:  
  
\* Discuss the reasons for the lower performance on SLO4 and brainstorm strategies for improvement.  
\* Review the curriculum map and identify potential gaps or areas where instruction related to scientific writing and communication can be strengthened.  
\* Explore the possibility of incorporating more opportunities for students to present their work and receive feedback from both faculty and peers.  
  
\*\*Action Plan for 2030:\*\*  
  
Based on the analysis of the 2030 assessment data, the following actions have been identified to address areas needing improvement and maintain strengths within the CSSE program:  
  
\*\*SLO1 (Exemplary):\*\*  
  
\* \*\*Maintenance:\*\* Continue to emphasize the application of theoretical concepts in practical settings through problem-solving sessions and real-world case studies within core courses.  
\* \*\*Continuous Improvement:\*\* Explore incorporating emerging technologies and industry trends into course projects to enhance students' problem-solving capabilities in relevant areas.  
  
\*\*SLO2 (Exemplary):\*\*  
  
\* \*\*Maintenance:\*\* Maintain the current emphasis on hands-on projects and system design experiences throughout the curriculum, ensuring access to up-to-date software and hardware resources.  
\* \*\*Continuous Improvement:\*\* Investigate partnerships with industry leaders to offer guest lectures, workshops, or project collaborations that expose students to cutting-edge design and implementation practices.  
  
\*\*SLO3 (Proficient):\*\*  
  
\* \*\*Monitoring:\*\* Continue to monitor student performance in research analysis and solution proposal, paying particular attention to courses like COMP 6600 (Artificial Intelligence), COMP 7620 (Human Computer Interaction), and COMP 7800 (AI for Security) which directly contribute to this SLO.  
\* \*\*Targeted Support:\*\* Offer workshops or online resources focused on literature review techniques, critical analysis skills, and developing innovative research proposals.  
  
\*\*SLO4 (Needs Improvement):\*\*  
  
\* \*\*Curriculum Enhancement:\*\* Integrate a new required course focused specifically on scientific writing and communication for PhD students. This course will cover essential aspects of technical writing, presentation skills, data visualization, and effective communication strategies for diverse audiences.  
\* \*\*Increased Presentation Opportunities:\*\* Incorporate mandatory research presentations within existing courses like COMP 7970 (Natural Language Processing) and COMP 8930 (Directed Study) to provide students with more platforms to practice their communication skills and receive constructive feedback from faculty and peers.  
\* \*\*Writing Support Resources:\*\* Partner with the university writing center to provide specialized writing support services tailored to the needs of CSSE graduate students. This can include workshops, one-on-one consultations, and online resources focused on technical writing, dissertation writing, and conference paper submissions.  
  
\*\*Re-assessment Plans for 2031:\*\*  
  
\* \*\*Data Collection:\*\* Repeat the assessment of all four SLOs using the established measures and data collection methods. Additionally, collect data on student engagement and feedback regarding the newly implemented initiatives aimed at improving SLO4.  
\* \*\*Analysis and Interpretation:\*\* Analyze the assessment data to evaluate the effectiveness of the action plan in improving SLO4 and maintaining performance levels in other areas. Pay attention to trends and patterns in student performance over time.  
\* \*\*Reflection and Refinement:\*\* The faculty will reconvene in 2031 to review the re-assessment findings and make further adjustments to the curriculum, instruction, or assessment methods as needed.   
  
This iterative process of assessment, reflection, and action will enable the CSSE program to continuously improve its effectiveness in preparing students for successful careers in research, academia, and industry.

