



Mission and Goals of the Program

We take the land-grant mission of service to the state seriously. The mission of the Department of Civil and Architectural Engineering and Construction Management at the University of Wyoming is:

- ➤ To educate and prepare Civil and Architectural Engineering and Construction Management students to lead as designers, builders, project managers and entrepreneurs as it relates to the sustainable built and natural environments.
- ➤ To develop technical solutions through research, innovation, and improved infrastructure to diversify and grow the economies that serve Wyoming and the world.

In support of this mission we are pursuing the following objectives:

- 1. Enhance the Civil and Architectural Engineering ABET-accredited undergraduate programs and develop an ACCE- Accredited Construction Management program.
- 2. Promote innovative teaching and learning methods.
- 3. Recruit and retain outstanding faculty and staff.
- 4. Increase the number of highly-productive MS and PhD graduates in the Civil and Architectural Engineering programs. In the future, pursue a graduate program in Construction Management.
- 5. Sustain and enhance extension and outreach activities.
- 6. Involve professionals in our hands-on teaching, research, and workforce development activities.
- 7. Increase capacity to develop technical solutions to support infrastructure, industry, and individuals.
- 8. Foster diversity within all of our programs.

Specific Construction Management Knowledge and Skills, are based on the American Council of Construction Education (ACCE) Student Learning Outcomes (SLO's), where a student upon graduation from the program will be able to:





- 1. Create written communications appropriate to the construction discipline
- 2. Create oral presentations appropriate to the construction discipline
- 3. Create a construction project safety plan
- 4. Create construction project cost estimates
- 5. Create construction project schedules
- 6. Analyze professional decisions based on ethical principles
- 7. Analyze construction documents for planning and management of construction processes
- 8. Analyze methods, materials, and equipment used to construct projects
- 9. Apply construction management skills as a member of a multidisciplinary team
- 10. Apply electronic-based technology to manage the construction process
- 11. Apply basic surveying techniques for construction layout and control
- 12. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process
- 13. Understand construction risk management
- 14. Understand construction accounting and cost control
- 15. Understand construction quality assurance and control
- 16. Understand construction project control processes
- 17. Understand the legal implications of contract, common, and regulatory law to manage a construction project
- 18. Understand the basic principles of sustainable construction
- 19. Understand the basic principles of structural behavior
- 20. Understand the basic principles of mechanical, electrical and piping systems