

BACHELOR OF SCIENCE IN COMPUTER SOFTWARE TECHNOLOGY ANNUAL ASSESSMENT PLAN & FINDINGS 2023-2024 ACADEMIC YEAR

2023 – 2024 CURRICULUM MAP

	PLO 1 Apply knowledge of mathematics , computing, and scientific methods to system components and process development that meet requirement constraints in the software application domain.	PLO 2 Employ professionalism, ethics, and social responsibility values related to computer software technology tasks and projects.	PLO 3 Identify the software requirements that meet stakeholders' specifications and concerns by selecting the appropriate requirements and elicitation techniques.	PLO 4 Use proven techniques and patterns to design software structure before it is implemented.	PLO 5 Utilize values, skills, and critical thinking throughout computer software engineering decision making processes.	PLO 6 Apply established verification and validation techniques with well-defined objectives and targets to ensure that the software is meeting its stakeholders' specifications and deliverables.	PLO 7 Communicate complex software engineering concepts in a multidisciplinary team using a variety of formats.	PLO 8 Integrate modern knowledge, techniques, programming and management skills to develop and deliver reliable and complex software in a cost-effective manner.
<i>MAT 232: Statistical Literacy</i>	I			I	I	I	I	
<i>ECO 203: Principles of Macroeconomics</i>	R	I			R		R	I
<i>ENG 328: Scientific and Technical Writing</i>	R		R	R			R	R
<i>TEC 101: Fundamentals of Information Technology & Literacy</i>	R	R	I	R	R	R	R	R
<i>CPT 200: Fundamentals of Programming Languages</i>	R	R	R		R	R		R
<i>CPT 301: Computer Organization & Architecture</i>	R							
<i>CPT 304: Operating Systems Theory & Design</i>	R							

<i>CPT 307: Data, Structures, Algorithms, and Design</i>	R	R			R			R
<i>INT 301: Computer Networking</i>	R				R			R
<i>CPT 310: Database Systems & Management</i>	R		R		R			R
<i>CYB 300: System Administration and Security</i>	R	R			R			
<i>CST 301: Software Technology and Design</i>	R	R	R	R	R	R	R	R
<i>TMG 300: Scrum Basics</i>	R				R		R	R
<i>CST 304: Software Requirements and Analysis</i>	R		R				R	R
<i>CST 307: Software Architecture and Design</i>	R	R		R	R		R	R
<i>CST 310: Software Development</i>	R		R		R			R
<i>CST 313: Software Testing</i>	R				R	R		R
<i>CST 316: Information Security Management</i>	R	R			R			R
<i>CST 499: Capstone for Computer Software Technology</i>	M	M	M	M	M	M	M	M

I (Introduced), **R** (Reinforced), or **M** (Mastered).

ANNUAL ASSESSMENT PLAN FINDINGS					
PLO 1 - Apply knowledge of mathematics, computing, and scientific methods to system components and process development that meet requirement constraints in the software application domain.					
MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS OBSERVED	ASSESSMENT RESULTS: PERCENTAGE OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	ASSESSMENT RESULTS: 1. EXCEEDS THE ACCEPTABLE TARGET 2. MEETS THE ACCEPTABLE TARGET 3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA
Direct Measure 1: CST 316 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a	393	420	93.6%	1. EXCEEDS THE ACCEPTABLE TARGET

	proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.				
Direct Measure 2: CST 499 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	374	410	91.2%	1. EXCEEDS THE ACCEPTABLE TARGET
Indirect Measure 1: INT 301 End of Course Survey: The quality of my educational experience has met my expectations.	70% or more of students who complete and return the End of Course Survey express satisfaction by indicating "Agree" or "Strongly Agree" on selected survey items.	69	80	86.3%	1. EXCEEDS THE ACCEPTABLE TARGET
PLO 2 - Employ professionalism, ethics, and social responsibility values related to computer software technology tasks and projects.					
MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS OBSERVED	ASSESSMENT RESULTS: PERCENTAGE OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	ASSESSMENT RESULTS: 1. EXCEEDS THE ACCEPTABLE TARGET 2. MEETS THE ACCEPTABLE TARGET

