

**BSGE Advisory Board Meeting Fall 2017****September 27, 2017 11:00 am Eastern**

Dr. John Gierke, Chair, Geological and Mining Engineering and Sciences

Dr. Thomas Oommen, Chair, Geological Engineering Curriculum Committee

**Connecting Online:** Shannon Lemke, Andy Smits, Bill Griffin, and Ray Wuolo**AGENDA**

- Introduction
- Discussion of educational objectives and comparison with other institutions
  - We went through PEOs for the MTU BSGE and compared to other programs available online (CSM, SDSM&T, UoWisc)
  - The Board felt that our published PEOs both reflect their perceptions of our program and are appropriate for today's industries where GEs work.
  - SL suggested adding a new PEO or to an existing one: "Service to others and 'something' related to benefiting society. JSG & TO will explore incorporating it into an existing PEO.
- Discussion of student outcomes and comparison with other institutions
  - The program focuses on the a-through-k, much like other programs. CSM includes a few other general outcomes.
  - SL suggested adding "Field Competence" and "Critical Thinking Skills" to our existing a-through-k. Gierke welcomed this, as we are confident in the field competence in the program, especially considering the field classes. Likewise, our field classes and upper division classes all involve substantial critical thinking aspects. The challenge will be how to assess. We decided to discuss this further on for the next meeting (TBA).
- Discussion on senior design project and evaluation
  - One senior design project (Geotech: Enguri Dam Hazards) was shared with the advisory board via the shared Google Drive along with an assessment form. The other senior design projects all involve NDAs

and so were not shared at this time. Being the first time having the advisory board attempt to review a project for us, we thought we would provide one, along with a rubric, and then adapt as needed for the future.

- o SL reviewed the design project and was impressed with all aspects. Other members did not provide a written evaluation but all seemed impressed with the quality and thoroughness. How to provide this in a way that will yield more participation will be a challenge.

#### The Advisory Board:

1. Shannon Lemke, Senior Geologist at Vitruvian Exploration LLC.
2. Patricia M. Bryan, President/Principal Geologist at Bryan Environmental Consultants, Inc.
3. Kevin Richards, Engineer, U.S. Army Corps of Engineers
4. Andy Smits, Engineering Manager, Inland Seas Engineering Inc.
5. Bill Griffin, Principal, U.P. Engineers & Architects Inc.
6. Ray Wuolo, Hydrogeologist, Barr Engineering.
7. One vacant (to be filled with someone who has petroleum background)