# Curriculum Map (from SLO Computed - Year 2030)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Courses | SLO1 | SLO2 | SLO3 | SLO4 |
| 6000 Web Application Development | 0,00 | 1,00 | 0,00 | 1,00 |
| 6120 Database Systems I (Fall/Spring) | 1,00 | 1,00 | 0,33 | 0,66 |
| 6130 Data Mining | 1,00 | 0,33 | 0,66 | 1,00 |
| 6210 Compiler Construction | 0,66 | 1,00 | 0,33 | 0,66 |
| 6320 Design and Analysis of Computer Networks | 0,66 | 0,66 | 1,00 | 0,00 |
| 6340 Network Quality Assurance and Simulation | 0,33 | 0,66 | 1,00 | 0,00 |
| 6350 Digital Forensics | 0,33 | 0,00 | 0,00 | 0,00 |
| 6360 Wireless and Mobile Networks | 1,00 | 0,66 | 1,00 | 0,66 |
| 6370 Computer and Network Security | 0,33 | 0,00 | 1,00 | 0,00 |
| 6400 Foundation of Computer Graphics | 0,00 | 0,66 | 1,00 | 0,00 |
| 6520 Network and Operating Sys Admin | 0,00 | 0,00 | 1,00 | 0,00 |
| 6530 Cloud Computing | 0,00 | 1,00 | 0,33 | 0,00 |
| 6600 Artificial Intelligence | 0,66 | 0,00 | 1,00 | 0,00 |
| 6620 User Interface Design and Evaluation | 0,00 | 0,66 | 1,00 | 0,66 |
| 6630 Machine Learning | 0,66 | 0,66 | 0,66 | 0,66 |
| 6660 Intro to Evolutionary Comp | 0,66 | 0,66 | 1,00 | 0,66 |
| 6700 Software Process | 0,00 | 1,00 | 0,00 | 0,00 |
| 6710 Software Quality Assurance | 0,66 | 1,00 | 0,66 | 1,00 |
| 6970 Special Topics: Comp Intel. & Adversarial ML | 0,66 | 0,66 | 1,00 | 0,66 |
| 6970 Special Topics: Game Design for Social Change | 1,00 | 0,33 | 1,00 | 1,00 |
| 6970 Special Topics: Cybersecurity Threats&CounterM | 1,00 | 0,33 | 0,33 | 0,00 |
| 6970 Special Topics: Cyber Physical Systems Security | 0,00 | 0,00 | 0,66 | 0,66 |
| 6970 Special Topics: Computational Biology | 0,00 | 0,66 | 1,00 | 1,00 |
| 6970 Special Topics: Deep Learning | 0,66 | 0,66 | 1,00 | 0,66 |
| 6970 Special Topics: Game Design and Development | 0,66 | 1,00 | 0,33 | 0,00 |
| 6970 Special Topics: Information Retrieval | 0,00 | 0,66 | 0,33 | 0,66 |
| 6830 Cybersecurity Threats and Countermeasures | 1,00 | 0,66 | 1,00 | 0,66 |
| 6970 Special Topics: Software Analytics | 0,00 | 1,00 | 1,00 | 0,66 |
| 6970 Special Topics: iOS Development | 1,00 | 0,66 | 0,00 | 0,66 |
| 6970 Special Topics: Binary Program Analysis | 0,33 | 0,66 | 1,00 | 0,66 |
| 7120 Database Systems II | 0,00 | 0,00 | 1,00 | 1,00 |
| 7270 Advanced Topics in Algorithms | 1,00 | 1,00 | 1,00 | 1,00 |
| 7300 Advanced Computer Architecture | 1,00 | 0,66 | 1,00 | 0,33 |
| 7330 Topics in Parallel and Distributed Computing | 0,00 | 0,66 | 1,00 | 0,33 |
| 7370 Advanced Computer and Network Security | 1,00 | 1,00 | 1,00 | 1,00 |
| 7500 Advanced Topics in Operating Systems | 1,00 | 0,66 | 0,33 | 0,33 |
| 7620 Human Computer Interaction | 0,00 | 0,33 | 1,00 | 0,33 |
| 7700 Software Architecture | 0,00 | 1,00 | 0,00 | 0,00 |
| 7720 Software Re-Engineering | 0,83 | 0,00 | 0,00 | 0,66 |
| 7800 AI for Security | 0,00 | 0,00 | 1,00 | 0,00 |
| 7950 Introduction Graduate Study Computer Science | 0,00 | 0,00 | 0,00 | 0,33 |
| 7970 Natural Language Processing | 0,00 | 0,66 | 0,66 | 1,00 |
| 8930 Directed Study | 0,66 | 0,66 | 1,00 | 1,00 |
| 8990 Research and Thesis, Measure 1 | 1,00 | 0,00 | 0,00 | 0,00 |
| 8990 Research and Thesis, Measure 2 | 0,00 | 0,00 | 1,00 | 0,00 |
| 8990 Research and Thesis, Measure 3 | 0,00 | 0,00 | 1,00 | 0,00 |
| 8990 Research and Thesis, Measure 4 | 0,00 | 0,00 | 1,00 | 0,00 |
| 8990 Research and Thesis, Measure 5 | 0,00 | 0,00 | 0,00 | 1,00 |
| 8990 Research and Thesis, Measure 6 | 0,00 | 0,00 | 0,00 | 1,00 |
| 8990 Research and Thesis, Measure 7 | 0,00 | 0,00 | 1,00 | 0,00 |
| 8990 Research and Thesis, Measure 8 | 0,00 | 0,00 | 0,00 | 1,00 |
| 8990 Research and Thesis, Measure 9 | 0,00 | 0,00 | 0,00 | 1,00 |

