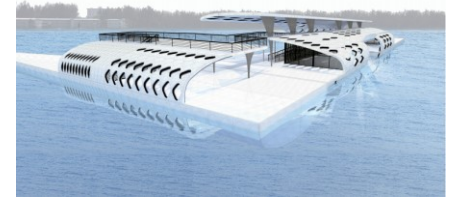


# NEW: Autodesk Revit Certification

## STRUCTURAL MODELLING

Fall 2020

Course: ARC 6512 & ARC 4511; Class Hours: T 7-9



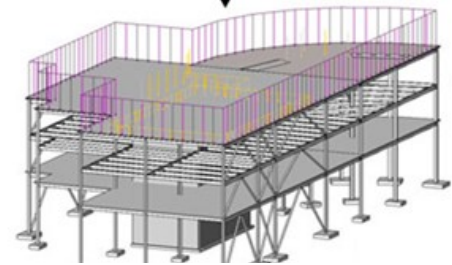
Building:

### Course Description

Structural modeling has its importance in building design and construction industry. Structural modeling not only gives error-free structural **3D** models for buildings but also offers better alternatives to achieve the best outputs in your building design using Building Information Modeling (BIM).

This course addresses the principles of building information structural modeling. The course also develops an understanding of digital design, comparative systems analysis, and detailing for architectural structures. Students will learn how to efficiently implement **BIM** to organize, coordinate, and communicate information in order to convey the data necessary for building design. The main topics addressed include

- Introduction to **BIM** fundamentals
- Principles of Structural Modeling using Autodesk **Revit**
- Modeling Columns, beams, floor slabs, roof decks, walls, framing, foundations, and rebars.
- Examples: Concrete Buildings, Steel Buildings, Wood Framed Buildings, Hybrid Buildings.
- Sheets and construction documents
- Families creation
- Model Sharing: internal and external sharing
- Productivity, Interoperability
- Massing, Visualization, and Rendering
- Constructability: Project phase and Design Options
- Integrated practice and architectural design.



At the completion of this course, students should have a sound understanding of these concepts and principles along with the skill gained in utilizing Autodesk **REVIT** and are able to apply them in designing steel, wood and concrete buildings. The class is recognized for Autodesk Revit Certification. Students should be ready to obtain Autodesk Revit Certificates.

