

Thoughts on Professional Practice and Education

Article 10: Professional Partnering with Surveying Programs

by Knud E. Hermansen[†]

P.L.S., P.E., Ph.D., Esq.

This is the tenth article I have prepared in the series offering thoughts on professional practice and education. In this article I advocate for a close partnership between professional members and the regional or state surveying programs.

In preparing this article, I draw on over thirty years of teaching in surveying studies. I have taught courses at Penn State University, University of Maine, Florida Atlantic University, and Florida State University. Each is different. All have strengths and weaknesses. With more than fifty years of practice, I have been a member of several state professional societies and national professional societies. I have maintained active professional consultation throughout my careers as an educator and military member.

I begin with the premise that I believe a surveying program should be a professional program. By professional program I mean a program that offers a focused education providing graduates with skills that are both practical and applicable - a program that pointedly leads to a career as a licensed professional. Examples of other professional programs at the bachelor of science degree level include nursing, accounting, and engineering.

I believe the focus of a survey program is to provide skilled graduates able and willing to enter the profession of surveying and take on typical surveying services soon after graduation. I strongly believe the graduate of a surveying program should be knowledgeable enough to begin practicing with competency in the profession of surveying upon graduation. The graduate should have the skill set to provide an employer with knowledge and efforts that will be profitable for the employer's business.

In previous articles, I have spoken about faculty qualifications so I will not speak in depth on that topic in this article. Suffice to say that knowledgeable, experienced, and qualified faculty are not always able to stay abreast of what an employer would prefer that a graduate should know and possess. Many faculty lack practical knowledge while often exceling in research knowledge. Yet, it is the practical knowledge that is much more important to the employer than cutting edge research knowledge. The reason for this disparity in faculty focus is not necessarily the faculty member's fault. University administrators are apt to focus their attention and efforts on increasing the money flowing into the university rather than upgrading the knowledge of graduates leaving the university. For state institutions, much emphasis is placed on obtaining research grants. Faculty promotion and tenure is often tied to research dollars. Hence, faculty focus their efforts on research rather than practice.

In order that students be taught practical and applicable knowledge, there should be a consistent and constant assessment of program courses, course

content, and suggested course requirements. This assessment should be done by knowledgeable practitioners of the surveying profession. For ABET accredited programs, this is often done by an advisory committee mandated by ABET continuous assessment requirements.

Participation in this advisory committee is usually done by invitation of the program faculty. I will suggest that faculty invitations are not always sent to practitioners best able to assess or improve the program content for practical, relevance, and current knowledge. Many are the committees I have seen that seem to be composed of mostly alumni and retired faculty from the program. This makeup of an advisory committee is like asking grandparents, cousins, nieces, and nephews to look for faults in the family tree that are to be made public.

In my experience an advisory committee composed of practical and knowledge members usually provides a great deal of good, practical advice with the added bonus the members can be strong outside advocates of the surveying program when the program seeks donations or is thwarting attempts by the university administration to eliminate or modify the program into something useful for the administration but not necessarily for the program, the profession, or the employer of the graduate from the program.

A second method of assuring relevant and practical education of the surveying student is to assess and improve the success rate of students and graduates that take the fundamentals of surveying exam. I believe NCEES does a credible job of keeping the contents of the exam consistent with current practice due in large part by relying on licensing board members and professional input. However, if a program does not require students take the fundamentals of survey exam or use the exam scores for program assessment, this valuable source of assessment is wasted.

A much less effective manner of assuring relevant and practical education of the surveying graduate is through ABET program accreditation. By not fully lauding and embracing this avenue, I do not wish to discourage a program from seeking and obtaining accreditation or disparage ABET accreditation. The program content guidance available under common disciplines listed within ABET looks at a macro view of the surveying studies rather than focus on a micro view of professional needs. As an aside, I am not going to argue or encourage ABET take on a micro view by discipline.

Rather, I wish to make a point that ABET accreditation does not assure the program contents of an ABET accredited program are necessarily offering a relevant and practical education sought by the typical employer within the profession. The criteria that ABET accredited programs undergo continuous improvement and periodic assessment, often with the aid of an advisory committee, can help considerably with relevant and current knowledge if the assessment is taken seriously and aid sought from the profession through

advisory committee members. I hope to write more about the benefits and limitations of ABET accreditation in another article.

Having given my opinion, I now offer advice by suggesting that yearly evaluation of program courses and course content be done by a committee composed of members of the profession. The committee should take on the role of friendly guidance – much like the bride’s mother for her daughter’s wedding. Then again, I may have used the wrong example given stories I have heard about the weddings of others where mothers went way beyond friendly guidance. I shall refine my parallel by adding so long as the bride’s mother is not allowed to take over the planning of the wedding itself.

Let me give some advice in detail. I think a committee is best composed of at least one active member of the state surveying profession that is supporting the program such as the immediate past president of the state society. If the surveying program is a regional program, a member from each state should be sought. Another member should be a current licensed member of the state surveyor licensing board.

All other members of the advisory committee should be employers or likely employers of the graduates from the program. Large multi-disciplinary firms and small firms should be well represented. Public and private sector employers should be represented as well. Donors or potential donors to the program should be welcomed as members. Someone that is willing to back their advice with donations are to be actively sought. For example, including a member that is an equipment supplier that generously donates up-to-date equipment to the program would be wise.

Some may fault the perception I have just ‘painted’ that membership on the committee can be bought. I would wink and nod while countering with a Jewish saying that: *“Life's not as good with money as it is bad without it.”* Let me state the intention of this Jewish saying in other terms, *“A program that brings money to the university is less likely to be eliminated than a program that costs the university money.”*

† Other books and articles by Knud can be found at <https://umaine.edu/svt/faculty/hermansen-articles/>