**Integrating Transdisciplinary Perspectives on Grand Challenges into Course Activities – Sarah Brownell (Grand Challenges Scholars Program, Engineering Leadership, KGCOE)**

The challenges we face as a nation and as global community—whether we call them “Grand Challenges for Engineering” or “Sustainable Development Goals” or something else—do not fit neatly into disciplinary boxes. Students who hope to address these challenges after graduation need to be prepared to grapple with the complexity that surrounds them. How might their courses help them get ready?

If you are interested in adding a little bit of content around the “grand challenges” to your courses and would like to work with faculty from another discipline to explore a topic from varied perspectives, this learning circle is for you! Join with a partner from another discipline that shares a common interest or join on your own and we will match-make to explore possibilities.

As an engineering faculty member working with faculty from liberal arts, I have had very positive and fun experiences, learned a lot about the other disciplines I work with, and gained confidence in bringing up non-technical issues in my own engineering courses. I hope this learning circle will provide a low-key, low-stakes opportunity for faculty collaborations to form and perhaps, over time, grow.

We will plan to meet once monthly for 1 hour throughout the spring semester (time will be determined by a poll). The goal will be to work in pairs (or trios…) develop a course activity (ie. a role play, case study, problem solving activity, creative assignment, written response, lecture, homework problem, etc. that integrates different perspectives around an important challenge (you can define the challenge!)

To get you started thinking, here are some examples from previous collaborations:

* Provide Access to Clean Water – Students review articles from various sources on the Flint Water Crisis, exploring the intersection of policy, law, ethics, and the capabilities of the existing water infrastructure and water testing methods/rules. (From my collaboration with Wade Robison in Philosophy.)
* Advance Personalized Learning – Students use SWOT analysis to evaluate the product design process and implementation of the One Laptop Per Child Project of the MIT Media Lab and then compare their predictions to what actually happened. (From my collaboration with Ann Howard in Science Technology and Society.)

If you would like to join this synchronous (online?) circle email Sarah Brownell ([sabeie@rit.edu](mailto:sabeie@rit.edu)).