

**CPATH CB - Computing and Undergraduate Engineering: A Collaborative Process to Align Computing Education with Engineering Workforce Needs**

### **3 Project Timeline**

<b>Project Milestone</b>	<b>Period of Milestone Activity</b>	<b>Responsible Party</b>	<b>Expected Outcome for Milestone</b>
<b>Convene a Steering Committee</b> to identify persons to engage in project, develop the engagement process and tools to gather information on computational skill needs among engineers and technology-based professions	Months 1-4	Michigan State University (MSU), Corporation for a Skilled Workforce (CSW), Lansing Community College (LCC)	A work plan will be devised; stakeholders will be identified; process for engaging stakeholders in dialog will be outlined; and survey/interview tools will be developed.
<b>Engage Engineering and Technology Stakeholders</b> in region to conduct interviews and to connect with employees for surveys	Months 4-7	Steering Committee	We will have a list of employers and members of professional engineering societies that will be interested in participating in further engagement.
<b>Survey Engineers and Members of Professional Engineering Societies</b> using web-based surveys	Months 4-8	CSW	Surveys obtained from 200-400 persons.
<b>Interview Representatives of Engineering and Technology Companies</b> , including executives and HR representatives	Months 4-8	CSW and MSU	20-25 interviews will be conducted and written up for the analysis.
<b>Identify Key Computational Problem-solving Skills</b> from surveys and interviews	Months 9-11	MSU, LCC, CSW, CSAB/CAC consultant, Steering Committee	Report documenting analyses of surveys and interviews and the resulting key problem-solving skills

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<b>Abstract Computing Principles</b> that underlie the computational problem-solving skills.	Months 12-14	MSU, LCC, Steering Committee	Report mapping the skills to principles. The steering committee will review these for alignment with the computational problem-solving skills
<b>Disseminate the Findings and Engage Stakeholders in Dialogue</b> by designing and holding forums and other events to communicate findings from the process and begin planning for extensive engagement	Months 14-18	CSW, MSU, LCC, Steering Committee	Several forums will be held throughout the region for stakeholders from business and education. Web sites, wikis and blogs documenting the process will be made public.
<b>Evaluate the Project Model and Outcomes</b> to refine the process model and prepare for the next project phase. Ongoing evaluation reports from each activity. Data will be reviewed by all project participants.	Months 1 – 18	SAMPI, MSU, LCC, CSW, Steering Committee	Evaluation reports for each activity. Final evaluation report. Evaluation plan for full Transformation (T) proposal.
<b>Develop a CPATH Transformation (T) Proposal for Full Implementation</b> of the process and curricular reform. This process will include recruiting a wider range of stakeholders as indicated in the Transformation Model to participate in the grant preparation.	Months 18-24	MSU, CSW, LCC, Steering Committee, SAMPI, additional stakeholders from K-12 and government	Additional participants recruited.  Submit a proposal for an NSF CPATH Transformation (T) grant