

STUDENT LEARNING OUTCOMES AND ASSESSMENTS FOR THE M.S. COMPUTATIONAL SCIENCES

Student Learning Outcomes (performance, knowledge, attitudes)	Related Program/ Departmental Goals	Related College Goals	Related University Goals	Method(s) of Assessment (What is the assessment?)*	Who Assessed (Students from what courses – population)**	When Assessed (term, dates) ***	Standard of Mastery/ Criterion of Achievement (How good does performance have to be?)
<p>1. Basic knowledge: Graduates will demonstrate an understanding of each of the subject areas that define the discipline as well as the interrelationships that exist among them.</p>	<p>Goals 1 & 2. Promote the role of computer science and computer literacy in undergraduate education at Central Washington University.</p> <p>Offer undergraduate programs that train students as computer specialists with a fundamental understanding of technology.</p>	<p>Goal I: Provide for an outstanding academic and student experience in the College of the Sciences.</p>	<p>Goal I: Maintain and strengthen an outstanding academic and student life on the Ellensburg campus.</p>	<p>MFT taken by graduating students</p> <p>Performance in the core courses</p>	<p>Graduate Student (for each outcome)</p>	<p>During program of study</p>	<p>GPA above 3.0 and no grade lower than a C in required core content and elective classes on student's course of study form</p> <p>Successful completion and presentation of culminating project in Capstone course.</p> <p>Evidence of improvement in exit survey compared to entry survey.</p>
<p>2. Critical Thinking Skills: Graduates will demonstrate the ability to utilize appropriate theoretical constructs for problem solving: definitions, and axioms, theorems, proofs, and interpretation of results.</p>	<p>Goal 2. Offer undergraduate programs that train students as computer specialists with a fundamental understanding of technology.</p>	<p>Goal I: Provide for an outstanding academic and student experience in the College of the Sciences.</p>	<p>Goal I: Maintain and strengthen an outstanding academic and student life on the Ellensburg campus.</p>	<p>Capstone Project</p> <p>Entrance/ Exit Survey</p> <p>Class Performance</p>	<p>Graduate Student (for each outcome)</p>	<p>During program of study</p> <p>Pre-post survey</p>	<p>GPA above 3.0 and no grade lower than a C in required core content and elective classes on student's course of study form</p> <p>Successful completion and presentation of culminating project in Capstone course.</p> <p>Evidence of improvement in exit survey compared to entry survey</p>

<p>3. Research Skills: Graduates will have the ability to apply basic research methods in computer science.</p>	<p>Goals 3, 5 & 6. Maintain an intellectually stimulating learning environment where diverse perspectives are valued and encouraged.</p> <p>Play a leadership role in scholarship by making basic and relevant scientific contributions to our respective sub-disciplines.</p> <p>Build an interdisciplinary program and an associated Masters Degree program.</p>	<p>Goal VII & III: Create and sustain productive, civil, and pleasant learning environment.</p> <p>Provide for outstanding graduate programs that meet focused regional needs and achieve academic excellence.</p>	<p>Goal VI & V: Build inclusive and diverse campus communities that promote intellectual inquiry and encourage civility, mutual respect, and cooperation.</p> <p>Achieve regional and national prominence for the university.</p>	<p>Student participation in local and national conferences, including SOURCE</p> <p>Student participation in research projects and groups.</p>	<p>Graduating Student (for each outcome)</p> <p>Students involved with conference</p> <p>Students involved in graduate research</p>	<p>Reviewed annually.</p>	<p>All graduates will produce a successful research paper.</p> <p>Range from a constant to an increasing number presenting at SOURCE</p> <p>External research presentations or publications annually with student participation.</p>
<p>4. Technical and Theoretical Background: Graduates will demonstrate knowledge of recent technological and theoretical developments, general professional standards, and have an awareness of their own strengths and limitations as well as those of the discipline itself.</p>	<p>Goals 3 & 5. Maintain an intellectually stimulating learning environment where diverse perspectives are valued and encouraged.</p> <p>Play a leadership role in scholarship by making basic and relevant scientific contributions to our respective sub-disciplines.</p>	<p>Goal VII & III: Create and sustain productive, civil, and pleasant learning environment.</p> <p>Provide for outstanding graduate programs that meet focused regional needs and achieve academic excellence.</p>	<p>Goal VI & V: Build inclusive and diverse campus communities that promote intellectual inquiry and encourage civility, mutual respect, and cooperation.</p> <p>Achieve regional and national prominence for the university.</p>	<p>Performance in core classes.</p> <p>Performance in MS Thesis / Project presentations</p>	<p>Graduate students.</p>	<p>Reviewed annually.</p>	<p>Students meet the student learning outcomes of core classes.</p> <p>All student groups will meet professional standards in generating course documents.</p>

<p>5.Communication Skills: Graduates will have the ability to communicate effectively.</p>	<p>Goal 2. Offer undergraduate programs that train students as computer specialists with a fundamental understanding of technology.</p>	<p>Goal I: Provide for an outstanding academic and student experience in the College of the Sciences.</p>	<p>Goal I: Maintain and strengthen an outstanding academic and student life on the Ellensburg campus.</p>	<p>Capstone Project Entrance/ Exit Survey Class Performance</p>	<p>Graduate Student (for each outcome)</p>	<p>During program of study Pre-post survey</p>	<p>GPA above 3.0 and no grade lower than a C in required core content and elective classes on student's course of study form Successful completion and presentation of Thesis / Capstone Project. Evidence of improvement in exit survey compared to entry survey</p>
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*Method(s) of assessment should include those that are both direct (tests, essays, presentations, projects) and indirect (surveys, interviews) in nature

**Data needs to be collected and differentiated by location (Ellensburg campus vs University Centers – see NWCCU standard 2.B.2)

***Timing of assessment should be identified at different transition points of program (i.e., admission, mid-point, end-of-program, post-program)

