Credit Hours: 3

Contact Hours: This is a 3-credit course, offered in accelerated format. This means that 16 weeks of material is covered in 8 weeks. The exact number of hours per week that you can expect to spend on each course will vary based upon the weekly coursework, as well as your study style and preferences. You should plan to spend 14-20 hours per week in each course reading material, interacting on the discussion boards, writing papers, completing projects, and doing research.

Faculty Information: Faculty contact information and office hours can be found on the faculty profile page.

COURSE DESCRIPTION AND OUTCOMES

COURSE DESCRIPTION:

CMG300 intends to teach students the theory and practice of construction management from conception through the end of the construction phase. This course is designed to give the students an overview of the knowledge, skills, tools, and techniques to direct construction projects towards their successful completion. It will provide an overview of the construction industry and its typical business relationships. The course will provide the foundational processes required for construction managers to implement different business practices and strategies to ensure construction projects can successfully be implemented. The course also provides an overview of the construction industry roles, responsibilities, and risks from perspectives of the key parties and stakeholders involved in construction projects. Other topics to be taught are project delivery systems and contract types, construction phases, planning and scheduling, coordination, time and cost control, supervision of project sites, productivity studies, safety and health. Case studies are utilized to explore the related issues and to provide real-world scenarios to reinforce the course's learning objectives and materials.

COURSE OVERVIEW:

This course teaches the fundamental skills that construction management students need to ensure they can successfully manage construction projects. This course is intended to introduce you to the basic components of construction management and provide you with the essential tools and skills you need to implement construction projects from the pre-construction and design phases to the project closure phase. At the completion of this course, you will be able to identify the importance of the construction industry and the main skills construction managers need to possess, including contract management, material and resource management, planning and scheduling, cost estimating and project control. You will also be introduced to topics such as construction project health, safety, security, and new directions in construction management.

COURSE LEARNING OUTCOMES:

1. Define the roles of the different participants in construction projects and identify the key activities during various stages of a construction project.

2. Compare and assess construction delivery systems and contract types.
3. Read bidding documents and perform bid tabulation.
4. Prepare job site administration and submittals, such as RFIs, purchase orders, schedule of value, change order requests, and payment applications.
5. Assess strategies for effective planning and control of construction projects.
6. Evaluate ways to assess labor and equipment productivity.
7. Identify and evaluate health and safety risks on construction sites.

PARTICIPATION & ATTENDANCE

Prompt and consistent attendance in your online courses is essential for your success at CSU-Global Campus. Failure to verify your attendance within the first 7 days of this course may result in your withdrawal. If for some reason you would like to drop a course, please contact your advisor.

Online classes have deadlines, assignments, and participation requirements just like on-campus classes. Budget your time carefully and keep an open line of communication with your instructor. If you are having technical problems, problems with your assignments, or other problems that are impeding your progress, let your instructor know as soon as possible.

COURSE MATERIALS

Required:

Halpin, D. W., Senior, B. A., & Lucko, G. (2017). *Construction management* (5th ed.). Hoboken, NJ: Wiley. ISBN: 9781119256809

Project Management Institute [PMI]. (2016). *Construction extension to the PMBOK® guide*. Newtown Square, PA: Project Management Institute. ISBN: 9781628250909. Retrieved from https://csuglobal.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1365626&site=ehost-live

NOTE: All non-textbook required readings and materials necessary to complete assignments, discussions, and/or supplemental or required exercises are provided within the course itself. Please read through each course module carefully.

COURSE SCHEDULE

Due Dates

The Academic Week at CSU-Global begins on Monday and ends the following Sunday.

- **Discussion Boards:** The original post must be completed by Thursday at 11:59 p.m. MT and peer responses posted by Sunday 11:59 p.m. MT. Late posts may not be awarded points.
- **Opening Exercises:** Take the Opening Exercise before reading each week's content to see which areas you will need to focus on. You may take these exercises as many times as you need. The Opening Exercises will not affect your final grade.

- **Mastery Exercises:** Students may access and retake Mastery Exercises through the last day of class until they achieve the scores they desire.
- **Critical Thinking:** Assignments are due Sunday at 11:59 p.m. MT.

