

**Western Dakota Technical Institute  
800 Mickelson Drive  
Rapid City, SD 57703-4018**

**Master Syllabus**

**Course Number:** CAD 255  
**Course Name:** Introduction to 3D CAD  
**Credits:** 3  
**Contact Hours:** 1 Lecture; 4 Lab

**Course Description:** This course introduces industry standard 3D CAD applications in both the architectural and mechanical fields. The architectural portion of the course covers the basics of parametric modeling with BIM (Building Information Modeling) software. The mechanical portion of the course covers the basics of parametric 3D modeling including the concepts of parts, assemblies, and drawings.

**Textbooks:** <http://bookstore.wdt.edu>

**Materials:** Notebook and/or note paper, drafting scales (Arch.& Eng.), storage media for backing up electronic working files, and folder for handouts.

**Student Learning Outcomes:**

- Identify basic Building Information Modeling (BIM) concepts and procedures
- Generate views including plans, elevations and sections based on BIM
- Generate parametric solid models and drawings
- Simulate a mechanical device by joining part models in an assembly

**Assessment:** Students' communication skills, analytical skills, technology skills, teamwork techniques, and employability will be assessed throughout this course.

**ADA Accommodations:** Students Rights to Assistance or Accommodations: If you have a documented disability for which you are or may be requesting accommodations, you should contact your instructor and the Disability Coordinator as early as possible in the semester.

**Notice of Non-Discrimination:** Western Dakota Technical Institute does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Disability Coordinator.