



MARK AUSTIN BUILDING

DEPARTMENT OF

DESIGN & CONSTRUCTION MANAGEMENT

Table of Contents

- 02** General Information (program retention/starting salary)
What is Construction Management (CM) and Virtual Design Construction (VDC)?
What Can I Do With My Degree?
- 03** How Do I Find an Internship or Full-Time Job?
- 04** Do the Faculty Have Real World Experience?
What Courses Should I Take My First Semester?
- 05** Which Path Is For You?
Transfer Credits
- 06** Why Do I Need to Take General Education and Religion Courses?
- 07** Computer and Software Suggestions
What is the Architecture and Construction Management Society?



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Welcome to Design and Construction Management! My name is Mike Sessions. I currently serve as the Design and Construction Management Department Chair. I wish I could meet with you individually and share some thoughts about the Design and Construction Management program, but it would be difficult. The program has 900+ students and is growing because there is a high demand for our graduates and our graduates can pursue a number of careers. This letter includes a number of thoughts I would share with you if we were to meet in person. Use the table of contents below to best navigate the letter.

General Information

You are beginning an exciting and fulfilling journey that will bring you many years of satisfaction. In this letter, I hope to provide you with insights into the programs offered by our department, give you an introduction to types of jobs you might expect upon graduation, and provide you with a few other helpful tips.

You might like to know that 94% of students who declare a Design or Construction Management (DCM) major stay in the program and do not change their major. No other program in the college has as many students who love what they are doing and who decide that they made the right choice. In addition, our faculty have the second highest student satisfaction rating in the college. Within the college, the DCM department is essentially tied with Computer Science as having the highest rate of employment upon graduation.

The starting salary of our typical graduate is around \$70,000. Starting salaries depend on your experience and location. For example, some graduates have chosen to go back to their small hometown and they might earn in the fifty to sixty thousand range while other graduates have chosen “to move to the big city” and they received offers in the seventy-five to eighty thousand range. A few students have worked in construction for a number of years and their offers are higher, which I’m sure comes as no surprise to you.

What Can I Do With My Degree?

There are four primary degrees offered by our department:

- B.S. in Construction Management
- B.S. in Virtual Design and Construction
- AAS in Architecture
- AAS in Construction Superintendency

These degrees provide you with many and varied career opportunities. Some of the more popular opportunities are listed below.

What is CM and VDC?

Some students think a degree in Construction Management (CM) will lead to a career in the trades, such as a carpenter or a plumber. A CM degree is just what it sounds like, the profession of managing construction projects. Construction Managers guide a construction project from conception to completion. While Construction Managers spend time working in an office, they also spend a great deal of time in the field overseeing projects. Despite perceptions, the field of construction isn’t all about heavy, hands-on labor, nor is it strictly a man’s world as more and more women continue to enter this growing and dynamic field.

You may be interested in our Virtual Design and Construction Degree (VDC). This degree prepares you to work as a BIM/VDC Engineer. It also provides good preparation for students who wish to peruse graduate school to become an architect. VDC Engineers create and use 3D computer models to do things such as organize building components, assist in the planning of a construction project, enhance estimating capabilities, and communicate the desired results of the project to the owner or others using Virtual Reality and other techniques. This is a dynamic and rapidly growing field that provides opportunities in the offices of contractors, subcontractors, and designers.

1. Project Engineer with a view of being a Project Manager (oversee the business side of a construction project)
2. Field Engineer with the aspiration of being a Superintendent (oversee the field and production side of a project)
3. Virtual Design and Construction Engineer/Manager (design, plan and coordinate construction in a three-dimensional electronic space)
4. Pre-Construction Services such as estimating or marketing
5. Scheduler
6. Work in land and property development
7. Owner's Project Manager (Owner's Rep)
8. Safety Engineer/Manager
9. Governmental such as OSHA Inspector or Local Building Official
10. Work for a Surety
11. Facilities Management
12. Head to law school and become a construction lawyer or specialize in contract law
13. Head to a Masters in Architecture with the intent of becoming an Architect
14. Get an MBA (we have an agreement with ISU that may be of interest if you are heading in this direction)
15. Obtain a Masters in Real Estate Development (we have an agreement with the UofU that may be of interest if you are headed in this direction)
16. Run your own General Contracting company.

This list is just a start to the possibilities you will have after you graduate.

How Do I Find an Internship or Full-Time Job?

The DCM faculty do not believe their only job is to teach you about design and construction; they also believe it is important to prepare you to make an immediate contribution to your chosen profession. They are so confident in you and in your ability to make an immediate contribution that they work hard to ensure you are introduced to many employers long before you graduate. Here are some of the things your faculty do to ensure you have many intern and career opportunities.

1. SEMINAR

There is a "seminar" held every Thursday from 11:30 AM -12:30 PM. The department hosts an industry professional who speaks in a seminar about a project or other interesting development in the industry. Presenters come to BYU-Idaho from all over the country. Many times, these professionals hold an information session about their company the evening after the seminar and interview students for internships and full-time jobs the next day.

2. GOLF

A department golf tournament is held. Thirty-two companies participated in this golf tournament where students were paired up with a company representative – great time to rub shoulders with a potential employer.

3. FALL INDUSTRY BANQUET

With six students and one industry professional at each table, we enjoy a nice meal in the Taylor building. Following the meal, the industry guests' man their booths for a mini-career fair that was attended this year by 32 organizations. We plan to have 40 companies participate this Fall.