WEEKLY READING AND ASSIGNMENT DETAILS

MODULE 1

Readings

· Chapter 1 in *Construction Management* (5th ed.)
· Chapters 1 & 2 in *Construction Extension to the PMBOK® Guide*

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Portfolio Reminder
Choose one of the following two assignments to complete for your course Portfolio Project. You will be working on milestones toward the completion of the option you select throughout the course

Option #1 – Construction Critique (Your Construction Firm)
Throughout the term you will be working on the same project (the first Portfolio Project milestone is due in Week 3). Your final Portfolio Project will be a compilation of your Portfolio assignments throughout the term. Start familiarizing yourself with the requirements for the Portfolio Project by reading the instructions provided for this assignment in the Module 8 Portfolio Project folder.

Option #2 - Residential Project (Revit Architecture)
Throughout the term you will be working on the same project (the first Portfolio Project milestone is due in Week 3). Your final Portfolio Project will be a compilation of your Portfolio assignments throughout the term. Start familiarizing yourself with the requirements for the Portfolio Project by reading the instructions provided for this assignment in the Module 8 Portfolio Project folder.

MODULE 2

Readings

· Chapter 2 in *Construction Management* (5th ed.)
· Chapter 12, Sections 12.1 & 12.3 in *Construction Extension to the PMBOK® Guide*

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Critical Thinking (70 points)
Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Construction Bonds

What are the three major types of construction bonds? Why are they required? Name three items that affect bonding capacity.

Requirements:
- Your paper should be three to four pages long, not including the required title page and reference page. Nor does the page requirement include any supplemental pages, should you use them, such as appendices.
- Properly organize your writing and include an introduction, headings/subheadings for the body of your work, discussion recommendations, and a conclusion.
- Format your entire paper in accordance with the CSU-Global Guide to Writing and APA.
- Support your statements by relying upon, properly incorporating, and citing at least one required or recommended reading for this week and two outside references (peer-reviewed, current scholarly articles published in the last five years). The CSU-Global Library is a good place to find these resources.

Option #2: Construction Documents

What is the purpose of the following documents in a construction contract?

       a. General conditions

       b. Special conditions

       c. Addendum

       d. Technical specifications

Requirements:
- Your paper should be three to four pages long, not including the required title page and reference page. Nor does the page requirement include any supplemental pages, should you use them, such as appendices.
- Properly organize your writing and include an introduction, headings/subheadings for the body of your work, discussion recommendations, and a conclusion.
- Format your entire paper in accordance with the CSU-Global Guide to Writing and APA.
- Support your statements by relying upon, properly incorporating, and citing at least one of this week's required or recommended readings and one outside reference (a peer-reviewed, current scholarly article published in the last five years). The CSU-Global Library is a good place to find these resources.

Portfolio Milestone (no submission)

Choose the milestone option that aligns with your selection in Module 1. You will be working on milestones toward the completion of the option you select throughout the course.

Option #1: Construction Critique (Your Construction Firm)

Throughout the term you will be working on the same project (the first Portfolio Project milestone is due in Week 3). Your final Portfolio Project will be a compilation of your Portfolio assignments throughout the term. Review the Portfolio Project requirements set forth in Module 3 and collect the information you need to complete this assignment. You will not submit anything this week for grading.

Option #2: Residential Project (Revit Architecture)

Throughout the term you will be working on the same project (the first Portfolio Project milestone is due in Week 3). Your final Portfolio Project will be a compilation of your Portfolio assignments throughout the term.

Directions:

Revit Architecture is an excellent building information modeling tool to use when communicating concepts that require spatial understanding. It can be used in the very early stages of a project design to communicate conceptual design as during the detail engineering and construction phases.

Autodesk software including Revit Architecture is freely available to students for educational purposes. See the Revit page on the Autodesk site for more information.

Install Revit Architecture 2018 on your computer and start familiarizing yourself with the application. The following course on Lynda.com is a great resource you can use: Revit 2018: Essential Training for Architecture (Imperial)

You will not submit anything this week for grading.

MODULE 3

Readings

· Chapter 4 in *Construction Management* (5th ed.)
· Chapter 12, Sections 12.2.9, 12.2.10, & 12.2.11 in *Construction Extension to the PMBOK® Guide*

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Critical Thinking (100 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Case Study

Choose one of the case studies discussed in the following document. Describe the project, its scope of work, and a synthesized summary of the case study. Then discuss your own lessons learned and evaluate the choice of the project delivery method identified in the case study. Make sure you provide the title and page number of the case you have chosen in the introduction section of your work.

