Course Title: Building Information Modeling
Course Prefix: ARCH  Course No.: 4743  Section No.: P01

“If only one book were to be written about BIM, it might have `DON'T PANIC` printed in large uppercase letters on the front cover.” – Pete Zyskowski

“It's critical that designers can adopt a BIM approach where all the key stakeholders in a build can collaborate efficiently and effectively during the design phase.” – Jukka Nyman

School of Architecture
- Architecture
- Construction Science
- Art
- Digital Media Art
- Community Development

Course Location: Nathelyne Archie Kennedy Building, Room 231 & 234
Class Meeting Days & Times: Tuesdays and Thursdays; 2:00-3:20 PM

Catalog Description: “(2-2) Credit 3 semester hours. Introduction to the fundamentals of Building Information Modeling and how they apply to the design and construction industry and a technology enabled workforce. Introduction to the methods of creation, evaluation and exchange of Building Information Models. Leveraging BIM and 4D modeling for construction optimization and sustainable building initiatives.

Prerequisites: ARCH 2223
All students should already know Revit and have passed its course with a C or better grades.

Co-requisites:

Mode of Instruction: ☑ Face-to-face □ On-line □ Hybrid
Instructor: Vahid Faghihi, PhD
Assistant Professor
Office Location: School of Architecture, Room 240
Office Telephone: (936) 261-9800
Email Address: vafaghihi@pvamu.edu

U.S. Postal Service Address: Prairie View A&M University
P.O. Box 519
Mail Stop 2100
Prairie View, TX 77446

Office Hours: Tuesdays & Thursdays 3:30 PM-5:00 PM. BY APPOINTMENT. Students are advised to make appointments with the professor ahead of time and be specific with the subject matter to be discussed. Students must be prepared for their appointment by bringing all applicable materials and information to the meeting.
Virtual Office Hours:


Optional Text: BIM and Construction Management: Proven Tools, Methods, and Workflows (2nd Edition, 2015); Author: Brad Hardin and Dave McCool; Publisher: John Wiley & Sons, Inc.; ISBN: 9781118942765

Recommended Text/Readings:

PVAMU Library: Telephone: (936) 261-1500; web: http://www.tamu.edu/pvamu/library/
Use the Reference Desk at the library where the staff is eager to guide your research. They can orient you to hard copies and online resources.

University Bookstore: Telephone: (936) 261-1990
web: https://www.bkstr.com/Home/10001-10734-1?demoKey=d

The Writing Center
Telephone: (936) 261-3700
The Writing Center’s goal is to provide a friendly, stress-free environment for students from all over campus to meet with a consultant and talk about writing of all types. They provide a responsive audience and advice from experienced writers in sessions generally lasting thirty to forty-five minutes. Sessions of this length offer time to work individually with students on any aspect of the writing process: from brainstorming and drafting, to revising and proofreading. They will explore ways to improve a student’s overall writing skills. They do NOT proofread or edit for students, but instead teach proofreading and editing techniques. Their goal is to: make a better writer for the long term.

Student Academic Success Center
Telephone: (936) 261-1040
Student Academic Success Center identifies academic and social roadblocks that interfere with persistence and timely graduation of PVAMU students. SASC informs campus-wide policies by staying current with retention literature and best practices. Further, SASC develops programs and services that are specifically aimed at continuing the academic success of the first year. We strive to provide PVAMU students with “Navigation to Graduation.”

The Tutoring Center
John B. Coleman Library in Room 209
Telephone: (936) 261-1561
Hours: Monday through Thursday 12 pm to 9 pm and Friday from 8 am to 5 pm.
Email: ATutoring@pvamu.edu
Open to all undergraduate students enrolled for credit in targeted PVAMU courses. Offers help for:

- Microeconomics, Macroeconomics
- Management Information Systems
- History, Government
- Statistics, Basics – Calculus II
- Psychology, Sociology
- English (Basics – Freshman Comp II), Speech
- Spanish I & II
- Biology (Pre-Med, Pre-Nursing)
- Chemistry (Bio & Nursing Majors)
- Physics
- Materials & Science

Course Goals and Overview:

Building Information Modeling (BIM) offers a novel approach to design, construction, and facility management in which a digital representation of the building product and process is used to facilitate the exchange and interoperability of information in digital format. BIM is beginning to change the way buildings look, the way they function, and the ways in which they are designed and built.

