September 27, 2010

Dr. Tim Gallimore
Assistant Commissioner, Academic Affairs
Missouri Department of Higher Education
3515 Amazonas Drive
Jefferson City, MO 65109

Dear Dr. Gallimore:

Missouri University of Science and Technology (Missouri S&T) is a land- and space-grant institution and a technological research university with a focused mission that directly supports Missouri’s economic development, energy production, and environmental strategies. Missouri S&T’s degree programs have and will continue to be vital to Missouri’s future. The mission of Missouri University of Science and Technology is “[to] integrate education and research to create and convey knowledge to solve problems for our State and the technological world.” The mission statement was adopted by the University of Missouri Board of Curators in January, 2008.

Missouri University of Science and Technology is one of 16 technological research universities in the United States. A technological research university is defined as a university with 25% or more of its enrollment in engineering and 50% or more of its enrollment in engineering, science, math, and business. The university’s vision is to “be recognized as one of the top five technological research universities in the nation.” Based on ten criteria that include measuring the quality of students, the quality of education delivered, faculty research and scholarship, and alumni success, Missouri S&T achieved the #5 ranking among its technological research university peers in 2009 and is ranked behind only California Institute of Technology, Massachusetts Institute of Technology, Rensselaer Polytechnic Institute, and Georgia Technological Institute. Said differently, Missouri S&T is this country’s second-ranked public technological research university. The university is pursuing its vision of being even more widely recognized as a top five technological research university while successfully executing its mission.

Among universities offering engineering degree programs, Missouri S&T offers more ABET-accredited baccalaureate engineering degree programs (16) than all other U.S. universities except Pennsylvania State University and North Carolina State University. Missouri S&T is the only graduate degree-granting research university that has over 90% of its student body majoring in engineering, the sciences, and mathematics. It is the only university in the U.S. to offer the critical combination of environmental engineering, geological engineering, geology and geophysics, mining engineering, nuclear engineering, and petroleum engineering—all disciplines extremely critical to providing enabling technology supporting the economic well-being, energy production, and the environmental health of Missouri and the U.S. One way to validate the quality and value of S&T graduates is to note that Missouri S&T’s career fairs continually attract more companies seeking to employ S&T graduates than nearly every other university’s career fair. Another way of validating the quality and value of S&T graduates is to note that the Payscale national survey showed that among new baccalaureate graduates, Missouri S&T graduates ranked 3rd in the Midwest with an average starting salary of more than $57,000.
Missouri S&T subscribes to the concept of continuous improvement and practices this concept through pursuit of its strategic plan and its management actions. An example of its attention to efficient management is its elimination in 2007 of all colleges, schools, and the deans associated with these organizational layers of management. The university has also combined several smaller departments into more efficient, larger departments to share the delivery of courses and administrative functions: Geological Sciences and Engineering (baccalaureate and graduate degrees in Geology and Geophysics, Geological Engineering, and Petroleum Engineering); Mining and Nuclear Engineering (baccalaureate and graduate degrees in Mining Engineering and Nuclear Engineering), Materials Science and Engineering (baccalaureate and graduate degrees in Ceramics Engineering and Metallurgical Engineering), Mechanical and Aerospace Engineering (baccalaureate and graduate degrees in Aerospace and Mechanical Engineering), and Business and Information Technology (BS and MBA in Business Administration and baccalaureate and graduate in Information Science and Technology).

Through the continuous improvement process, one department and its degree program were eliminated in 2009 (Interdisciplinary Engineering). Since 2006, Missouri S&T has terminated one doctoral degree program (PhD in Engineering Mechanics), seven master's degree programs or option areas (Biomaterials; Engineering Mechanics, Numerical Analysis, Information Systems, in Computer Systems and Language, in Operations Research, and in Computer Organization), and six baccalaureate degree programs [Chemistry (non-certified); Interdisciplinary Engineering; in Energy Industry Management; in Information Technology; in Reservoir Characterization; and in Sports Psychology]. Additionally, Missouri S&T has eliminated a total of 340 courses since 2007.

Missouri S&T also has additional departments that offer multiple disciplinary degrees: Electrical and Computer Engineering; Civil, Architectural, and Environmental Engineering, Engineering Management and Systems Engineering; English and Technical Communication, and Mathematics and Statistics. An important characteristic of our departments with combined names is that many of the faculty whose specialty area is in one of the department's multiple disciplines also teach required and elective common courses in the department's other discipline(s). This "cross teaching" and interdisciplinary research is critical to the disciplines involved and occurs at both the baccalaureate and graduate levels. This is particularly true in the disciplines of electrical and computer engineering, mechanical and aerospace engineering, ceramic and metallurgical engineering, civil and environmental engineering, and mathematics and statistics.

As you can readily tell from the actions cited above, Missouri S&T is regularly and actively involved in program review. External accreditation reviews include departments that directly support the accredited degree programs. Finally, as a land- and space-grant institution and a technological research university with a focused mission that directly supports Missouri's economic development, energy production, and environmental strategies, Missouri S&T's degree programs have and will continue to be vital to Missouri's future.

Sincerely,

Warren K. Wray, Ph.D., P.E.
Provost and Executive Vice Chancellor
For Academic Affairs

Encl: Summary of Campus Program Review

xc: Dr. Stephen Graham, Sr. Assoc V.P. for Acad. Affairs, Univ. of Missouri