Reference:

The American Institute of Architects [AIA]. (2010). Integrated project delivery: Case studies IPD case study. Retrieved from https://www.ipda.ca/site/assets/files/1111/aia-2010-ipd-case-studies.pdf

Requirements:
• Your paper should be three to four pages long, not including the required title page and reference page. Nor does the page requirement include any supplemental pages, should you use them, such as appendices.
• Properly organize your writing and include an introduction, headings/subheadings for the body of your work, discussion recommendations, and a conclusion.
• Format your entire paper in accordance with the CSU-Global Guide to Writing and APA.

- Support your statements by relying upon, properly incorporating, and citing at least one required or recommended reading from this week and two outside references (peer-reviewed, current scholarly articles published in the last five years). The CSU-Global Library is a good place to find these resources.

Option #2: Unbalanced Bids

Describe how a bid is unbalanced. What type of contract is implied? Provide a detailed example.

Requirements:
- Your paper should be three to four pages long, not including the required title page and reference page. Nor does the page requirement include any supplemental pages, should you use them, such as appendices.
- Properly organize your writing and include an introduction, headings/subheadings for the body of your work, discussion recommendations, and a conclusion.
- Format your entire paper in accordance with the CSU-Global Guide to Writing and APA.
- Support your statements by relying upon, properly incorporating, and citing at least one required or recommended reading from this week and two outside references (peer-reviewed, current scholarly articles published in the last five years). The CSU-Global Library is a good place to find these resources.

Portfolio Milestone (70 points)

Choose one of the following two assignments to complete for your course Portfolio Project. You will be working on milestones toward the completion of the option you select throughout the course

Option #1: Construction Critique (Your Construction Firm)

You will be working on the same project throughout the term. Your final Portfolio Project will be a compilation of your Portfolio assignments throughout the term.

Assume you are the president of a construction general contractor and you intend to promote your company and attract clients. You intend to prepare a marketing and prequalification package that, at a minimum, contains the following:

a. A one-page introductory letter on professionally developed letterhead that you have designed for your company. The letter properly introduces your firm, provides adequate contact information, identifies your company's areas of expertise, summarizes its past experience in performing as a general contractor, and provides other relevant and necessary information to describe why owner firms/clients should hire your firm for their construction projects. The letter is meant to function as a prequalification statement written in narrative form that describes why you believe your firm is a qualified general contractor.

b. A list of at least five potential qualifying questions that you would like to receive from owner firms/prospective clients. This list is not intended to be comprehensive (all-inclusive) but it is meant to be a complete list (i.e., properly satisfies the objectives) that demonstrates the merits of your company in a reasonable and appropriate manner. By properly responding to these questions, prepare a two-page document that provides insight about your firm. Out of these five questions, a minimum of three questions should not be covered by the content of the introductory letter referenced above.

Option #2 - Residential Project (Revit Architecture)

Create a sample Revit model for a one-story building, consisting of a minimum of three rooms and a living area, and upload the native Revit Architecture file to the assignment area in class. At this stage, adding exterior walls, levels, grids, and columns is adequate. See Chapter 1-3 of the Revit 2018: Essential Training for Architecture (Imperial) Lynda.com course (link provided in the assignment prompt in the Module 3 Materials folder).

Upload the native Revit Architecture file to the assignment folder on the class portal. In addition, submit a two-page narrative including a) summary of your experience with the use of the software application and some of the lessons learned in building your first model, and b) a recommendation for a construction delivery method and a justification of your choice compared with other project delivery methods.

MODULE 4

Readings

· Chapter 3, Section 3.2 in *Construction Extension to the PMBOK® Guide*
· Chong, H., & Wang, X. (2016). The outlook of building information modeling for sustainable development. *Clean Technologies & Environmental Policy*, *18*(6), 1877-1887. doi:10.1007/s10098-016-1170-7

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Critical Thinking (100 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Emerging Management Techniques

Choose one of the new emerging management techniques identified in Section 3.2.1.4 of the Construction Extension to the PMBOK® Guide, research the topic, and describe the construction industry's current use of this technology.

