

**Engineering Technology Advisory
Committee Minutes
October 4, 2018**

PRESENT: Tyler Paul, Kevin Martin, Cleary Johs, Tyler Wollmuth, Jasper Klein, Jennifer Malloy, Chad Cowley, Tim Langerud,

ABSENT: Jayme Engen

GUEST: Dennis Kemmesat (Frontier Precision)

INSTRUCTORS PRESENT: David Sagsveen, Aaron Hummert (Adjunct), Bob Kohler (Adjunct), Liz Braunagel (Dept. Chair), Dr. Amy Juhala (Dean)

Meeting began around noon. Discussion started with introductions.

Discussion continued with a brief presentation by Dr. Juhala regarding a career explorer program event scheduled for June 3 to June 6 at BSC. Opportunities for industry sponsorships are available for this 3.5 day event. Attendees of the program will be high school teachers and counselors who will (hopefully) take what they've learned about programs and careers and encourage their students to attend BSC. The sponsorships available will be to host a meal and to give industry presentations to the program attendees. Dr. Juhala will be back in the spring to discuss further.

Discussion started with an update on the Frontier Precision equipment partnership. As discussed last spring, Frontier Precision will be supplying new equipment yearly to the surveying lab. Equipment will come from their rental pool and will be the latest GNSS equipment and data collectors. Dennis Kemmesat, CEO of Frontier Precision, gave an update at the meeting regarding the partnership. *(Update: The equipment arrived for the year and students began using this fall. We are looking forward to really getting into it this spring - DJS)*

Discussion continued with the final update on the program trailer. The trailer wrap with BSC and sponsor logos is finished. Carts have not yet been completed for hauling surveying equipment around, but hopefully that will be completed soon so the surveying lab can be mobile.

Discussion continued with an ABET update. The Engineering Technology program made it through the final steps of review and has been granted full ETAC Accreditation until 9/30/22. The next self-study will be required to be completed by 7/1/21. Dave also introduced the idea of a program change (one that would include surveying in the title), should we be interested in it. Any program name changes would need to be approved by the NDUS and would likely need to be approved by NDSCS, as they have land surveying and civil engineering technology in their title. No action taken item.

Discussion continued with an updated on the open Engineering professor position. The position became available in April but BSC has been unable to fill the position up until this point. Dave has

been filling in this semester on some of the engineering courses and Mark Steele has taken on another. We are hoping to have the position filled by next semester.

(Update: Jennifer Kessler has been rehired to fill this position and will start in January – DJS)

Discussion continued with discussion on the NDSPLS conference. Most agreed it would be good to have BSC students attend the conference this spring. Dave and Bob will coordinate and work with the NDSPLS regarding available funds for student attendance / travel / hotel rooms.

Discussion continued with a discussion on curriculum review. At the spring advisory meeting, Dave handed out the BSC curriculum along with other curricula from NDSCS, Detroit Lakes Tech (MnState), Southeast Tech (Sioux Falls) and Flathead Valley Community College (Montana). At the time, the committee's "homework" was to review the curricula prior to our next meeting; any proposed changes to the BSC curriculum would need to be done by October 15 to be reviewed and incorporated into the degree plan for the following fall. Dave discussed proposed ETAC criteria for ABET and any changes that would impact the curriculum; no proposed changes have significant impact at this time. Additionally, as long as we have ABET status, we would need to have 1/3 general education and 2/3 technical credits. During the discussion, it was agreed that POLS 116: State and Local Government (3 cr) and SOC 110: Introduction to Sociology (3 cr) could be replaced provided we found an agreeable substitution with a diversity component (ABET requirement). Dr. Juhala introduced the idea of using SOC 235: Cultural Diversity (3 cr) *(Update: See below)*. In addition to these changes, the idea of adding a "business, planning, zoning, and subdivision" course to the curriculum to help students learn how to navigate the codes and paperwork elements they might encounter in their career. Intro to Business was also discussed as a possibility, as was a spreadsheets course following the input from recent graduates.

(Update: Following the meeting, Dave received further input from those who attended the meeting and from other instructors on campus. Ultimately it was decided to add a psychology course to replace SOC 110; the new course, PSYC 110: Human Relations in Organizations, will be used to satisfy the diversity element required by ABET and will also include elements relating to organization structures and teamwork. Additionally, 2 new courses were added: Introduction to Planning and Development (2 cr) and Spreadsheets for Engineering Technology and Surveying (1 cr). The first course will be developed to include the "codes and paperwork" items discussed at the meeting; the second course will be developed to introduce and apply Microsoft Excel fundamentals, techniques, formulas, and formatting required to create spreadsheets the students will likely encounter in their careers. Incorporating these courses at 2 cr and 1 cr respectively will keep our required ABET percentages and keep our program total credit load at 69 credits with a max. semester load is 19 cr).

Discussion concluded with discussions regarding certifications. Options discussed included UAS certifications, OSHA and/or MSHA certifications. Dave will look into the possibility of incorporating the ND Safety Council courses into the BSC CT courses.

Submitted by,
David Sagsveen

Thank you for your continued support of the Engineering Technology Program. If there appears to be any errors or missing items in the minutes, please contact David Sagsveen at 224-5443 or David.Sagsveen@bismarckstate.edu.