This course provides an in-depth understanding of BIM technologies, the business and organizational issues associated with its implementation, and the profound advantages...
that effective use of BIM can provide to all members of a project team. It also guides readers to successful implementations, helping them to avoid needless frustration and costs and take full advantage of this paradigm-shifting approach to construct better buildings that consume fewer materials and require less time, labor, and capital resources.

**Course Outcomes/Learning Objectives**

At the end of this course, the students will:

4743.1 Learn and get familiar with core technologies and important software for BIM

4743.2 Explain how data exchange and collaboration takes place using BIM in construction industry

4743.3 Contrast and classify different applications of BIM for owners and facility managers, architects and engineers, contractors, and subcontractors and fabricators.

4743.4 Prepare a basic set of architectural construction documents for a project with emphasis on plans, elevations and sections.

4743.5 Analyze and inspect different applications of BIM in construction project management via comprehensive studies.

4743.6 Build and construct constructability reports available through using BIM.

**Course Requirements & Evaluation Methods**

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

- **Assignments/Papers/Exercises**: Written assignments designed to supplement and reinforce course material
- **Exams**: Written tests designed to measure knowledge of presented course material
- **Projects**: Assignments designed to measure ability to apply presented course material
- **Class Attendance/Participation**: Daily attendance and participation in class discussions

**Grading Matrix**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Value (points or percentages)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>7 assignments at 6 points each</td>
<td>42</td>
</tr>
<tr>
<td>Paper</td>
<td>1 paper at 18 points</td>
<td>18</td>
</tr>
<tr>
<td>Project</td>
<td>1 project at 25 points</td>
<td>25</td>
</tr>
<tr>
<td>Mid Term Exam</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>Class Attendance/Participation</td>
<td>30 sessions at 0.5 points each</td>
<td>15</td>
</tr>
<tr>
<td>Final Exam</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

**Additional Credit/Bonus**

<table>
<thead>
<tr>
<th>Grade Determination:</th>
<th>A = 90-100 points</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B = 80–89 points</td>
</tr>
<tr>
<td></td>
<td>C = 70–79 points</td>
</tr>
<tr>
<td></td>
<td>D = 60–69 points;</td>
</tr>
<tr>
<td></td>
<td>F = 59 points or below</td>
</tr>
</tbody>
</table>

**Course Procedures**

- **Taskstream**: Taskstream is a tool that Prairie View A&M University uses for assessment purposes. One of your assignments may be considered an "artifact," an item of coursework that serves as evidence that course objectives are met. More information will be provided during the semester, but for general information, you can visit Taskstream via the link in eCourses.