Requirements:
  • Properly organize your writing and include an introduction, headings/subheadings for the body of your work, discussion recommendations, and a conclusion.
  • Format your entire paper in accordance with the CSU-Global Guide to Writing and APA.
  • Your paper should be three to four pages long, not including the required title page and reference page. Nor does the page requirement include any supplemental pages, should you use them, such as appendices.
  • Support your statements by relying upon, properly incorporating, and citing at least one required or recommended reading from this week and two outside references (peer-reviewed, current scholarly articles published in the last five years). The CSU-Global Library is a good place to find these resources.

Option #2: New Technologies

Choose one of the new technologies identified in Section 3.2.1.1 of the Construction Extension to the PMBOK® Guide, research the topic and describe the construction industry's current use of this technology.

Requirements:
- Properly organize your writing and include an introduction, headings/subheadings for the body of your work, discussion recommendations, and a conclusion.
- Format your entire paper in accordance with the CSU-Global Guide to Writing and APA.
- Your paper should be three to four pages long, not including the required title page and reference page. Nor does the page requirement include any supplemental pages, should you use them, such as appendices.
- Support your statements by relying upon, properly incorporating, and citing at least one required or recommended reading from this week and two outside references (peer-reviewed, scholarly articles published in the last five years). The CSU-Global Library is a good place to find these resources.

Portfolio Milestone (60 points)
Continue working on the same project throughout the course. Your final Portfolio Project will be a compilation of your portfolio milestones throughout the course.

Option #1: Construction Critique (Your Construction Firm)
Choose a public project put out for open bid whose information and RFP are publicly available online or any other construction project to whose RFP you have access. In part, the intent of this assignment is to evaluate your skills in finding these resources. You need to search construction bid opportunities lists that local and federal agencies provide. You can also review some of the archived bids and find out the current status of those projects. Chapter Section 2.6 of the textbook identifies a few resources where construction bids are advertised. Research the building/project and identify the project type, the primary players, and other information.

Deliverable:
Prepare a narrative of a maximum three pages that answers the following questions:

1. What is the project, where is it located, and what is the project scope of work?
2. Who are the primary players on the project (e.g., owner, architect/designer, general contractor)?
3. How much was the contract for the building or project?
4. How long did the project take to build or will it take, given the completion schedule?
5. What are some modern methods of construction or emerging management techniques used (or that you recommend be used)?

Your paper should conform to CSU-Global Guide to Writing and APA.

Option #2 - Residential Project (Revit Architecture)
For the building project you are working on, continue to further develop the model.

Deliverables:

1. Locate interior walls, add doors and windows, plumbing fixtures, and wall joints as described in Chapter 4 of the Revit 2018: Essential Training for Architecture (Imperial) video on Lynda.com. (The video link is available in the assignment prompt in the Module 4 Materials folder.)
2. Upload the native Revit Architecture file to the assignment folder on the class portal.
3. Provide a narrative of a maximum two pages that describes the building, what you learned this week in using Revit Architecture, and your recommended modern method of construction or emerging management techniques. Explain your rationale for its appropriateness.

Your paper should conform to CSU-Global Guide to Writing and APA.

MODULE 5

Readings

·   Chapters 7 & 8 in *Construction Management* (5th ed.)
·   Chapter 6 in *Construction Extension to the PMBOK® Guide*
·   Brotherton, S. A., Fried, R. T., & Norman, E. S. (2008). Applying the work breakdown structure to the project management lifecycle. Paper presented at PMI® Global Congress 2008—North America, Denver, CO. Newtown Square, PA: Project Management Institute.

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Critical Thinking (100 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Work Breakdown Structures

Carefully read the assigned case study, then develop a deliverable and process-oriented work breakdown structures (WBSs) for the project described in the case study with a minimum of three layers of breakdown for each breakdown structure (read the interactive lecture and the references provided in the interactive lecture to learn more about deliverable- and process-oriented WBS). You can choose any tool to draw the WBS (e.g., PowerPoint > Insert Menu > SmartArt > Hierarchy; or you can use Visio, Excel or other tools).

Read Sections 1, 2, and 6 in Zhang, Liu, & Qin. (2016). Construction of a large-section long pedestrian underpass using pipe jacking in muddy silty clay: A case study. Tunneling and Underground Space Technology Incorporating Trenchless Technology Research, 60, 151-164.

