

# Curriculum Guide CAD II

## Sequoia Union High School District

**Course:** CAD II (Computer Aided Design)

**Description:**

Further development of CAD and manual drafting skills through exposure to direct applications in the areas of engineering, architecture, electronics, and mechanical fields. Students are required to submit individual projects that demonstrate the skills learned in class. Advanced 2D drawing skills as well as 3D drawing skills are presented. This course is designed for students interested in engineering, architectural or technical fields. Students who complete both courses (I & II) may receive community college credit for the course as part of the Tech Prep Program.

**Prior Learnings/Prerequisites:**

Completion Computer Aided Drafting (CAD)/Technical Drawing I with a grade of C or better.

**Grade Level:** 10-12

**Length of Course:** 1 Year

**Units:** 10

**Meets Requirements for:**

- Practical Arts
- Tech Prep Program
- SUHSD Technology Graduation Requirement

<b>Content Standards and Benchmarks</b>	<b>Teaching Strategies, Materials, Assessment</b>
<p>NETS 1, 2, 3, 4, 5, 6</p> <p>Business Education</p> <ul style="list-style-type: none"> <li>▪ 1.6 (Information Technologies)</li> <li>▪ 1.3.1, 1.3.3, 1.3.4 (Career Preparation)</li> <li>▪ 1.5.1, 1.5.2, 1.5.3, 1.5.4, 1.5.5, 1.5.6, 1.5.7, 1.5.8 (Employability Skills)</li> </ul> <p>Information Technology Industry Sector</p> <ul style="list-style-type: none"> <li>▪ I (a)(b)(c)(d)(e)(f)(g)(i)</li> <li>▪ III (c)(e)(f)(g)(h)(j)(k)(l)(n)(p)</li> <li>▪ V(e)</li> </ul>	<p>This is a hands-on course, where most of the time students perform tasks on a computer. The teacher demonstrates and models appropriate computer and software use and students demonstrate that use via various exercises out of the texts, materials created by the teacher, and materials available through the Internet. Through the Windows operating system, students create and organize folders. Students log into the classroom network, retrieve and save documents to network folders, and attach documents to e-mail. Students also print CAD documents that are displayed in the classroom and shared among students.</p> <p>Multiple-choice, short-answer questions, projects and authentic-assessment are utilized.</p>

**SUHSD Course (cont.): CAD II**

<p><b>Core Textbooks and Instructional Material</b></p> <p><i>Textbook:</i> AutoCAD LT 2002 Fundamentals and Applications by Saufleu/Schreiner</p> <p><i>Software:</i> AutoCAD LT 2002 by AutoDESK and ArchiCAD 7.0</p>	<p><b>Prevention, Intervention and Extension Strategies</b></p> <p>(Include strategies to address students in ESL, GATE, Special Ed., etc. How is instruction individualized?)</p> <p>The goal and expectation is for all students to succeed. Material is presented in several ways to facilitate effective learning: textbooks and written materials are provided; step-by-step visual handouts are provided; teacher-led instruction is provided, using the LCD projector or Vision system; individual instruction is provided; and hands-on learning is available every day. ESL: Some directions and exercises are available in Spanish. Student translators help explain strategies and directions when lessons are only available in English. Authentic assessment is utilized whenever possible. GATE: Lessons are sequenced to increase in difficulty, providing challenges for more advanced students. Students move at their own pace and are given beyond-plus projects. Special Ed. and 504: The student’s IEP directs the curriculum. For example, a physically-handicapped student may be provided with a CAD document to modify, in place of creating one from scratch on their own.</p>
<p><b>Possible Correlation to Other Subject Areas</b> (Where could content, skills, resources, teaching strategies overlap?)</p> <p>Drafting, industrial arts courses, ROP Construction courses.</p>	<p><b>Professional Resources</b> (Websites, books, consultants, videos, etc.)</p> <ul style="list-style-type: none"> <li>▪ Guest speakers</li> <li>▪ Field trips</li> </ul>
<p><b>Potential Articulation with Other Programs</b> (Community College, Tech Prep, ROP, Distance Learning, etc.)</p> <p>Students who complete both courses (I &amp; II) may receive community college credit for the course as part of the Tech Prep Program.</p>	<p><b>Other Pertinent Information</b></p>