# SYSTEMS EDUCATION FOR ALL ENGINEERS

#### ASEE 2015 WORKSHOPS SEATTLE, WA JUNE 14, 2015

Seating limited, tickets required, please register early\*

## INTEGRATING SYSTEMS COMPETENCIES INTO THE CURRICULUM OF ANY ENGINEERING DISCIPLINE U213C, 9AM-NOON, WSCC ROOM 602

This is a hands-on workshop to review how we expose engineering students to systems competencies such as these to enable them to achieve a higher level of technical competence within their discipline:

- 1. Describing the target of innovation as an interconnection of subsystems but also in terms of the target's interaction with the larger system that surrounds it;
- 2. Applying a system stakeholder view of value, trade-offs, and optimization;
- 3. Understanding system's interactions and states (modes);
- 4. Specifying system technical requirements;
- 5. Creating and analyzing high level design;
- 6. Assessing solution feasibility, consistency, and completeness; and
- 7. Performing system failure mode and risk analysis.

## GROUPLUNCH

## INTEGRATING SYSTEMS ENGINEERING INTO ENGINEERING EDUCATION

### U448, 1PM - 4PM, WSCC ROOM 603

This workshop reports on and extends work from the May International Council on Systems Engineering (INCOSE) Spring Academic Forum that considers:

- How can we better describe the value of systems knowledge in engineering education, for students, employers and educators?
- What is the best way to build on existing successes to create useful materials, products and recommendations to help deliver this value?

• Is the Systems Engineering knowledge base sufficient to support these outputs? Recommendations, curriculum artifacts, best practices, lessons learned, and ongoing work will be presented and built upon during this workshop.

\*Register for both <sup>1</sup>/<sub>2</sub> day workshops as part of ASEE 2015 conference registration. Free ticket with registration: http://www.asee.org/conferences-and-events/conferences/annual-conference