Course Description: Building Information Modeling (BIM) is defined as a tool to manage “Design, Procurement and Construction, and operation Phase” of Building projects in this course, however, emphasis is on Design and procurement phase.

Building Information Modeling is a virtual model of a building that can be used a powerful managing tool to manage design process by enhancing coordination among different design deliverables, link model elements to multiple specifications recommended by Construction Specification Institute, and facilitate a transparent bid process.

Course Objectives
- Familiarize student with the construction project life cycle, business case and economic rationale for the application of Building Information Modeling (BIM).
- Provide student with the fundamental knowledge of BIM and its use in different disciplines
- Familiarize student with understanding of construction specification Institute practice guide, and development of BIM section in Project Management Plan (PMP)
- Provide familiarity with the current BIM technologies, and understanding of the shift from representation to simulation in Construction planning
- Provide understanding of the linking of vital information, such as vendors for specific materials, location of details and quantities required for estimation, bidding and scheduling, into the model

Course Structure
A combination of lectures, case studies and workshops. Additional out of class time required for directed learning, class assignments and reviewing relevant material. There will be reading material in addition to your practical homework each week and I expect each student to be prepared to discuss the topics in the class.  

Readings
There is no required text book for this course, however there are several references that are all available online thru NYU

- building SMART International and their varied noteworthy publications, please refer to http://www.buildingsmart.org/, and National BIM Standard

1 Missing more than two classes with a legitimate excuse would result in “F” grade. If you cannot participate in the class for any reason, you should discuss the matter with you graduate advisor.
New York University Tandon School of Engineering - Civil and Urban Engineering
CE – GY 8243 Building Information Modeling Technique - Fall 2017

- BUILDING INFORMATION MODELING SCOPE OF SERVICES AND REQUIREMENTS FOR ARCHITECTS AND ENGINEERS, Design-Bid-Build Version 1.0 – July 9, 2010, NASA
- BUILDING INFORMATION MODELING (BIM) GUIDELINES and STANDARDS for ARCHITECTS and ENGINEERS, ARMY Corps
- Design Intent and Basis of Design: Clarification of Terms, Structure, and Use, Karl Stum, P.E.

Course requirements

Work Memorandum (WM): 13 Deliverables 40% of final grade
Optional Deliverables: 3 or 4-60% of final grade
Part I: [Topic of first part of the course, if applicable]

[Date] Topic of Class 1
- [Reading 1]
- [Reading 2]

[Date] Topic of Class 2
- [Reading 1]
- [Reading 2]

[Date] Topic of Class 3
- [Reading 1]
- [Reading 2]
- [Name of assignment that is due]

Part II: [Topic of second part of the course, if applicable]

[Date] Topic of Class 4
- [Reading 1]
- [Reading 2]

[Date] Topic of Class 5
- [Reading 1]
- [Reading 2]
- [Reading 3]

[Date] Topic of Class 6
- [Reading 1]
- [Reading 2]
- [Name of assignment that is due]

[Date] [Exam]

[Date] Topic of Class 7
- [Reading 1]
- [Reading 2]

[Date] Topic of Class 8
- [Reading 1]
- [Reading 2]

[Date] Topic of Class 9
- [Reading 1]
- [Reading 2]

[Date] Topic of Class 10
[Date] Topic of Class 11
- [Reading 1]
- [Reading 2]

[Date] Topic of Class 12
- [Reading 1]
- [Reading 2]

[Date] Topic of Class 13
- [Reading 1]
- [Reading 2]

[Date] Topic of Class 14
- [Reading 1]
- [Reading 2]

[Date] Final Assignment Due

Moses Center Statement of Disability

If you are student with a disability who is requesting accommodations, please contact New York University’s Moses Center for Students with Disabilities (CSD) at 212-998-4980 or mosescsd@nyu.edu. You must be registered with CSD to receive accommodations. Information about the Moses Center can be found at www.nyu.edu/csd. The Moses Center is located at 726 Broadway on the 2nd floor.

NYU School of Engineering Policies and Procedures on Academic Misconduct

A. Introduction: The School of Engineering encourages academic excellence in an environment that promotes honesty, integrity, and fairness, and students at the School of Engineering are expected to exhibit those qualities in their academic work. It is through the process of submitting their own work and receiving honest feedback on that work that students may progress academically. Any act of academic dishonesty is seen as an attack upon the School and will not be tolerated. Furthermore, those who breach the School’s rules on academic integrity will be sanctioned under this Policy. Students are responsible for familiarizing themselves with the School’s Policy on Academic Misconduct.

B. Definition: Academic dishonesty may include misrepresentation, deception, dishonesty, or any act of falsification committed by a student to influence a grade or other academic evaluation. Academic dishonesty also includes intentionally damaging the academic work of others or assisting other students in acts of dishonesty. Common examples of academically dishonest behavior include, but are not limited to, the following:
1. Cheating: intentionally using or attempting to use unauthorized notes, books, electronic media, or electronic communications in an exam; talking with fellow students or looking at another person’s work during an exam; submitting work prepared in advance for an in-class examination; having someone take an exam for you or taking an exam for someone else; violating other rules governing the administration of examinations.

2. Fabrication: including but not limited to, falsifying experimental data and/or citations.

3. Plagiarism: intentionally or knowingly representing the words or ideas of another as one’s own in any academic exercise; failure to attribute direct quotations, paraphrases, or borrowed facts or information.

4. Unauthorized collaboration: working together on work that was meant to be done individually.

5. Duplicating work: presenting for grading the same work for more than one project or in more than one class, unless express and prior permission has been received from the course instructor(s) or research adviser involved.

6. Forgery: altering any academic document, including, but not limited to, academic records, admissions materials, or medical excuses.