- **University Attendance Policy**: Prairie View A&M University requires regular class attendance. Excessive absences will result in lowered grades. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or assignment of a grade of “F.” Absences are accumulated beginning with the first day of class.
| Instructor’s Attendance and Participation Policy |  
As a student in a professional practice course at Prairie View A&M University you are expected to attend each class. Class attendance is recorded on roll sheets that are circulated to record your name and signature. Since attendance is critical to the learning objectives and the class discussions, a 0.5 point involvement grade is awarded for each session (i.e. 50 pPoints aka participation points). You start with 20 pPoints for attending each class session under the assumption that you have come to learn. However, to gain an understanding of the course material, you must do more than just show up. Attentiveness is important. For example, showing up for class and then reading the newspaper will cause a deduction from your 10 pPoints. Other things that could cause you to lose points would be sleeping in class, repeatedly checking your cell phone, working on other assignments in class, being late, being rude or being disruptive. However, if you are attentive during the lectures and discussions, you will be awarded an additional 15 pPoints for each class. The remaining 15 pPoints per class are earned by action on your part such as diligently taking notes, finding or sharing your thoughts on the subject being discussed, or asking a thoughtful and appropriate question. These points, plus potential bonus points, could also be earned by writing a one-page reaction paper about the class material or finding an insightful article from the newspaper or an architectural magazine. If you are late to class you are subject to losing all or parts of the 15 participation pPoints. Typical deductions for being late are: Up to 5 minutes: 0 pPoints; from 5 to 10 minutes: 5 pPoints; from 10-15 minutes: 10 pPoints; and over 15 minutes: 15 pPoints.  
You are not in competition with your fellow classmates for involvement points. Each student can receive 0.5 points per class session as long as they are legitimately earned. Participation and absences are accumulated beginning with the first day of class on January 14, 2020. If you do not come to class, you may assume that you have received zero (0) points for the class period unless you have a university approved excuse in one of the following classifications:  
1. Participation in an activity appearing on the University authorized activity list.  
2. Death or major illness in a student’s immediate family.  
3. Illness of a dependent family member.  
4. Participation in legal proceedings that requires a student’s presence.  
5. Religious holy day.  
6. Confinement because of illness.  
7. Required participation in military duties.  
If you miss class for one of these reasons, you must provide a memorandum plus supporting documentation to clear the absence from your record. These documents will be accepted for ONE WEEK AFTER THE ABSENCE HAS OCCURRED. There will be NO exceptions to this rule. This includes student-athletes who are to provide university forms for reporting absences to participate in approved competitions. Emails will not be accepted to clear these absences. After that, the involvement grade stands. If you have another reason other than these seven for being absent, you may submit a memorandum with supporting documentation requesting that the absence be removed from you record for ONE WEEK AFTER THE ABSENCE HAS OCCURRED. There will be NO exceptions to this rule. All requests will be reviewed and approved or disapproved based upon the justification that you provide in your memorandum. While other reasons for being absent are rarely approved; it is understood that you might feel that there is a higher priority that requires you to miss class. In accepting your decision to miss class, you must also be willing to accept the instructor’s decision to not award you involvement points for the class or classes that are missed. To assist you in recovering lost points, there is an opportunity to earn additional points towards your final grade.  
| Personal Conduct | Students and faculty are expected to conduct themselves in ways that support individual learning and the learning of others. To that end members of the classroom community will conduct themselves in a professional and ethical manner to achieve these objectives. Any |
conduct construed to interfere with the learning opportunities of members of the class may result in the removal of the student from the class for that day. Repeated inappropriate conduct will result in permanent removal from the class. Based upon the fact that you are preparing for professional employment, you are expected to adhere to the following specific guidelines:

1. During regular class periods all students are expected to dress appropriately in accordance with university regulations so that no disruptions in the learning experience will occur.
2. No hats or caps will be allowed to be worn in the classroom during class sessions. If you elect to wear a hat or cap during the lectures or class discussion, your decision will be respected. However you should also respect the instructor’s decision to not award you daily participation points based upon that decision.
3. Dress Code for Presentations: Professional dress is expected for all design and technical presentations in class. Failure to adhere to the guidelines posted by the instructor will result in a deduction of ten percent (10%) from your final presentation score.
4. No food or drink is allowed in the classroom at any time.
5. Cellular telephones are to be turned off or put on silent ring tone during the class period. Texting is strictly prohibited during the class period. No ‘earphone’ units will be allowed. If your cell phone rings during the lecture or you are texting you are subject to losing all participation point for that class period.
6. Laptops must emit no noise. Make sure your laptop is warmed up and your battery charged before class starts. A laptop is allowed only for taking notes or accessing relevant course material during the class. Checking email, playing a game, messaging and other non-class related activities are not allowed at any time.
7. Harassment of your fellow students of any kind will not be tolerated.
8. No children, friends, family members or guests are allowed in the class without prior approval. Failure to adhere to this rule will result in a “0” for that class period.

<table>
<thead>
<tr>
<th>Conduct of the Class and Care of the Facility</th>
<th>Please note the following rules for the conduct of the class.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Class will begin at the appointed time.</td>
<td>1. Class will begin at the appointed time.</td>
</tr>
<tr>
<td>2. Class is dismissed when so indicated by the instructor. Students are expected to be on time and stay throughout the entire class period. Leaving the classroom before the class is dismissed without prior approval from the instructor will result in a loss of participation for that class.</td>
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</tr>
<tr>
<td>3. All class members are required to keep the classroom in a clean and orderly manner to facilitate the number of students using it each day. Failure to maintain the classroom as requested by the instructor will result in a deduction in participation points for all class members for that date of instruction.</td>
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</tr>
<tr>
<td>4. Lecture Notes and Handouts will be sent to your official university email. Handouts distributed during a class period will not be distributed at any other time. It is the student’s responsibility to get a copy from another student or source.</td>
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</tr>
</tbody>
</table>

**Submission of Assignments:** Assignments are due at the start of the class session. No late work will be accepted without proper documentation.

