

THREE RIVERS COMMUNITY COLLEGE
CAD K116, “REVIT 3D SOFTWARE” (Formerly ARC-282 Trends+Issues)
 Monday 6:00 - 8:45pm

Instructor: Brian Schuch ▪ Architect, email BrianSchuch@gmail.com

Pre-req. None Co-req. None
 Grade: In-class Projects 40% Assignments 40% Final Project 20%
 Method: In-class structured demonstrations, project assignments.
 Text: Martin, David. *Instant Revit*, 2016. ISBN 9781501010415 (or other as assigned by instructor)

Course Description:

Revit® 3D Software is an Autodesk® platform course where students gain operational and productivity knowledge in this industry-leading parametric software application. Structured demonstrations will lead students through command of the software dashboard, execution of operations, and sheet setup and product output, while gaining working knowledge of BIM (building information modeling) and its capabilities.

<p><u>Unit 1</u> Introduction to Revit BIM, Dashboard Navigation, Views</p>	<p><u>Unit 9</u> Components Adding Components</p>
<p><u>Unit 2</u> Basic Drawing & Editing General Drawing Tools, Editing Elements, Basic Modifying Tools</p>	<p><u>Unit 10</u> Reflected Ceiling Plans Creating Ceiling & Soffits Adding Ceiling Fixtures</p>
<p><u>Unit 3</u> Setting Up Level & Grids Creating Levels, CAD Import, Structural Grids, Adding Columns</p>	<p><u>Unit 11</u> Roofs Creating Roofs, Roofs by Footprint, Reference/Work Planes, Extrusion</p>
<p><u>Unit 4</u> Drawing & Modifying Walls Creating Exterior Shell, Adding Int. Walls</p>	<p><u>Unit 12</u> Vertical Circulation Stairs, Ramps & Railings</p>
<p><u>Unit 5</u> Doors & Windows Adding Doors & Windows, Loading Families Creating Elements</p>	<p><u>Unit 13</u> Construction Documentation Sheet Setup, Placing Views/Modifying, Printing and Product Output</p>
<p><u>Unit 6</u> Curtain Walls Creating Curtain Walls, Curtain Grids & Panels, Adding Mullions</p>	<p><u>Unit 14</u> Annotation Text Annotation, Dimensions, Adding Detail Tags & Symbols</p>
<p><u>Unit 7</u> Creating Views Duplicating Views, Call-out Views, Creating Elevations & Sections</p>	<p><u>Unit 15</u> Tags & Schedules Adding Tags, Room Tags, Creating Schedules & Legends</p>
<p><u>Unit 8</u> Floors Creating Floors, Shaft Openings, Sloped Floors</p>	<p><u>Unit 16</u> Revit Detailing Setting Up Detail Views, Patterning, Creating, Annotating & Keynoting</p>

Educational Objectives:

- Become familiar with the differences between 2D CAD and 3D Parametric representation;
- Develop an operational understanding of the Revit platform, its dashboard, and “family” data blocks;
- Practice project setup, sheet assembly, design & detailing, and product printing and output;
- Demonstrate working knowledge of the software through execution of a final project.

ACADEMIC PERFORMANCE

Lecture Period:

Students shall respect the classroom environment. Professors invest valuable time in lecture preparation to make the course content organized, interesting, and understandable and to make the learning environment collegial. Unless specifically directed by the professor, students shall refrain from sending email and instant messages, or from engaging in other activities (reading non-course materials, engaging in private conversations and so on), that disrespect the classroom environment and learning conditions for others.

Access to the Internet can be a valuable aid to the classroom learning environment. Students are encouraged to use laptops, smart phones, and other devices in order to explore concepts related to course discussions and topics. Students are discouraged from using technology in ways that distract from the learning community (e.g. Facebook, texting, work for other classes, etc.) and if found doing so, will be asked to leave the classroom for the day and will not get credit for attendance that class period.

Assessment:

Assessment of your mastery of the Courses learning objectives may be administered through quizzes, exams, or essays. These are announced with ample preparation time and sometimes a study guide. Upon absence from a class in which an assessment is given, it is the student's responsibility to request, coordinate and schedule, a makeup date and time with the professor. Assessments not made up within one week from when initially given will result a three point reduction from the score earned, per class period lapse.

Online Learning Portfolio

All students are required to maintain an online learning portfolio in Digication that uses the college template, in as much as it is pertinent and supported by outcome products of this course. Through this electronic tool students will have the opportunity to monitor their own growth in college-wide learning. The student will keep his/her learning portfolio and may continue to use the Digication account after graduation. A Three Rivers General Education Assessment Team will select and review random works to improve the college experience for all. Student work reviewed for assessment purposes will not include names and all student work will remain private and anonymous for college improvement purposes. Students will have the ability to integrate learning from the classroom, college, and life in general, which will provide additional learning opportunities. If desired, students will have the option to create multiple portfolios.

Integrity:

Any and all exams, papers or reports submitted by you and that bears your name is presumed to be your own original work that has not previously been submitted for credit in another course unless you obtain prior written approval to do so from your professor.

In all of your assignments, including homework or drafts of papers, you may use words or ideas written by other individuals in publications, web sites, or other sources but only with proper attribution. "Proper attribution" means that you have fully identified the original source and extent of your use of the words or ideas of others that you reproduce in your work for this course, usually in the form of a footnote or parenthesis.

As a general rule, if you are citing from a published source or from a web site and the quotation is short (up to a sentence or two), place it in quotation marks; if you employ a longer passage from a publication or web site, please indent it and use single spacing. In both cases, be sure to cite the original source in a footnote or in parentheses. (See http://www.plagiarism.org/plag_article_how_do_I_cite_sources.html for more information on citing.)

If you are uncertain about the expectations for completing an assignment or taking a test or examination, be sure to seek clarification from your professor beforehand.

Finally, you should keep in mind that as a member of the Three Rivers Community College community, you are expected to demonstrate integrity in all of your academic endeavors and will be evaluated on your own merits.

Be proud of your academic accomplishments and help to protect and promote academic integrity. The consequences of cheating and academic dishonesty may include a formal discipline file, possible loss of financial scholarship or employment opportunities, and denial of admission to a four-year college.