

**Science and Mathematics Program Improvement (SAMPI),
Mallinson Institute for Science Education, Western Michigan University**

Project Evaluation Overview

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The purposes of the CPACE II project evaluation are to 1) track the progress of the project; 2) provide feedback to staff to improve programming; and 3) determine impacts of the project on participating faculty, students, and other stakeholders. The table below shows the relationship between specific evaluation questions and project objectives and data collection strategies.

Table 1. Evaluation Foci and Data Collection Strategies

Evaluation Questions	Project Objectives	Measures
1. In what ways has computational thinking been integrated into engineering curricula? What are the nature and effectiveness of the models and associated materials in supporting curriculum changes?	A. Implement new models for undergraduate computing education with focus on CT. B. Infuse CT into two undergraduate engineering programs. C. Develop a change management and OD system to promote organizational change at MSU and LCC.	<ul style="list-style-type: none"> • Review models, materials • Interview staff, faculty, other key stakeholders • Observe selected course sessions
2. What has been the nature and effectiveness of the CPACE Engineering Talent Development Network? How has it facilitated exchange of information and knowledge among participants?	D. Continue working with the CPACE Engineering Talent Development Network that have a stake in improving the economic, environmental, and social well-being of their communities and can offer appropriate guidance and context for the proposed curricular reform.	<ul style="list-style-type: none"> • Survey of Talent Development Network members • Interview sample of members • Interview staff
3. What have been the effects of the project on participating students and faculty?	E. Evaluate the efficacy of this approach to curricular CT-focused reform.	<ul style="list-style-type: none"> • Identify effects on students in capstone courses • Interview faculty
4. What have been the strengths and limitations of the project?	F. Achieve greater awareness and interest in CT from both internal (MSU, LCC) and external (industry groups, other educational institutions, and engineering professional societies).	<ul style="list-style-type: none"> • Review all evaluation findings • Conduct debriefing interviews with project staff, faculty