**Formatting Documents:** Microsoft Word is the standard word processing tool used at PVAMU. If you are using other word processors, be sure to save the document in either the Microsoft Word, Rich-Text, or plain text format.

**Exam Policy:** Exams should be taken as scheduled. No makeup examinations will be allowed except under documented emergencies (See Student Handbook).

**Professional Organizations and Journals**

**References**

**University Rules and Procedures**
Disability Statement (See Student Handbook):

Students with disabilities, including learning disabilities, who wish to request accommodations in class should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator. Students should also inform the instructor of their need for accommodations immediately at the outset of the course so that a solution designed to being successful in class can be produced.

Academic Misconduct (See Student Handbook):

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of Academic Dishonesty:

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.
2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.
3. Fabrication: use of invented information or falsified research.
4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else’s words, ideas, or data as one’s own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic Misconduct (See Student Handbook)

The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either: (1) the instructor’s ability to conduct the class; (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual misconduct (See Student Handbook):

Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Student Academic Appeals Process

Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

Technical Considerations for Online and Web-Assist Courses

Minimum Hardware and Software Requirements

- Pentium with Windows XP or PowerMac with OS 9
- 56K modem or network access
- Internet provider with SLIP or PPP
- 8X or greater CD-ROM
- 64MB RAM
- Hard drive with 40MB available space
- 15” monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Netscape Communicator ver. 4.61 or Microsoft Internet Explorer ver. 5.0/plug-ins

Participants should have a basic proficiency of the following computer skills:

- Sending and receiving email
- A working knowledge of the Internet
- Proficiency in Microsoft Word
- Proficiency in the Acrobat PDF Reader
- Basic knowledge of Windows or Mac O.S.

Netiquette (online etiquette):

Students are expected to participate in all discussions and virtual classroom chats when directed to do so. Students are to be respectful and courteous to others in the discussions. Foul or abusive language will not be tolerated. When referring to information from books, websites or articles, please use APA standards to reference sources.

Technical Support:

Students should call the Prairie View A&M University Helpdesk at 936-261-2525 for technical issues with accessing your online course. The helpdesk is available 24 hours a day/7 days a week. For other technical questions regarding your online course, call the Office of Distance Learning at 936-261-3290 or 936-261-3282
Communication Expectations and Standards:
All emails or discussion postings will receive a response from the instructor, usually within 48 hours. Urgent emails should be marked as such. Check regularly for responses. You can send email anytime that is convenient to you, but the instructors will check their email messages continuously during the day throughout the work-week (Monday through Friday) during normal office hours. Instructors should respond to email messages during the work-week by the close of business (5:00 pm) on the day following their receipt of them. Emails received on Friday will be responded to by the close of business on the following Monday.

ACCREDITATION/ASSESSMENT CRITERIA Table No. 1-NAAB CRITERIA

This course is structured to assist the student meet the following criteria shown in Table No. 1 as established by the National Architectural Accreditation Board (NAAB). To view the entire list, go to the NAAB website, www.naab.org and access “2014 NAAB Conditions for Accreditation.”

<table>
<thead>
<tr>
<th>Performance Criteria:</th>
<th>Ability</th>
<th>Understanding</th>
<th>Course Learning Competencies (T, R, I)</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>T Taught</td>
<td>R Reinforced</td>
</tr>
</tbody>
</table>

REALM A: Critical Thinking and Representation
A.1. Professional Communication Skills (Ability)
A.2. Design Thinking Skills (Ability) ✓ ✓ ✓
A.3. Investigative Skills (Ability)
A.4. Architectural Design Skills (Ability) ✓ ✓ ✓
A.5. Ordering Systems (Ability)
A.6. Use of Precedents (Ability)
A.7. History and Global Culture (Understanding)
A.8. Cultural Diversity and Social Equity (Understanding)

REALM B: Building Practices, Technical Skills, and Knowledge
B.1. Pre-Design (Ability)
B.2. Site Design (Ability)
B.3. Codes and Regulations (Ability)
B.4. Technical Documentation (Ability)
B.5. Structural Systems (Ability)
B.6. Environmental Systems (Ability)
B.7. Building Envelope Systems and Assemblies (Understanding)
B.8. Building Materials and Assemblies (Understanding)
B.9. Building Service Systems (Understanding)
B.10. Financial Considerations (Understanding)

