

Project Description

With support from the National Science Foundation (NSF), the American Society for Engineering Education (ASEE) and Arizona State University are developing a sustainable virtual community of practice (VCP) model for faculty development. The VCP approach builds on the existing face-to-face faculty development models, on the engaging community of practice models, and on the rapidly developing and increasingly accepted web-based social networking and content management tools. By engaging in this project, participant faculty members gain a deeper understanding of research-based instructional approaches and begin to implement these approaches in their classrooms.

Data Collection

Description	Type	Recipients	Time
VCP/RBE Survey (Assesses participants' attitudes, awareness and use of Research Based Education)	Survey	FVCP participants	Pre-baseline Mid-way End of cycle
Participant Satisfaction Survey	Survey	FVCP participants	Mid-way End of the cycle
Meeting Minutes	Digital recording from Portal	NA	On-going
Attendance Sheets	Record from VCP Portal	NA	On-going
Plans Developed by VCP leaders	Artifact	NA	End of LVCP
Interviews	Interview	LVCP and FVCP participants	Ad hoc
Participant Syllabus	Artifact	FVCP participants	Pre-baseline End of the cycle

ASEE AMERICAN SOCIETY FOR ENGINEERING EDUCATION

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For more information visit:

www.asee.org/asee-vcp

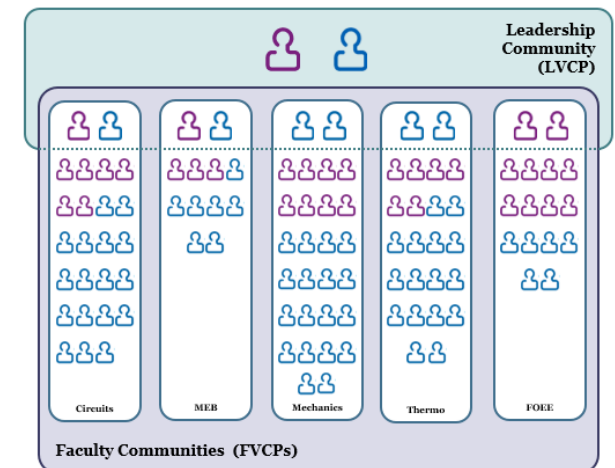


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Advancing Engineering Education through Virtual Communities of Practice



Explore research-based instructional approaches while networking with peers



What do the VCP members think?

“When I tell people about this group, I call it my Mass and Energy Balances support group. It’s nice for me, in particular, to talk to other people who teach this course and know some of the problems associated with it, and to talk about what people have done.” –**Mass and Energy Balance Group Participant**

“My university is small, and I’m the only one currently teaching those courses. I felt like the community gave me a set of people that I felt comfortable to contact with questions related to my field of teaching.” –**Thermodynamics Group Participant**

“The benefit of online weekly meetings has been that we were in class, dealing with our students, and then we meet, and all of us can bring back the experiences that we have in class to our online meeting and share those.” –**Thermodynamics Group Participant**

“I was surprised to learn there was somebody on my own campus who was about to retire, was in one of these (VCPs). He was still enthused about learning new techniques and new ideas and stuff, it was really great.” –**VCP leader**

Geographic Distribution of VCP Faculty Members – Cycle I (Spring-Fall 2013)



The Virtual Communities of Practice project includes over 175 faculty members from more than 125 institutions across the country. Participants sustain dynamic, continuous, and meaningful interactions with their peers. The VCP faculty members cooperate to determine individual plans for implementing research-based education in their classrooms. Shared and novel classroom experiences are examined through virtual collaboration among members from multiple institutions, providing a diverse support network of engineering educators.

Virtual communities shared practice revolve around the following areas/courses:

Cycle I (Spring–Fall 2013)		Cycle II (Fall 2013–Spring 2014)	
Electric Circuits	(23 participants)	Chemical Engineering	(15 participants)
Mass & Energy Balance	(11 participants)	Civil Engineering	(20 participants)
Mechanics	(26 participants)	Computer Engineering	(24 participants)
Thermodynamics	(23 participants)	Electrical Engineering	(13 participants)
		Mechanical Engineering	(21 participants)