Please review the PMSRC sections cited among the reading assignment (in the Interactive Lecture of Module 5) to find out more about some of the tools and software you can use to complete this assignment.

Please review the PMSRC sections cited among the reading assignment (in the Interactive Lecture of Module 5) to find out more about some of the tools and software you can use to complete this assignment.

Option #2: Activities Planning
Carefully read the assigned case study, then develop a project schedule with a minimum of twenty activities for the project described in the case study. Make sure you properly develop the schedule logic.

Read Sections 1, 2, and 6 in Zhang, Liu, & Qin. (2016). Construction of a large-section long pedestrian underpass using pipe jacking in muddy silty clay: A case study. Tunnelling and Underground Space Technology Incorporating Trenchless Technology Research, 60, 151-164.

Project scheduling software application options
To develop the project schedule, feel free to use any project scheduling software to which you have access. You are encouraged to use the trial version of Microsoft Project (MSP) or Primavera P6 Professional Project Management (P6). If you choose MSP, you can watch the first four chapters of the Microsoft Project 2016 Essential Training course on Lynda.com to learn how project schedules can be developed. However, to develop the project schedule, you can also use any one of many open-source applications recommended in the following link, though preferably ProjectLibre. (Links to these resources are provided in the assignment prompt in the Module 5 Materials folder.)

Please review the PMSRC sections cited among the reading assignment (in the Interactive Lecture of Module 5) to find out more about some of the tools and software you can use to complete this assignment.

Portfolio Milestone (60 points)
Continue working on the same project throughout the course. Your final Portfolio Project will be a compilation of your portfolio milestones throughout the course.

Option #1: Construction Critique (Your Construction Firm) Proposal
Review the publicly available bid documents and documents such as advertisement to bid, instruction to bidders, insurance requirements, and bid forms. Then prepare a proposal of a minimum of four pages (excluding cover page and appendices, if any) in response to the RFP document outlining your strategy in implementing the proposed project (recommended delivery method and contract types), the capabilities of your firm related to implementing this specific project, and steps that you would take to implement the project presented in the form of a summary or master project schedule.

Your paper should conform to the CSU-Global Guide to Writing and APA.

Project scheduling software application options
To develop the project schedule for your project, use any of the software applications outlined below:
1- Powerproject: As a CSU-Global student, a free student version of Powerproject can be provided to you for educational use. Contact the Program's lead faculty Amin Terouhid (Seyyed.terouhid@csuglobal.edu) to request a license. The process of issuing a license may take up to 6 working days, please have that in mind in making your request and plan accordingly.
2- Use Microsoft Project (MS Project). If you choose this option, you need to purchase the application. Trial versions may be available for a limited time (less than 30 days) or might be not available at all.

3- Use an educational or trial version of Primavera P6 Professional Project Management (P6): The trial or educational versions might be available for a limited time (typically about 30 days); therefore, download them judiciously to ensure you have proper access to the application to complete your assignment.

4- You also have the option to use ProjectLibre as an open-source project scheduling application (preferred) or any other open-source applications with project scheduling features

Irrespective of the computer program you choose, instead of submitting the native files, you need to insert a snapshot of your work into your submission or convert what you've developed using the computer program to a PDF file, and incorporate that as an appendix to your submission.

Option #2 - Residential Project (Revit Architecture)
Continue working on your Revit Architecture model and further develop the model.

Deliverables:
Create floor, roof and ceiling, and add openings as described in Chapter 6 of the Revit 2018: Essential Training for Architecture (Imperial) video on Lynda.com. (Link in the assignment prompt in the Module 5 Materials folder.)
1. Upload the native Revit Architecture file to the assignment folder on the class portal.
2. Provide a narrative of a maximum two pages that describes what you learned this week in using Revit Architecture, a summary or master project schedule, and a brief narrative that explains the main steps shown in the schedule to complete the project.

Your paper should conform to CSU-Global Guide to Writing and APA.