REALM C: Integrated Architectural Solutions
C.1. Research (Understanding) ✓ ✓
C.2. Integrated Evaluations and Decision-Making Design Process (Ability)
C.3. Integrative Design (Ability) ✓ ✓ ✓

REALM D: Professional Practice
D.1. Stakeholder Roles in Architecture (Understanding) ✓ ✓
D.2. Project Management (Understanding) ✓ ✓ ✓ ✓
D.4. Legal Responsibilities (Understanding)
D.5. Professional Conduct (Understanding)
This course is structured to assist the student meet the following criteria shown in Table No. 1 as established by the American Council for Construction Education (ACCE) Standards and Criteria for Accreditation. To view the entire list, go to the ACCE website, www.acce-hq.org and view the “Accreditation Procedures.”

<table>
<thead>
<tr>
<th>Course Learning Outcomes:</th>
<th>Competencies (T, R, I)</th>
<th>ACCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Create written communications appropriate to the construction discipline.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2. Create oral presentations appropriate to the construction discipline</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3. Create a construction project safety plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Create construction project cost estimates</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5. Create construction project schedules</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6. Analyze professional decisions based on ethical principles.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Analyze construction documents for planning and management of construction processes.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>8. Analyze methods, materials, and equipment used to construct projects.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>9. Apply construction management skills as a member of a multidisciplinary team.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>10. Apply electronic-based technology to manage the construction process.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>11. Apply basic surveying techniques for construction layout and control.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>13. Understand construction risk management.</td>
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<td></td>
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<tr>
<td>14. Understand construction accounting and cost control</td>
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<td></td>
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<tr>
<td>15. Understand construction quality assurance and control.</td>
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<td></td>
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<tr>
<td>16. Understand construction project control processes.</td>
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<tr>
<td>17. Understand the legal implications of contract, common, and regulatory law to manage a construction project.</td>
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<tr>
<td>18. Understand the basic principles of sustainable construction.</td>
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<td></td>
</tr>
<tr>
<td>19. Understand the basic principles of structural behavior.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Understand the basic principles of mechanical, electrical and piping systems.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In order to assure that you have read over this entire document you are required to sign the Statement of Agreement on the final page of the syllabus and return it at the start of the second class period. This will be our contract that you have read over the entire syllabus and that you understand what is expected of you in this class.
This schedule is subject to change as the semester proceeds in order to cover the most important material in the time allotted. Any revisions will be duly noted and announced in class. All referenced readings are taken from the required text.

<table>
<thead>
<tr>
<th>Registration/Assembly Dates</th>
<th>1</th>
<th>Dates exam scores will be posted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Dates</td>
<td></td>
<td>Holidays</td>
</tr>
<tr>
<td>Graduation Applications</td>
<td></td>
<td>Guest lectures</td>
</tr>
<tr>
<td>Dates for Exams</td>
<td></td>
<td>Project Team Workshop</td>
</tr>
</tbody>
</table>

### 16 WEEK CALENDAR

#### Week One: Topic

**January 13-17, 2020**

**Tuesday:** Course Intro and Policies  
**Thursday:** Introduction to BIM & Construction

**Chapter (s):** Chapter 1  
**Assignment (s):** (LAB-01) Revit Model

<table>
<thead>
<tr>
<th>University Events: ♦️</th>
<th>January 13, 2018 [Monday]</th>
<th>Tuition &amp; Fees Payment Due Date. Late Registration Fee Begins ($50.00)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>January 15, 2018 [Wednesday]</td>
<td>UNDERGRADUATE: LATE REGISTRATION/ADD COURSES/CHANGE COURSE SCHEDULE ENDS. LAST DAY TO CHANGE MAJOR OR ANY OTHER MATRICULATION CHANGE FOR SPRING 2019</td>
</tr>
</tbody>
</table>

