1. **COURSE ID:** DRAF 113   **TITLE:** REVIT
   Units: 3.0 units **Hours/Semester:** 32.0-36.0 Lecture hours; 48.0-54.0 Lab hours; and 64.0-72.0 Homework hours
   Method of Grading: Grade Option (Letter Grade or Pass/No Pass)

2. **COURSE DESIGNATION:**
   Degree Credit
   Transfer credit: CSU

3. **COURSE DESCRIPTIONS:**
   Catalog Description:
   Preparation of working drawings using AutoDesk REVIT. Students prepare drawings of buildings, their components in 3D, annotation of the models with 2D drafting elements, access building information from the building models database and track various stages in the building's lifecycle, from concept to construction and later demolition. A materials fee as shown in the Schedule of Classes is payable upon registration.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**
   Upon successful completion of this course, a student will meet the following outcomes:
   1. Use architectural drafting techniques to design, assemble, evaluate, and render architectural building components.
   2. Develop plan and elevation drawings and details from three-dimensional architectural models.
   3. Use Building Information Modeling (BIM) software for creation of digital building models.
   4. Identify architectural and design terminology necessary to effectively operate BIM software.
   5. Recognize techniques utilized by the architectural profession to create architectural technical drawings from building models.

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**
   Upon successful completion of this course, a student will be able to:
   1. Use architectural drafting techniques to design, assemble, evaluate, and render industry components.
   2. Create, explain elevation drawings and details from three-dimensional architectural models.
   3. Use Building Information Modeling (BIM) software for creation of digital building models that meet industry standards in MEP.
   4. Understand and explain techniques utilized by the architectural profession to create architectural technical drawings from building models.

6. **COURSE CONTENT:**
   Lecture Content:
   1. Creating floor plan using walls, doors, windows, roof commands
   2. Learning edit tool to create lines and shape
   3. Project in setting up a base floor plan
   4. Project in setting up second, third and basement plans
   5. Roof projects using gable and low roof elements
   6. Project creating bathroom and kitchen layouts
   7. Guardrail balcony projects
   8. Generating door and window schedules
   9. Create an exterior and interior rendering
   10. Printing sets of drawings
   Lab Content:
   LAB portion of class supports each lecture through design problems that support the given lecture theme.

7. **REPRESENTATIVE METHODS OF INSTRUCTION:**
   Typical methods of instruction may include:
   A. Lecture
   B. Lab
   C. Critique

D. Directed Study
E. Guest Speakers
F. Individualized Instruction
G. Observation and Demonstration

8. **REPRESENTATIVE ASSIGNMENTS**
Representative assignments in this course may include, but are not limited to the following:
Writing Assignments:
Homework consists of reading the extensive syllabus; completion of homework writing assignments. Approximately two extensive design projects will be assigned which require problem solving and critical thinking, The major means of communication is formal standardized BIM drawings. Students will write justifications for their designs.
Reading Assignments:
Watching tutorials on the web and searching out problems in BIM forums are assigned. The textbooks change each year as the software is upgraded. The texts are expensive, thus applying creative web information gathering from various forums can supply the latest and up to date fixes on software issues. Drafting and design is dynamic thus extensive web searching is critical.

9. **REPRESENTATIVE METHODS OF EVALUATION**
Representative methods of evaluation may include:
A. Class Participation
B. Class Performance
C. Class Work
D. Exams/Tests
E. Homework
F. Lab Activities
G. Portfolios
H. Projects
I. Quizzes
J. Written examination

10. **REPRESENTATIVE TEXT(S):**
Possible textbooks include:
A. Kirby, Yori, Kim. *Mastering Autodesk Revit 2020,* 1st ed. Sybex, 2019

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Course Originator: Rosemary Nurre