Liberal arts a benefit to graduates with technical skills

WMU president says employers are looking for well-rounded individuals.

By Rachel Weick
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Although higher academic institutions are under pressure to produce students proficient in STEM occupations, graduates still can benefit from a broader liberal arts education blended with technical learning.

Occupations that require knowledge of science, technology, engineering and mathematics are some of the fastest growing throughout the country — projected to grow by 17 percent from 2008 to 2018, according to the United States Department of Commerce, Economics and Statistics Administration.

In West Michigan, computer and mathematical employment is anticipated to have the second-highest growth rate — 19 percent — through 2020, according to the West Michigan Talent Assessment and Outlook: Supply and Demand Analysis and Insights report released by Talent 2025.

With a regional focus on growing the talent pipeline within the technical disciplines, there is increasing collaboration among the business community, workforce solution agencies and higher education to address the gaps in West Michigan talent development. One of the issues currently being tackled involves teaching students technical skills blended with a traditional liberal arts education.

John Dunn, president of Western Michigan University, said the issue of liberal arts versus technical disciplines is important.

“As a comprehensive research university, we have always had a strong commitment that all of our students, regardless of their area of study, should have a strong background in liberal arts, the humanities and the social sciences,” said Dunn.

“I don’t think there is any substantive change there, and the reason for that is really directly in response to almost every employer survey I have looked at (which) still continues to take the position that they want to hire people who have a broad set of skills and are in fact able to communicate, write well, to analyze data and to be critical thinkers.”

The Association of American Colleges and Universities released an employer survey in January 2010 conducted by Hart Research Associates that examined the perspective on college learning in the wake of the
economic downturn. Of the 302 owners, CEOs, presidents and C-suite level executives interviewed, 89 percent believed colleges should place a greater emphasis on oral and written communication skills.

Other intellectual and interpersonal skills highlighted included: the ability to locate, organize and evaluate information from multiple sources; to work with numbers and understand statistics; to innovate and be creative; and to connect choices and actions to ethical decisions.

"The technical disciplines, or what some would call the professional programs, are extremely important and do a great job, and we do a very good job here," said Dunn. "In addition to that, we know that engineers, we know that scientists need to have an ability to interact, connect and communicate with others, and those skills are nicely developed and appropriately developed in our courses in humanities, the social sciences and the arts."

Rather than deliberate about learning technical skills versus liberal arts, Dunn said, what's important is to produce a high-quality individual who can respond to the needs of the markets and has the ability to adapt and adjust. A graduate with a technical background may start out as an engineer but could be asked to fill a management role or human resources role later in their career and will need to draw on a broad base of education to do so.

"I think today's young people don't seem to be as focused in a definitive way that this is what they are going to be for the rest of their life, or this is the job they are going to have for the rest of their life," said Dunn.

"They are going to continue to expand, continue to look around, and maybe not be hesitant to make a shift — or two or three or four — in terms of their career aspirations."

To adapt to those changes, Dunn said it is important to have a strong, broad-based education, and credible employer surveys highlight the importance of critical thinking, analytical, communication and problem-solving skills.

The West Michigan Talent Assessment and Outlook, released in December 2014, indicated despite the 24 percent forecast growth rate for health care support occupations, 19 percent growth for computer and mathematical jobs and a 13 percent increase in architecture and engineering positions, the top skills forecast through 2020 include active listening, communication, critical thinking and reading comprehension.

"You want to make sure, as your students graduate, to serve them well — that they have a broad range of skills that can be adapted, adjusted and applied to a variety of settings," said Dunn.

Although students pursuing a technical program such as aviation maintenance technology, aerospace engineering or mathematics have some liberty in selecting which liberal arts courses they will take, WMU expects its graduates to have a basic understanding of English grammar, creative writing and technical writing.

"There is the understanding that those students blend those to best fit into their particular career path, but nevertheless, within each of those courses ... there is a high degree of reliance on how do you present a thought, how do you analyze data, and how presentable and readable is anything you present in terms of understandability," said Dunn. "I think we do that really well."

Dunn said the WMU faculty senate and curriculum committee is involved in examining the baccalaureate
core and general education requirements to make sure they adapt to current thinking.

“The goal there is always the question of, is there a way for us to do this better? Are we as current in respect to the thinking of the time as we ought to be, and if not, let’s not be resistant or afraid of change,” said Dunn. “It doesn’t mean what we have done in the past is bad; it just means we know more today and we have more information to make things happen.”

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