#### Week Two: Topic

**January 20-24, 2020**

**Tuesday:** (LAB) Modeling to Match Construction Methods  
**Thursday:** Core Technologies and Software

**Chapter (s):** Chapter 2  
**Assignment (s):**

<table>
<thead>
<tr>
<th>University Events: ♦️</th>
<th>January 20, 2020 [Monday]</th>
<th>1</th>
<th>MARTIN LUTHER KING DAY (University Closed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>January 13-22, 2020 [Monday]</td>
<td>Attendance Reporting Period. Students who do not attend class during this period will have their courses removed and financial aid reduced or cancelled.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>January 23, 2020 [Thursday]</td>
<td>GENERAL STUDENT ASSEMBLY: All students to attend. (Date and Time to be announced/confirmed.)</td>
<td></td>
</tr>
</tbody>
</table>

#### Week Three: Topic

**January 27-30, 2020**

**Tuesday:** (LAB) Using Parts to Improve Model Accuracy  
**Thursday:** Collaboration and Interoperability

**Chapter (s):** Chapter 3  
**Assignment (s):** (LAB-02) Integrated BIM Model

<table>
<thead>
<tr>
<th>University Events:</th>
<th>January 29, 2020 [Wednesday]</th>
<th>CENSUS DATE (12TH CLASS DAY): COURSE RESERVATIONS CANCELLED FOR NON-PAYMENT.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LAST DAY TO WITHDRAW FROM COURSE WITHOUT ACADEMIC RECORD.</td>
<td></td>
</tr>
</tbody>
</table>

ARCH 4743  
BUILDING INFORMATION MODELING  
COURSE SYLLABUS  
PRAIRIE VIEW A&M UNIVERSITY  
SCHOOL OF ARCHITECTURE
### Spring 2020 Graduation Late Application Deadline

There will be NO exceptions to this deadline.

**January 30, 2020**

**NOTE:** Withdrawal from courses “With Academic Record” (W) begins; ends March 27, 2020.

### Week Four: Topic
**February 3-7, 2020**

*Tuesday: (LAB) Using 3D Views to Enhance Design Communication*

*Thursday: BIM for Owners and Facility Managers*

**Chapter (s):** Chapter 4

**Assignment (s):** (RP-01) Research Paper Outline References

**University Events:** February 4, 2020

20th Class Day Drop for Non-Payment of Tuition and Fees @ 5:00 p.m.

### Week Five: Topic
**February 10-14, 2020**

*Tuesday: (LAB) 4D Simulations and Construction Planning*

*Thursday: BIM for Architects and Engineers*

**Chapter (s):** Chapter 5

**Assignment (s):** (RP-02) 25% of the Full Report

**University Events:** February 12, 2020

Architecture/Digital Media Arts Career Fair

### Week Six: Topic
**February 17-21, 2020**

*Tuesday: (LAB) Segmenting Elements to Model Location for Scheduling Tasks*

*Thursday: Facilitators of BIM Adoption and Implementation*

**Chapter (s):** Chapter 8

**Assignment (s):** (LAB-03) Project Schedule Development

**University Events:**

### Week Seven: Topic
**February 24-28, 2020**

*Tuesday: (LAB) Using 4D Simulation for Materials Planning and Management*

*Thursday: BIM for Contractors*

**Chapter (s):** Chapter 6

**Assignment (s):** (RP-02) 50% of the Full Report

**University Events:**

### Week Eight: Topic
**March 2-6, 2020**

*Tuesday: (LAB) Creating and Comparing Conceptual Estimates*

*Thursday: BIM for Subcontractors and Fabricators*

**Chapter (s):** Chapter 7

**Assignment (s):** (RP-03) 75% of the Full Report

**University Events:**

### Mid-Term Exam
March 5-7, 2020 Thursday through Saturday

### Week Nine: Topic
**March 9-13, 2020**

**SPRING BREAK!**

**Chapter (s):**

**Assignment (s):**

**University Events:**

### Week Ten: Topic
**March 16-20, 2020**

*Spring Break Extended Due to COVID-19 Outbreak*

**Chapter (s):**

**Assignment (s):**
Thursday: Presentations Evaluations |
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<td>Chapter(s):</td>
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<td>Assignment(s):</td>
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<td>Thursday: (RP-Final) Full Report with PowerPoint Slides</td>
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<tr>
<th>University Events:</th>
<th>March 27, 2020 [Tuesday]</th>
<th>Final Day to Withdraw from Course(s) with Academic Record (“W”)</th>
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|                   | April 1, 2020 [Wednesday] | Founders Day/Honor Convocation  
(Date and Time to be announced/confirmed.) |

