Applied Studies (APST) 220

3D Modeling, Digital Representation & Presentation (Revision 3)

Status:	Replaced with new revision, see the **course listing** for the current revision
Delivery mode:	**Individualized study online** with **eText**
Credits:	3
Area of study:	Applied Study
Prerequisites:	**APST 215**
Precluded:	None
Challenge:	APST 220 is not available for challenge.
Faculty:	**Faculty of Science and Technology**
Notes:	*APST 220: 3D Modeling, Digital Representation & Presentation* is intended for students enrolled in the BSc (Architecture) program at the RAIC Centre for Architecture at Athabasca University.

Overview

APST 220: 3D Modeling, Digital Representation & Presentation provides you with graphic skills that are essential to many tasks in design and construction documentation. In this course, you will develop your understanding and practice of modeling, spatial analysis, photography, presentation, and publication through the use of both digital and traditional tools and approaches. Throughout the course, you may wish to maintain a personal sketchbook (which will not be graded).

This course walks you through techniques of model making and drafting to develop complex shapes. Through video demonstrations, readings, and assignments, you will practice the physical and technical skills used to produce and understand architectural models. Using a case study of an existing architectural structure, you will learn to analyze the architecture within the context of technologies and form. In addition, you will learn how to photograph architectural structures and landscapes and then digitally edit them, with the ultimate intent of presenting and publishing materials.

Outline

There are six units in APST 220:

- **Unit 1:** Polyhedron Modeling
- **Unit 2:** Spatial Model Composition
- **Unit 3:** The Barcelona Pavilion
- **Unit 4:** Concept Diagrams
- **Unit 5:** Architectural Montage
- **Unit 6:** Presentation and Publication

Objectives

This course is intended to accomplish the following objectives:

1. Introduce 3D modeling techniques in conjunction with digital image editing, illustration, and presentation. (*Knowledge*)

2. Develop your abilities to explore design ideas by establishing connections between physical and digital-based platforms. (*Analyze*)
3. Develop your abilities to produce 3D models and computer-generated imagery for the purpose of developing and presenting design ideas. (*Apply*)

Learning outcomes

After successfully completing this course, you should be able to

- demonstrate mastery using computer technologies.
- through analysis and model building, interpret the architectural concepts of an architectural structure.
- integrate and apply technical competencies using photography and computer-assisted technologies.
- using visual and written media, demonstrate an understanding of critiquing spatial form and functions in design and presentation.

Evaluation

Course work will be evaluated based on six assignments. A final course grade of 67% or higher is required to pass the course.

The table below summarizes weighting:

Activity	Weight	Complete by
Assignment 1	15%	Unit 1
Assignment 2	10%	Unit 2
Assignment 3	20%	Unit 3
Assignment 4	15%	Unit 4
Assignment 5	20%	Unit 5

Activity	Weight	Complete by
Assignment 6	20%	Unit 6
Total	**100%**	

To learn more about assignments and examinations, please refer to Athabasca University's **online Calendar** .

Materials

Ching, F. D. K., & Juroszek, S. P. (2019.) *Design drawing* (3rd ed.). Wiley. (eText)

eText

Registration in this course includes an electronic textbook. For more information on **electronic textbooks** , please refer to our **eText Initiative site** .

Other Materials

Software: In order to complete APST 220, you will require access to vector-based software, photo-editing software, and graphic layout software. You may elect to purchase the **industry-standard Adobe packages** (Illustrator, Photoshop, and InDesign) or another software of your choosing.

Drawing/Modeling Materials and Tools: The course package contains a number of materials that you will use to complete assignments:

- white or beige 2-ply card stock
- tracing paper
- stainless steel knife
- masking tape
- white glue
- modeling set square
- 0.30 mm precision felt pen (or similar)

- 2H pencil or mechanical pencil, compass, protractor, ruler
- scale ruler
- coloured markers and/or pencil crayons

The course package contains one set of materials. No replacement materials will be provided.

Student-Provided Tools and Equipment: In order to complete APST 220, you require access to the following additional tools and equipment (not included in the course package). These items are easily found at art-supply stores such as **DeSerres** .

- digital camera (SLR preferred)
- drawing board with clip, 18" × 18" (e.g., DeSerres SCB14)
- white foam core board, 32" × 40", 1/8" thick (e.g., DeSerres FB3240-125)
- clear plastic sheet (e.g., DeSerres TAC1020)
- cutting mat, 18" × 24" (e.g., DeSerres DCM1824)
- metal ruler, stainless steel cork back, 18" (e.g., DeSerres S9635318)

Delivery

You will need convenient access to a web browser.

The course is delivered online by Athabasca University for study at home. You will be in regular contact with the Academic Expert, who will provide you with guidance and feedback. You are expected to spend about three hours of online classroom time each week and an additional six hours each week reading, drawing, and completing assignments.

Important links

- **Academic advising**
- **Program planning**
- **Request assistance**

- Support services

Athabasca University reserves the right to amend course outlines occasionally and without notice. Courses offered by other delivery methods may vary from their individualized study counterparts.

Opened in Revision 3, February 7, 2020

Updated April 26, 2024

View **previous revision**