					3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA
Direct Measure 1: CST 307 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	374	395	94.7%	1. EXCEEDS THE ACCEPTABLE TARGET
Direct Measure 2: CST 499 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	54	58	93.1%	1. EXCEEDS THE ACCEPTABLE TARGET
Indirect Measure 1: CST 499 End of Course Survey: The quality of my educational experience has met my expectations.	70% or more of students who complete and return the End of Course Survey express satisfaction by indicating "Agree" or "Strongly Agree" on selected survey items.	12	16	75.0%	1. EXCEEDS THE ACCEPTABLE TARGET
PLO 3 - Identify the software requirements that meet stakeholders' specifications and concerns by selecting the appropriate requirements and elicitation techniques.					

MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS OBSERVED	ASSESSMENT RESULTS: PERCENTAGE OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	ASSESSMENT RESULTS: 1. EXCEEDS THE ACCEPTABLE TARGET 2. MEETS THE ACCEPTABLE TARGET 3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA
Direct Measure 1: CST 310 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	182	194	93.8%	1. EXCEEDS THE ACCEPTABLE TARGET
	70% of Bachelor of Science in Computer Software Technology students must receive a	374	410	91.2%	1. EXCEEDS THE ACCEPTABLE TARGET

Direct Measure 2: CST 499 Final Project	proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.				
Indirect Measure 1: CST 499 End of Course Survey: I would recommend this course to another student.	70% or more of students who complete and return the End of Course Survey express satisfaction by indicating "Agree" or "Strongly Agree" on selected survey items.	12	16	75.0%	1. EXCEEDS THE ACCEPTABLE TARGET
PLO 4 - Use proven techniques and patterns to design software structure before it is implemented.					
MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS OBSERVED	ASSESSMENT RESULTS: PERCENTAGE OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	1. EXCEEDS THE ACCEPTABLE TARGET 2. MEETS THE ACCEPTABLE TARGET 3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA
Direct Measure 1: CST 307 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a	333	396	84.1%	1. EXCEEDS THE ACCEPTABLE TARGET

	proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.				
Direct Measure 2: CST 499 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	54	58	93.1%	1. EXCEEDS THE ACCEPTABLE TARGET
Indirect Measure 1: CST 499 End of Course Survey: I would recommend this instructor to another student.	70% or more of students who complete and return the End of Course Survey express satisfaction by indicating "Agree" or "Strongly Agree" on selected survey items.	12	16	75.0%	1. EXCEEDS THE ACCEPTABLE TARGET
PLO 5 - Utilize values, skills, and critical thinking throughout computer software engineering decision making processes.					
MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS OBSERVED	ASSESSMENT RESULTS: PERCENTAGE OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	ASSESSMENT RESULTS: 1. EXCEEDS THE ACCEPTABLE TARGET 2. MEETS THE ACCEPTABLE TARGET

					3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA
Direct Measure 1: CST 316 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	52	60	86.7%	1. EXCEEDS THE ACCEPTABLE TARGET
Direct Measure 2: CST 499 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	320	352	90.9%	1. EXCEEDS THE ACCEPTABLE TARGET
Indirect Measure 1: CST 301 End of Course Survey: The quality of my educational experience has met my expectations.	70% or more of students who complete and return the End of Course Survey express satisfaction by indicating "Agree" or "Strongly Agree" on selected survey items.	49	55	89.1%	1. EXCEEDS THE ACCEPTABLE TARGET
PLO 6 - Apply established verification and validation techniques with well-defined objectives and targets to ensure that the software is meeting its stakeholders' specifications and deliverables.					

