

Argyle Secondary School
Drafting and Design 11 Course Outline
Mr. Riml

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<https://curriculum.gov.bc.ca/curriculum/adst/11/drafting#>

Course Description

The Drafting and Design 11 program at Argyle Secondary builds on the skills and knowledge taught in Drafting and Design 10. In consultation with Mr. Riml students will work on self-directed projects in the architectural and mechanical disciplines.

The goal of the Drafting and Design program is to impart respect, awareness, and theoretical knowledge of the various tools, materials and techniques specific to this subject. Active participation in the development of specific skill sets will enable students to gain confidence, understanding, and achieve success in the Drafting and Design program.

BIG IDEAS

Design for the life cycle includes consideration of social and environmental impacts .	Personal design interests require the evaluation and refinement of skills.	Tools and technologies can be adapted for specific purposes.
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Learning Standards

Curricular Competencies	Content
<p><i>Students are expected to be able to do the following:</i></p> <p>Applied Design</p> <p><i>Understanding context</i></p> <ul style="list-style-type: none"> • Engage in a period of user-centred research and empathetic observation to understand design opportunities <p><i>Defining</i></p> <ul style="list-style-type: none"> • Establish a point of view for a chosen design opportunity • Identify potential users, intended impact, and possible unintended negative consequences • Make decisions about premises and constraints that define the design space, and identify criteria for success • Determine whether activity is collaborative or self-directed <p><i>Ideating</i></p> <ul style="list-style-type: none"> • Generate ideas and add to others' ideas to create possibilities, and prioritize them for prototyping • Critically analyze how competing social, ethical, and 	<p><i>Students are expected to know the following:</i></p> <ul style="list-style-type: none"> • simple drafting design projects • geometric construction to create drawings and images • drawing management and problem solving using computer-assisted design (CAD) software • use of scale and proportion when outputting to 3D models • geometric dimensioning and tolerancing

<p>sustainability considerations impact design</p> <ul style="list-style-type: none"> Choose an idea to pursue based on success criteria and maintain an open mind about potentially viable ideas <p>Prototyping</p> <ul style="list-style-type: none"> Choose a form for prototyping and develop a plan that includes key stages and resources Analyze the design for life cycle and evaluate its impacts Visualize and construct prototypes, making changes to tools, materials, and procedures as needed Record iterations of prototyping 	<p>in both imperial and SI units.</p> <ul style="list-style-type: none"> types, sizes, and applications of drawing media applicable visual formats and media for presenting design solutions technical problem solving using geometry, trigonometry, and algebra design for the life cycle ethics of cultural appropriation and plagiarism
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Curricular Competencies	Content
<p>Testing</p> <ul style="list-style-type: none"> Identify and communicate with sources of feedback Develop an appropriate test of the prototype, conduct the test, and collect and compile data Apply information from critiques, testing results, and success criteria to make changes <p>Making</p> <ul style="list-style-type: none"> Identify appropriate tools, technologies, materials, processes, cost implications, and time needed Create design, incorporating feedback from self, others, and testing prototypes Use materials in ways that minimize waste <p>Sharing</p> <ul style="list-style-type: none"> Decide on how and with whom to share design and processes for feedback Share the product with users and critically evaluate its success Critically reflect on their design thinking and processes, and identify new design goals Identify and analyze new design possibilities, including how they or others might build on their concept <p>Applied Skills</p> <ul style="list-style-type: none"> Apply safety procedures for themselves, co-workers, and users in both physical and digital environments Identify and assess skills needed for design interests, individually or collaboratively, and develop specific plans to learn or refine them over time Develop competency and proficiency in skills at various levels involving manual dexterity and drafting techniques <p>Applied Technologies</p> <ul style="list-style-type: none"> Explore existing, new, and emerging tools, technologies, and systems to evaluate suitability for their design interests Evaluate impacts, including unintended negative consequences, of choices made about technology use 	

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| <ul style="list-style-type: none">• Examine the role that advancing technologies play in drafting contexts | |
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2020 Scope and Sequence:

1. Introduction to Drafting and Sketch UP
2. Basic Technical Drawing
3. Isometric and Oblique Pictorial Drawings
4. Free Hand Sketching
5. Basic Residential Planning
6. Light Construction Principals
7. Drafting Expression
8. Architectural Details
9. Working Drawings of Small Homes
10. Careers using Architectural Drawing

Assessment & Evaluation Breakdown

Through individual and class discussions students will have the opportunity to discuss their own progress and work daily.

Individual requirements for each assignment will be outlined at the beginning of each project, including the criteria for evaluation that is in the format of a rubric.

You will be asked to hand in your projects and theory work during the term on specific dates. Marks will be deducted for late submissions (30%)

The following allocation will be used to calculate term marks:

Class Projects (practical)	80%
Classroom Participation; energy, focus, cooperation	20%

Resource Materials and Equipment Required

Students will be supplied with all materials and literature necessary for course participation. A respect for equipment and supplies within the classroom is demanded and will be diligently enforced.

Extra Help/ Tutorials

Students will be encouraged to use tutorial times provided for extra instruction and or practice and learning.

Expectations

It is imperative that students conduct themselves in a mature manor that reflects respect toward the class environment, members of the class and themselves.

It is expected that students:

- Attend each class and be on time
- Bring their personal supplies to each class

- Ensure projects are completed and submitted on time
- Ensure their notes and assignments are neat, organized, and up to date
- Respect the materials and equipment of the department
- Be respectful of other's personal space and equipment
- Use class time productively and safely
- Participate in classroom organization and clean-up on a continual bases
- Be open to new ideas, share your ideas and opinions while respecting those of others

Please refer to the Student Agenda for additional information pertaining to student conduct.