

MULTI-YEAR ASSESSMENT PLAN 2021 – 2027

Department: Mathematics and Computer Science

Chair: Russell W. Howell

Program Learning Outcomes	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	Assessment methods and tools	Benchmarks	Who is in charge?	How the loop will be closed /has been closed?
1. Communication			x				Typeset writing samples will be collected in MA 19, MA 20, MA 108, MA 180, CS 195, and other relevant CS courses. These samples will be evaluated according to the departmental writing rubric. Presentation materials and videos in MA 20 and MA 180 and relevant CS courses will be evaluated for according to the departmental rubric.	75% of lower division work will be at the acceptable level or above. 90% of upper division work will be acceptable and at least 50% will be outstanding.	Faculty teaching the courses will collect the data. The chair will coordinate the process of evaluation and response.	The department will determine whether there are particular areas in which students are deficient and determine methods to remediate those weaknesses.
2. Creativity				x			To be modified early in the fall semester, 2024			
3. Christian Connection					x		Each spring term in MA 180, and CS 195 student essays in response to the departmental prompt will be collected. Students will typically produce two responses to the prompt in two different years. The essays will be evaluated	At least 75% of students will be able to articulate a clear connection between their mathematical	The faculty members teaching MA 180 and CS 195 will assign the prompt and collect the responses.	TBD after the review.

							according to the departmental rubric.	and faith lives in their second response.	The chair will coordinate the process of review and responses.	
4. Core Knowledge						x	To be modified early in the fall semester, 2026, per the request of the 2021 external review team			
5.										
Key Questions							Means of inquiry and evaluation		Who is in charge?	Data-guided recommendations
1. How can Westmont sustain an excellent computer science program when hiring competent staff is difficult, yet two additional FTEs are needed?	x						Departmental meeting discussions to include creative ways of finding qualified personnel.		Department chair	
2. What modifications need to be made to the computer science and mathematics curriculum, and how can we attract/retain a diverse group of students, provide enhanced internship opportunities, and build community?	x	x	x	x	x	x	Discussion of recommendations made by the assessment team to include consideration of an applied mathematics minor, and the teaching of differential equations within the department. For internships, we will continue reaching out to alumni and coordinating with Paul Bradford.		Department chair, in consultation with the chairs of engineering and physics	Course enrollments will be tracked to help determine student interest. The outcomes will serve as a guide to future planning, but will not determine what parts of the program to strengthen.
3. Is the department giving sufficient attention to the QAR and RA aspects of the courses it is teaching?		x	x				The department will hold preliminary discussions in the spring of 2023 in which the current evaluation rubric will be refined, then		Department chair	

							evaluate the essays and/or videos collected in the spring of 2024 according to the new rubric.			
4. How do we ensure that we are attracting and retaining a diverse student body within our majors and that all our students feel connected to the departmental community?	x						Departmental Meetings		Entire department	
GE Projects							Means of inquiry and evaluation		Who is in charge?	Data-guided recommendations
1. Reasoning Abstractly		x					Results will be discussed in a department meeting when the data and subsequent analysis (conducted in the 2021-2022 academic year) by the Reasoning Abstractly Assessment Team is complete.			
2.										
3.										

<p><u>Discussion/Comments/Reflections:</u></p>

Departmental Program Review Retreats			
Date	Agenda	Decisions made	Participants

Notes:

1. Adjust the Multi-Year Assessment Plan to your department six-year assessment cycle.
2. Align your program-level assessment with the institutional or General Education assessment whenever possible: e.g., if your department has outcome aligned with the Quantitative Literacy ILO it should be assessed in the 2016-2017 academic year, etc.