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Direct Measure 1: CST 313 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	100	106	94.3%	1. EXCEEDS THE ACCEPTABLE TARGET
Direct Measure 2: CST 499 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	374	410	91.2%	1. EXCEEDS THE ACCEPTABLE TARGET

Indirect Measure 1: CST 499 End of Course Survey: The quality of my educational experience has met my expectations.	70% or more of students who complete and return the End of Course Survey express satisfaction by indicating "Agree" or "Strongly Agree" on selected survey items.	12	16	75.0%	1. EXCEEDS THE ACCEPTABLE TARGET
PLO 7 - Communicate complex software engineering concepts in a multidisciplinary team using a variety of formats.					
MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS OBSERVED	ASSESSMENT RESULTS: PERCENTAGE OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	ASSESSMENT RESULTS: 1. EXCEEDS THE ACCEPTABLE TARGET 2. MEETS THE ACCEPTABLE TARGET 3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA

Direct Measure 1: CST 307 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	332	395	84.1%	1. EXCEEDS THE ACCEPTABLE TARGET
Direct Measure 2: CST 499 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	374	410	91.2%	1. EXCEEDS THE ACCEPTABLE TARGET
Indirect Measure 1: CST 307 End of Course Survey: I would recommend this course to another student.	70% or more of students who complete and return the End of Course Survey express satisfaction by indicating "Agree" or "Strongly Agree" on selected survey items.	12	13	92.3%	1. EXCEEDS THE ACCEPTABLE TARGET
PLO 8 - Integrate modern knowledge, techniques, programming and management skills to develop and deliver reliable and complex software in a cost-effective manner.					
MEASURE	ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS MEETING ACCEPTABLE TARGET	TOTAL NUMBER OF STUDENT RECORDS OBSERVED	ASSESSMENT RESULTS: PERCENTAGE OF STUDENT RECORDS MEETING	ASSESSMENT RESULTS: 1. EXCEEDS THE ACCEPTABLE TARGET

				ACCEPTABLE TARGET	2. MEETS THE ACCEPTABLE TARGET 3. DOES NOT MEET THE ACCEPTABLE TARGET 4. INSUFFICIENT DATA
Direct Measure 1: CST 310 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	364	389	93.6%	1. EXCEEDS THE ACCEPTABLE TARGET
Direct Measure 2: CST 499 Final Project	70% of Bachelor of Science in Computer Software Technology students must receive a proficient, or distinguished evaluation on relevant content criteria mapped to this PLO.	54	58	93.1%	1. EXCEEDS THE ACCEPTABLE TARGET
Indirect Measure 1: CST 499 End of Course Survey: I would recommend this course to another student.	70% or more of students who complete and return the End of Course Survey express satisfaction by indicating "Agree" or "Strongly Agree" on selected survey items.	12	16	75.0%	1. EXCEEDS THE ACCEPTABLE TARGET

OVERALL RECOMMENDATIONS

Overall, it is recommended that the assessment plan (including measures used, alignment mapping, and targets set) and the curriculum map be reviewed in preparation for the 2024-25 assessment cycle. This will determine the appropriateness of the assignments and mapping for each PLO. In addition, consider reviewing other course assignments to use as additional measures to assess.

ANNUAL ASSESSMENT PLAN ACTION ITEM STATUS REPORT

OUTCOME	MEASURE	KEY/RESPONSIBLE PERSONNEL	STATUS	ANTICIPATED DATE OF COMPLETION
<i>All</i>	<i>Direct</i>	<i>Lead Faculty, Assessment</i>	<i>Not Started</i>	<i>June 2025</i>
<i>Action Details</i>	<i>Review the proposed curriculum map for 24-25AY and consider adding MAT222 to the curriculum map.</i>			
OUTCOME	MEASURE	KEY/RESPONSIBLE PERSONNEL	STATUS	ANTICIPATED DATE OF COMPLETION
<i>PLOs 1, 6</i>	<i>INT301</i>	<i>Lead Faculty, Assessment</i>	<i>Not Started</i>	<i>June 2025</i>
<i>Action Details</i>	<i>Assess INT301 course data to determine steps for future course changes that will establish direct measures for PLOs 1 and 6.</i>			
OUTCOME	MEASURE	KEY/RESPONSIBLE PERSONNEL	STATUS	ANTICIPATED DATE OF COMPLETION
<i>All</i>	<i>CST499</i>	<i>Lead Faculty, Assessment</i>	<i>Not Started</i>	<i>June 2025</i>
<i>Action Details</i>	<i>Complete rubric norming for CST499 to validate the accuracy of the measures.</i>			