

**Bergen Community College**  
**Division of Math, Science and Technology**  
**Department of Industrial & Design Technology**

**Course Syllabus**  
**DFT 270 Building Information Modeling**

Semester and year:

Course Number:

Meeting Times and Locations:

Instructor:

Office Location:

Phone:

Office Hours:

Email Address:

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**COURSE DESCRIPTION:**

DFT 270 Building Information Modeling will introduce students to the principles and practice of Building Information Modeling. Course exercises and projects are designed to enrich the students' understanding of the potential of this emerging technology on both a practical and theoretical level. The principal software that we will be currently using for this course is **Autodesk Revit Architecture**. Many of the terms and concepts covered will be common to other commercial products characterized as Building Information Modelers.

2 lecture, 2 lab, 3 credits

Prerequisites: DFT-262 Architectural Drafting or by permission of instructor

Co-requisites: None

**STUDENT LEARNING OBJECTIVES:**

As a result of meeting the requirements in this course, students will be able to:

Student performance on these objectives will be measured by:

1. Identify the parametric process used to construct and modify a 3 dimensional building information model (BIM).	CAD exercises using BIM functions.
2. Apply the software commands to create industry standard architectural drawings.	Semester project assembling construction documents.
3. Construct architectural buildings with a proper application of building materials.	Individual projects using advanced BIM tools and rendering functions.

## COURSE CONTENT:

<u>CHAPTER</u>	<u>TOPIC</u>
1.	Intro to BIM theory & terminology
2.	Windows & Doors- copying floor to floor
3.	Floors and ceilings
4.	Floor Openings & railings, Elev. shafts
5.	Floors and ceilings - Families
6.	Floors and ceilings/ soffits
7.	Curtain walls and Storefronts
8.	Sections, Details and detail components
10.	Exterior Renderings/sheet set-up
11.	Interior Perspectives

## TEXTBOOK:

**COMMERCIAL DESIGN USING AUTODESK REVIT ARCHITECTURE 2015**, Daniel John Stine SDC Publications  
ISBN # : 978-1-58503-512-0

## EVALUATION:

A. Semester Projects.....	50%
B. Final Project.....	40%
C. Class Participation.....	10%
TOTAL.....	100%

## COURSE REQUIREMENTS:

Lectures will be interspersed with the practical application of the covered topic and each topic should be well practiced in off-class time. Each student is expected to devote sufficient hours per week of non-class time to completing weekly assignments, and applying lecture material using the software therefore, note recording is strongly recommended. Also, **participation is mandatory**; the intensive schedule of the course cannot accommodate absentee students. Make up for necessary absences by practicing with the software and by arranging to review with willing classmates.

Completion of one practical project, details to be announced, is required to complete this course. The nature of the project generally permits a degree of flexibility, therefore allowing students to tailor exercises that best fit their interests, provided that proposals fall within the disciplines of architecture and/or construction. These might include design experimentation with existing spaces, augmentation of studio design projects, and portfolio enhancement.

## ATTENDANCE POLICY:

Attendance will be taken twice during each class period. The first attendance for the lecture portion of the class will be at the beginning of each class. The second attendance, for the laboratory portion of the class will be taken at 11:30 a.m. for classes beginning in the morning, 5:15 p.m. for classes beginning early afternoon, and 9:45 p.m. for evening classes.

If a student is absent from the lecture portion of the class, it will be recorded as an absence for the entire class period. If a student is absent from the laboratory portion of the class, it will be recorded as an absence from that portion of the class only.

A letter grade will be deducted from the class participation portion of your final grade for each absence beyond three absences from either portion of a class period.

SPECIAL NOTES:

**A final grade cannot be assigned for the course until all drawings, projects and examinations for the course have been completed.**

Make-up examinations will be administered in accordance with the instructor's and division's policy.

FACULTY ABSENCE PROCEDURE: Please note well.

A daily listing will appear in the glass case located in the main hall A bldg. which will indicate all classes which are cancelled. Students can consult this case before going to class. If students find a class cancelled which has not been listed, they should report this to the divisional dean's office (A325) or to the evening/Saturday office (L113).

CALENDAR:

<u>Class Meeting</u>	<u>Date</u>	<u>Topic</u>	<u>Chapter</u>
1.	_____	Introduction to BIM theory & terminology, drawing screen review	1
2.	_____	Floors and Ceilings - Families	3, 5
3.	_____	Windows and doors – copying floor to floor	2
4.	_____	Ceilings and special ceilings/ soffits	3,6
5.	_____	Floor openings & railings; elevator shafts-REVIT web browser	4
6.	_____	Curtain walls and storefront walls	7
7.	_____	Open lab	
8.	_____	Stairs and landings / railings	4
9.	_____	Sections, details and detail components	8
10.	_____	Site development	-
11.	_____	Interior Perspectives	11
12.	_____	Exterior Renderings /sheet set-up	11,10
13.	_____	Open lab	
14.	_____	Open lab	
15.	_____	Evaluation of Final Construction Documents	

All BCC students enrolled in credit courses are entitled to a WebAdvisor account. With WebAdvisor, you may register online, check your schedule, room assignments, GPA, and find out what courses you need to take. To find out more about WebAdvisor or to sign up online, visit <<http://go.bergen.edu>>! While there, please make sure you give us your preferred email address. You'll find directions how to do this at <<http://go.bergen.edu/email>>.