

Course Establishment Form Outline

Effective date: Winter 2010:

Division:	Business, Engineering & Information Technology	Program/Dept:	Architecture Engineer & Sustainable Design
Course Number:	TDR 102	Credits:	5 Variable:
Course Title:	Advanced BIM for Design & Construction		
Inst. Intent:	21 Vocational Preparatory	CIP:	
	Fee: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Type	CL - Computer Lab Fee

Degree/Certificate Requirement:	Yes <input checked="" type="checkbox"/>	No:
Name of Degree/Certificate:	Architecture Engineer & Sustainable Design Associate of Applied Science Degree	
Distribution Requirement for AA/AS:	Yes	
Transfer Status to 4-year institution:	Yes	No: <input checked="" type="checkbox"/>
If yes, please describe:		
Course length:	1 qtr., 11 wks.	Class Size: 24
Course Contact Hours:	Based on 11 wks/qtr.	
Lecture: 55	Lab:	Clinical:
		Other:
		System:
Prerequisite:	Yes: <input checked="" type="checkbox"/>	No:
If yes, please describe:		
TDR 100 and TDR 101		
Required Placement Tests:	Yes	No <input checked="" type="checkbox"/>
If yes, please describe:		
Comments:		

Course Description:
Course continuation of TDR 101. Focus will be on whole building creation, creation of details, drag and drop construction drawings, building management and plotting as it relates to construction/design and sustainable applications, use of green analysis software. Prerequisite: TDR100 and 101 or instructor's permission. Open lab. Computer lab fee.

NSCC General Education Outcomes and/or Related Instructional Outcomes Met by Course:

1. Apply computer competency appropriate to general education and occupational goals.
2. Work and communicate effectively in groups.

Course Outcomes/Learning Objectives:

1. To develop advanced understanding of computer software that promotes green Architecture.
2. To develop advanced skills in the use of BIM software as it relates to sustainable design practices.
3. To build on concepts learned to model quality drawings with accepted conventions and standards using BIM.

Topical Outline and/or Major Divisions:

- I **Introduction to TDR 102**
 - A. Course contents
 - B. Class procedures
 - C. Course objectives
- II **Advanced equipment practices to increase productivity**
- III. **Advanced BIM software concepts**
 - A. Building Information Management/Modeling programs
 - B. The BIM program - an overview
- IV. **Advanced BIM topics as they relate to sustainable design**
 - A. BIM project lifecycle studies
 - B. Renewable energy integration
 - C. Site studies for optimum energy impact
 - D. Modeling
 - E. Integrate codes as they relate to regions
 - F. Environment protection considerations
 - G. Realistic LEED level achievement
 - H. Plotting
- V. **Advanced Modeling Project - Commercial**
- VI. **Evaluations**

Course Requirements (Expectations of Students)

Attendance, assignments, and quizzes as specified by the instructor.

Students will be expected to demonstrate the ability to perform specific competencies listed under "Course Outcomes/Learning Objectives."

Methods of Assessment/Evaluation:

To be determined by instructor.

Final grades are assigned according to published grading standards for course.

Required Text(s) and/or Materials:

As required by instructor.

Recommended- Commercial Design Using Autodesk Revit Architecture 2010, D. Stein, SDC Publications
ISBN 978-1-58503-512-0

Supplemental Text(s) and/or Materials:

As required by instructor.

Outline Developed by: Stephen Simmons

Date: 7/09

Outline Revised by: Stephen Simmons

Date: 7/09