Project scheduling software application options
To develop the project schedule for your project, use any of the software applications outlined below:
1- Powerproject: As a CSU-Global student, a free student version of Powerproject can be provided to you for educational use. Contact the Program's lead faculty Amin Terouhid (Seyyed.terouhid@csuglobal.edu) to request a license. The process of issuing a license may take up to 6 working days, please have that in mind in making your request and plan accordingly.
2- Use Microsoft Project (MS Project). If you choose this option, you need to purchase the application. Trial versions may be available for a limited time (less than 30 days) or might be not available at all.
3- Use an educational or trial version of Primavera P6 Professional Project Management (P6): The trial or educational versions might be available for a limited time (typically about 30 days); therefore, download them judiciously to ensure you have proper access to the application to complete your assignment.
4- You also have the option to use ProjectLibre as an open-source project scheduling application (preferred) or any other open-source applications with project scheduling features

Irrespective of the computer program you choose, instead of submitting the native files, you need to insert a snapshot of your work into your submission or convert what you've developed using the computer program to a PDF file, and incorporate that as an appendix to your submission.

MODULE 6

Readings

· Chapters 15, 16, & 19 in *Construction Management* (5th ed.)

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Portfolio Milestone (60 points)

Continue working on the same project throughout the course. Your final Portfolio Project will be a compilation of your portfolio milestones throughout the course.

Option #1 – Construction Critique (Your Construction Firm)

At this point, your research and paper should be largely documented and nearly completed. This week, complete a narrative of a minimum four pages that describes:

1. Project background and scope
2. Project delivery method and contract type
3. Project progress
4. Project bidding and financing process
5. Resource and material management considerations
6. The key elements of your proposal (see the Module 5 Portfolio Milestone)

As part of the project progress component, provide a minimum of five photos of the project as it progressed. If you are documenting an in-progress project, try to include at least weekly photos and date them. If the project has been completed, a good source for photos is the contractor's or owner's website. If the project has not been started, find photos online that reasonably show the construction means and methods typically used in the type of project you have chosen.

Make sure you describe each of the photos and the construction means and methods shown in each photo and include your observations about the process. Your paper should conform to the CSU-Global Guide to Writing and APA.

Option #2 – Residential Project (completed 3D model)

Continue working on your Revit Architecture model and further develop the model.

Deliverables:

1. Add stairs and rooms as described in Chapters 7 and 10, respectively, use view templates and create a minimum of two different plans as described in Chapter 9. View Templates in the Revit 2018: Essential Training for Architecture (Imperial) videos on Lynda.com (link provided in the assignment prompt in the Module 6 Materials folder).
2. Upload the native Revit Architecture file to the assignment folder on the class portal.
3. Provide a narrative of a maximum two pages to describe the building components, what you learned this week in using Revit Architecture, and resource and material management considerations particularly relevant to the building model you have created.

Your paper should conform to the CSU-Global Guide to Writing and APA.

MODULE 7

Readings

· Chapter 7 in *Construction Extension to the PMBOK® Guide*
· Chapters 17 & 18 in *Construction Management* (5th ed.)

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

MODULE 8

Readings

· Chapter 14, Sections 14.1, 14.3, & 14.4 in *Construction Extension to the PMBOK® Guide*
· Chapter 20 in *Construction Management* (5th ed.).

Opening Exercise (0 points)

Discussion (25 points)

Mastery Exercise (10 points)

Portfolio Project (100 points)
Continue working on the same project throughout the course. Your final Portfolio Project will be a compilation of your portfolio milestones throughout the course.

Option #1: Construction Critique (Your Construction Firm)
For your Portfolio Project, you will assume the role of a designer to complete architectural plans utilizing Revit software. You have submitted milestones that will be used toward your project in Modules 3, 4, 5, and 6. You can review the milestones in their module folders. Ensure that you have incorporated any feedback from your instructor in your final project.

Your Portfolio Project should include:
- a letter to introduce your firm (Module 3)
- five qualifying questions for the owner and/or A/E and response (Module 3)
- identification of the project and location (Module 4)
- the primary project players (Module 4)
- the contract amount and project timeline (Module 4)
- the construction methods or management techniques you would recommend (Module 4)
- a project proposal outlining your strategy and contract types (Module 5)
- your firm's capabilities and steps for project implementation (Module 5)
- a project schedule and activities timeline (Module 5)
- your project background and scope (Module 6)
- your project delivery method and contract type (Module 6)

- your project bid and financing process (Module 6)
- the key elements of your proposal (Module 6)
- Resource and material management considerations (Module 6)
- Progress photos (Module 6)
- recommended practices in the areas of safety, health, and environmental management, as well as the minimum safety, health, and environmental management requirements for the project your firm is undertaking (Module 8)

Your Portfolio Project should also:
- include a Reference Page with at least 5-10 scholarly or peer-reviewed sources from the CSU-Global Library.
- be 10-12 pages long
- be well-written and conform to the CSU-Global Guide to Writing and APA.

