SCOPE AND SEQUENCE

The usage of Design Activity Briefs to experience all six technical drawing areas provides challenge and excitement to the student. The syllabus is planned to provide one unit of credit and encompass two semesters of instructional time. For a student to receive full value and impact, enrollment is recommended for the complete one unit, two-semester course. This will allow for acquisition and application of minimum level conventions throughout the design and drawing experiences.

For one unit of credit the syllabus prescribes that the student will be able to communicate graphically with accuracy and precision using the specified conventions inherent in each of these six major technical drawing areas:

- Orthographic Projection
- Pictorial Drawings
- Sections
- Auxiliaries
- Revolutions
- Transitions and Developments

In the event that the individual school program must be planned to offer only one half unit of Design and Drawing for Production, instruction and application of the first two technical drawing areas (orthographic projection and pictorial drawings) must be provided. In addition, through instruction, the student should be exposed to and made aware of the other four technical drawing areas.

When implementing curriculum at the local school district level, remember that this course of study should be organized in a holistic manner. All seven constants of a Design Activity Brief are to be investigated. As mentioned before, the learning process may start from any constant and continue in any order.

There is no suggested sequence for covering the technical drawing areas. Even if the teacher intends to cover just one area there may be ramifications leading to the opportunity to experience others simultaneously.

The instructional time needs to be organized and budgeted in such a way to ensure that during the year student activity is scheduled to cover all six technical drawing areas adequately. Consequently, students will have the ability to demonstrate and utilize the basic concepts and conventions of technical drawing that would be expected at this age/grade level. Of equal importance, the student will know how to use reference books and materials to acquire more detailed information which may be needed.

The elements and principles of art are to be an integral part of the learning process. (See Appendix J) The Design Activity Brief is the mechanism to allow for coverage of the elements and principles of art in the Design Activity. Students should understand that the design process is the basis for visual organization, and a process common to the practice of fashioning images into forms for visual communication.

The six technical drawing areas are to be considered comparable to a tool chest. areas. The teacher should cover each and focus on the minimum conventions inclusive of each, as needed. The Design Activity Brief is the mechanism to allow for coverage of the design and drawing process for each technical drawing area. Visual aids should be available in the classroom. These aids would serve as another resource for the student throughout the design and drawing experiences.

EVALUATION STRATEGIES

The following evaluation guidelines suggest ways that student progress toward the achievement of the course objectives can be assessed. The information below is suggestive of the possible categories and percentages that an instructor would use for the evaluation of students during each Design Activity Brief.

a.	Originality/Creativity of Design	35%
b.	Historical References	10%
c.	Research/Critical Analysis	20%
d.	Accuracy/Drawing Activity	35%

Some students with handicapping conditions may be unable to achieve the same competency of freehand sketching that they exhibit through Computer Assisted Design and Drawing or some other adapted design and drawing technique. **While these students must attain the same academic standards as their nonhandicapped peers, the individual needs and abilities of particular students should be carefully considered prior to the start of this course.** This will ensure that the teacher and students are aware of necessary modifications. See Appendix D for information on strategies for providing instruction to students with handicapping conditions.

FINAL EVALUATION

When determining a grade at the end of each semester and the final grade for the completion of the course of study, a portfolio of accumulated student work should be reviewed and factored into the final grade. The portfolio should consist of completed assignments and supporting documentation that demonstrates student understanding of the thirteen step Design/Production Process. The portfolio should account for approximately twenty-five percent of the student's final grade.

The final evaluation rests with the teacher, who will need to develop specific criteria for making judgments regarding what students have achieved. Some things to be considered might be:

- Measuring growth and progress
- Giving credit for concepts mastered
- Rewarding effort and involvement and giving each student a chance to succeed
- Rewarding creative and imaginative solutions
- Utilizing the Design/Production Process
- Assessing student ability to record ideas by using the technical drawing areas
- Using quizzes, exams, class critiques

When developing quizzes, exams and class critiques, try to test for information that addresses all seven constants and contributes to the holistic approach of the curriculum.

Teachers may decide to add additional items to complete the process for evaluating student success. The process one plans on using should be determined prior to teaching the course. At the beginning of each semester, teachers should inform students how they will be evaluated.