# Reporting Results (from Grades - Year 2030)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course\_name | Professor | A | B | C | D | F | Score | Total\_students |
| COMP 6000 | Marghitu | 4 | 0 | 0 | 0 | 0 | 100,0 | 4 |
| COMP 6120 | Ku (Spring/Fall) | 5 | 0 | 0 | 0 | 0 | 100,0 | 5 |
| COMP 6210 | Mulder | 1 | 0 | 0 | 0 | 0 | 100,0 | 1 |
| COMP 6130 | Zhou | 3 | 0 | 0 | 0 | 0 | 100,0 | 3 |
| COMP 6320 | Shu | 3 | 2 | 0 | 0 | 0 | 90,0 | 5 |
| COMP 6350 | Cuneo | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6360 | Lim | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6370 | Springall | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6520 | Umphress (Summer) | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6530 | Sardinas | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6600 | Liu | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6620 | Seals | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6630 | A. Nguyen/Karmaker | 4 | 1 | 0 | 0 | 0 | 95,0 | 5 |
| COMP 6660 | Tauritz | 2 | 1 | 0 | 0 | 0 | 91,7 | 3 |
| COMP 6700 | Umphress | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6710 | Rahman | 0 | 0 | 0 | 1 | 0 | 25,0 | 1 |
| COMP 6970-CTCM | Cuneo | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6970-CPS | Yampolskiy | 3 | 0 | 0 | 0 | 0 | 100,0 | 3 |
| COMP 6970-BPA | Mulder | 1 | 0 | 0 | 0 | 0 | 100,0 | 1 |
| COMP 6970-GDSC | Thomas | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 7970-Research EC | Tauritz | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6970 | Heaton | 1 | 0 | 0 | 0 | 0 | 100,0 | 1 |
| COMP 6970 | A Nguyen | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6970 | Seals | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6970-IR | Karmaker | 3 | 0 | 0 | 0 | 0 | 100,0 | 3 |
| COMP 6830 | Springall | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6970 | Sardinas | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 6970 iOS | Chapman | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 7270 | Zhou | 17 | 1 | 0 | 0 | 0 | 98,6 | 18 |
| COMP 7300 | Baskiyar | 13 | 10 | 2 | 1 | 0 | 83,7 | 26 |
| COMP 7370 | Shu | 2 | 0 | 0 | 0 | 0 | 100,0 | 2 |
| COMP 7500 | Qin | 13 | 4 | 0 | 0 | 0 | 94,1 | 17 |
| COMP 7620 | Seals | 0 | 0 | 0 | 0 | 0 | 0,0 | 0 |
| COMP 7720 | Yamposkiy | 1 | 1 | 0 | 0 | 0 | 87,5 | 2 |
| COMP 7930/7980/8930 | Qin | 6 | 0 | 0 | 0 | 0 | 100,0 | 6 |
| COMP 7970-NLP | Karmaker | 3 | 0 | 0 | 0 | 0 | 100,0 | 3 |
| COMP 7990/8990 | Qualtrics Measure 1 | 45 | 13 | 4 | 0 | 0 | 91,5 | 62 |
| COMP 7990/8990 | Qualtrics Measure 2 | 39 | 18 | 4 | 0 | 0 | 89,3 | 61 |
| COMP 7990/8990 | Qualtrics Measure 3 | 30 | 28 | 4 | 0 | 0 | 85,5 | 62 |
| COMP 7990/8990 | Qualtrics Measure 4 | 30 | 29 | 3 | 0 | 0 | 85,9 | 62 |
| COMP 7990/8990 | Qualtrics Measure 5 | 33 | 28 | 1 | 0 | 0 | 87,9 | 62 |
| COMP 7990/8990 | Qualtrics Measure 6 | 27 | 33 | 2 | 0 | 0 | 85,1 | 62 |
| COMP 7990/8990 | Qualtrics Measure 7 | 27 | 31 | 4 | 0 | 0 | 84,3 | 62 |
| COMP 7990/8990 | Qualtrics Measure 8 | 30 | 32 | 0 | 0 | 0 | 87,1 | 62 |
| COMP 7990/8990 | Qualtrics Measure 9 | 29 | 29 | 4 | 0 | 0 | 85,1 | 62 |

# Communication Results (from SLO Scores and Ratings - Year 2030)

|  |  |  |
| --- | --- | --- |
| SLOs | Score | Ratings |
| SLO1 | 91,9 | Exemplary |
| SLO2 | 93,4 | Exemplary |
| SLO3 | 87,5 | Proficient |
| SLO4 | 54,0 | Insatisfactory |