

Course Information

CM 710 Advanced Construction Management

Instructor: Scott J. Amos, PhD, PE, CPC
Office: CM 123
Phone: 394-1694
Email: Scott.Amos@sdsmt.edu

Description: This course addresses the advanced study and application of lean project delivery in the modern construction environment. Topics may include: productivity improvement strategies; the use of information technology and Building Information Modeling (BIM) for estimating, scheduling and project control; and the human element in relation to motivation, safety, and environmental stresses.

Objectives: After completing this course, you should be able to:

- Identify the early indicators of transition within the construction industry.
- Explain how productivity is defined, why the construction industry has had small increases in productivity, why a small increase in productivity can yield significant benefits, and different approaches to improving productivity.
- Explain the concept of constructability as a critical issue for securing efficiency during construction.
- Assess the impact of simulation and its use in modeling construction production systems.
- Explain how core competencies depend on the personal and continued initiative of the individual.
- Describe current thinking around the competencies successful workers and managers need to develop.
- Evaluate the impact of motivation, physical and emotional strain on productivity.
- Compare the strengths and weaknesses of various communication media.
- Develop a construction productivity improvement and procedures manual.

Prerequisite: CM prerequisites are graduate standing or permission of instructor. The ability developed through undergraduate training to analyze cases, think critically, and express yourself in writing.

Text: Bernhold, L., AbouRizk, S. *Managing Performance in Construction*. Hoboken, NJ: John Wiley & Sons, Inc. 2010

Note: Text is subject to change as new texts and/or versions become available.

Course Site:	https://d2l.sdbor.edu/ All course materials, schedules, learning objectives, assignments, and supplementary materials are posted to a D2L course site that is accessible to enrolled students beginning the first day of the semester.
Topical Coverage:	<ol style="list-style-type: none"> 1. Indicators of an industry in transition 2. Productivity 3. Efficient site operations 4. Simulation and modeling of production systems 5. Competencies that drive the company 6. Productivity in a healthy and safe work environment 7. Human motivation 8. Leaders and teams 9. Communication 10. Performance management
Onsite or Distance?	All CM course offerings serve both onsite and distance learners simultaneously in a common section (M840T).
Course Delivery:	This course will be delivered in the HyFlex format. HyFlex represents an approach to creating and managing blended courses that provides students even greater choices when trying to manage their time. Hyflex, (Hybrid/Flexible), allows a student to choose whether they will attend a face-to-face class, or complete the required work online for any particular class date. Hybrid – combines both online and face-to-face teaching and learning activities. Flexible – students may choose whether or not to attend face-to-face sessions ... with no “learning deficit.”