Option #2: Residential Project Design (Revit Architecture)

For your Portfolio Project you will assume the role of president of a construction general contractor. While this list may look daunting, you will be submitting milestones in Modules 3, 4, 5, and 6 to work down the lists at a more manageable pace. You can review those milestones in their weekly folders. As you refine your portfolio project, ensure that you have incorporated any feedback from your instructor in your final project.

Your Portfolio Project should include:

1. Revit design for a building that includes:
- exterior walls, levels, grids, and columns (Module 3)
- interior walls, add doors and windows, plumbing fixtures, and wall joins (Module 4)
- floor, roof and ceiling, and openings (Module 5)
- stairs, rooms, and two view templates (Module 6)

2. Narrative that includes:
- the construction delivery method you recommend, justified by comparing it with other project delivery methods (Module 3)
- your recommended modern method of construction or emerging management technique and your rationale for its appropriateness (Module 4)
- a summary or master project schedule, and a brief narrative that explains the main steps shown in the schedule to complete the project (Module 5)
- an overview of material management considerations particularly relevant to the building model you have created (Module 6)
- the steps you used to complete your project (compiled along the way)
- recommended practices in the areas of safety, health, and environmental management, as well as the minimum safety, health, and environmental management requirements for the project your firm is undertaking (Module 8)

Your Portfolio Project should also:

- provide images of your building's design during all steps of development
- include at least 5-10 scholarly or peer-reviewed sources from the CSU-Global Library to support your narrative.
- be well written and conform to the CSU-Global Guide to Writing and APA.

COURSE POLICIES

Course Grading

20% Discussion Participation
0%   Opening Exercises
8%   Mastery Exercises
37% Critical Thinking Assignments
35% Final Portfolio Project

Grading Scale	
A	95.0 – 100
A-	90.0 – 94.9
B+	86.7 – 89.9
B	83.3 – 86.6
B-	80.0 – 83.2
C+	75.0 – 79.9
C	70.0 – 74.9
D	60.0 – 69.9
F	59.9 or below

IN-CLASSROOM POLICIES

For information on late work and incomplete grade policies, please refer to our **In-Classroom Student Policies and Guidelines** or the Academic Catalog for comprehensive documentation of CSU-Global institutional policies.

Academic Integrity
Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Academic dishonesty includes cheating, fabrication, facilitating academic dishonesty, plagiarism, reusing /repurposing your own work (see *CSU-Global Guide to Writing and APA* for percentage of repurposed work that can be used in an assignment), unauthorized possession of academic materials, and unauthorized collaboration. The CSU-Global Library provides information on how students can avoid plagiarism by understanding what it is and how to use the Library and Internet resources.

Citing Sources with APA Style
All students are expected to follow the *CSU-Global Guide to Writing and APA* when citing in APA (based on the APA Style Manual, 6th edition) for all assignments. For details on CSU-Global APA style, please review the APA resources within the CSU-Global Library under the "APA Guide & Resources" link. A link to this document should also be provided within most assignment descriptions in your course.

Disability Services Statement
CSU-Global is committed to providing reasonable accommodations for all persons with disabilities. Any student with a documented disability requesting academic accommodations should contact the Disability Resource Coordinator at 720-279-0650 and/or email ada@CSUGlobal.edu for additional information to coordinate reasonable accommodations for students with documented disabilities.

Netiquette
Respect the diversity of opinions among the instructor and classmates and engage with them in a courteous, respectful, and professional manner. All posts and classroom communication must be conducted in accordance with the student code of conduct. Think before you push the Send button. Did you say just what you meant? How will the person on the other end read the words?

Maintain an environment free of harassment, stalking, threats, abuse, insults, or humiliation toward the instructor and classmates. This includes, but is not limited to, demeaning written or oral comments of an ethnic, religious, age, disability, sexist (or sexual orientation), or racist nature; and the unwanted sexual advances or intimidations by email, or on discussion boards and other postings within or connected to the online classroom. If you have concerns about something that has been said, please let your instructor know.