| Week Twelve: Topic | March 30-April 3, 2020 | Tuesday: (LAB) Reusing Preliminary Cost Estimates to Inform Design  
Thursday: (LAB) Creating Detailed Quantity Takeoffs |
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<td>Chapter(s):</td>
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<td>Assignment(s):</td>
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<td>Thursday: (LAB-04) Generating 4D Model</td>
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<tr>
<th>University Events:</th>
<th>April 10, 2020 [Friday]</th>
<th>Good Friday [Student holiday]</th>
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<td>April 13, 2018 [Monday]</td>
<td>NOTE! SUMMER AND FALL 2018 GRADUATION APPLICATION DEADLINE. There will be NO exceptions to this deadline.</td>
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| Week Thirteen: Topic | April 6-10, 2020 | Tuesday: (LAB) Adding Facilities Management Info to BIM Model Elements  
Thursday: The Future: Building with BIM |
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<td>Chapter(s):</td>
<td>Chapter 9</td>
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<td>Assignment(s):</td>
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<tr>
<th>University Events:</th>
<th>April 20, 2020 [Monday]</th>
<th>NOTE! PRIORITY REGISTRATION BEGINS FOR SUMMER TERM AND FALL 2020 SEMESTER.</th>
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| Week Fourteen: Topic | April 13-17, 2020 | Tuesday: (LAB) Using BIM Models to Track and Plan Preventive Maintenance  
Thursday: BIM Case Studies - Part 1 |
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<td>Chapter(s):</td>
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<td>Assignment(s):</td>
<td>Thursday: (LAB-05) Full Quantity Take-Off</td>
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| University Events: | April 20-24, 2020 | Tuesday: (LAB) Integrating BIM Models Asset Management and Tracking Systems  
Thursday: BIM Case Studies - Part 2 |
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<td>Assignment(s):</td>
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| Week Fifteen Topic | April 27-May 1, 2020 | Tuesday: Project Presentations  
(LAB-Final) Presenting Reports & 4D Rendered Animation  
Thursday: No Class |
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<td>April 27,2020 [Monday-Tuesday]</td>
<td>COURSE REVIEW DAY (Classes must convene and instructors will prepare students for Final Exams)</td>
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<td>Date</td>
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<tr>
<td>April 28, 2020</td>
<td>COURSE REVIEW DAY (Classes must convene and instructors will prepare students for Final Exams)</td>
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<td>LAST DAY OF CLASSES FOR SPRING 2020 SEMESTER</td>
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<td>LAST DAY TO WITHDRAW FROM UNIVERSITY FOR SPRING 2020 SEMESTER</td>
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<td>April 29-May 6, 2020</td>
<td>FINAL EXAMINATION PERIOD</td>
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<td>May 7, 2020</td>
<td>FINAL GRADES DUE FOR GRADUATING CANDIDATES</td>
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<td>May 9, 2020</td>
<td>COMMENCEMENT</td>
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<td>May 12, 2020</td>
<td>FINAL GRADES DUE FOR ALL STUDENTS</td>
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In order to assure that you have read over this entire document you are required to sign the Statement of Agreement on the final page of the syllabus and return it at the start of the second class period. This will be our contract that you have read over the entire syllabus and that you understand what is expected of you in this class.
STATEMENT OF AGREEMENT
I know that ARCH 4743 is not a Revit, Navisworks, or model making course, but to learn how to use them to better understand BIM and its applications in the construction industry. I have read the Course Syllabus for ARCH 4743 for the Spring Semester 2020, including the Class Lecture and Event Schedule, and agree to abide by the conditions for the class as spelled out in this document. My signature indicates my personal commitment to meeting the course objectives and succeeding in this educational endeavor.

________________________________________
Signature-Student

Student name (Please print neatly) Student ID # Date

________________________________________
Signature-Instructor

Instructors name Date

RETURN THIS PAGE FROM THE SYLLABUS TO THE INSTRUCTOR TO COMPLETE YOUR ENROLLMENT IN THIS COURSE.

Folder RECEIVED WITH STUDENT’S SIGNATURE: _______________________

☑ ENTERED INTO GRADE BOOK: ________________________________