4. EXPEDITIONS

Every semester one or two expeditions are organized by the department. Seven to ten students and a faculty member hit the road to visit design and construction companies in places like Arizona, Washington, Utah, Texas and California. It is an opportunity to see projects, be hosted by and see a company's headquarters, and provide a potential employer with a resume.

5. COMPETITIONS

There are two major competitions students and faculty attend each year. One is the NAHB competition. The NAHB convention is the largest builder show in the world and students have an opportunity to meet with and show off their skills to the top homebuilding firms in the country at this convention. The ASC competition is the second event you can attend, and it boasts the largest construction career fair in the nation. There were over 125 of the largest construction companies in the nation at the fair last year. Students compete against other students and quite often the audience is made up of potential employers who you will meet at the career fair. Our students generally walk away from the experience at ASC having participated in three or more interviews for internships or full-time employment.

What Courses Should I Take My First Semester?

The curriculum has been designed so you take a few courses in design and in construction management before deciding which DCM career path you would like to take – and these recommended individual courses are applicable to and required to graduate with either a CM or a VDC degree.

Do the Faculty Have Real World Experience?

There are three full-time licensed Architects in the department who worked a number of years in the design profession. Several of the CM faculty have owned successful construction or construction related companies. All of the CM faculty have managed projects such as high-tech manufacturing facilities, remodeled homes, constructed commercial buildings, designed temples, managed high-rise construction, and designed for university campuses.

Which Path Is For You?

THE FOLLOWING ARE RECOMMENDED COURSES FOR THE FIRST YEAR IF YOU THINK YOU WANT TO PURSUE A B.S. IN CONSTRUCTION MANAGEMENT OR THE AAS IN CONSTRUCTION SUPERINTENDENCY.

1ST SEMESTER

- ARCH100: Introduction to the Industry
- CONST120: Structural Systems
- ARCH190: BIM I
- ARCH270: Construction Documents
- 1 General Education course
- 1 religion course
- GE101: Freshman Seminar

2ND SEMESTER

- CONST235: Building Systems – (CONST120 and ARCH270 are prerequisites)
- CONST220: Construction Safety – (Currently 320)
- CONST285: Estimating – (Currently CONST330. CONST120 is a prerequisite)
- English 150 or other General Education course
- 1 religion course
- CONST298: 1st Internship

OFF TRACK

- CONST298: 1st Internship

THE FOLLOWING ARE RECOMMENDED COURSES FOR THE FIRST YEAR IF YOU THINK YOU WANT TO PURSUE A VIRTUAL DESIGN AND CONSTRUCTION CAREER.

1ST SEMESTER

- ARCH100: Introduction to the Industry
- CONST120: Structural Systems
- ARCH190: BIM I
- ARCH270: Construction Documents
- 1 General Education course
- 1 religion course

2ND SEMESTER

- CONST235: Building Systems – (CONST120 and ARCH270 are prerequisites)
- ARCH120: Computer Aided Design
- CONST285: Estimating – (Currently CONST330. CONST120 is a prerequisite)
- English 101 or other General Education course
- 1 religion course

OFF TRACK

- CONST298: 1st Internship

*See the BYU-I Course Catalog for expanded course descriptions

If you have questions regarding classes, contact your Academic Advisor in the College of Physical Sciences and Engineering:

(208) 496-9880

cpseadvising@byui.edu

Transfer Credits

If you have transfer credits, please contact advising at 208-496-9880 to discuss how they may apply towards your degree or general education.

Why Do I Need To Take General Education and Religion Courses?

While we are on the topic of scheduling courses, let's talk a little about General Education and Religion classes. First thing we recommend is that you schedule about one General Education and one Religion course every semester. We do not recommend that you try to complete all your General Education and Religion courses in the first year and a half and then attempt to complete your major courses the next two and a half years. You may find the major courses require more time to complete than do General Education and Religion so spread out General Education and Religion courses throughout your time here.

Second, General Education and Religion courses are just as important as are your major courses. Let's take for example the English courses. You may think English courses are a waste of time for the kind of work you will be doing. Nothing is farther from the truth. Construction Managers and VDC Managers write a lot. They document job status, write change orders, write scopes of work, receive and send tons of emails, and the list goes on. In our industry, those who write well are considered smarter and more capable than those who do not write well. If we did not have an English 101 and English 301 course required in General Education, you would be required to take a couple of English courses offered by the DCM department and the department courses would be intense.

Another example is math. Maybe you are thinking that math is something estimators and engineers use, but is not going to be all that applicable to your career. Construction and VDC professionals use math all of the time. Estimators may put together the initial estimate for a project, including taking off quantities, areas, and sometimes volumes, but after the initial estimate is complete and the job awarded, almost all estimating will be done by the project team. Current productivity rates will be calculated by the project team. Quantities of material to order, including waste factors, will be calculated by the project team. The quantity of soil cut-and-fill will likely be calculated by the project team. All change-orders, unless they are very large, will be calculated by the project team. Sizes, conversions, and many other things will be estimated by the project team.

I think you know why it is important to take religion courses. You take them because you want to become a disciple leader. You are not here to just become a Construction Manager or a Virtual Design Manager. The Lord provided you with this opportunity to attend BYU-Idaho, an opportunity very few will have during their lifetime. He provided you with this opportunity because He knows you will be a leader. He is giving you an opportunity to prepare yourself to lead in the business world and in the church. If you want, you will be an influence for good, peace, and for the growth and happiness of your family and others.

Your influence will be the strongest and most significant as you live worthy and have the Spirit to guide you. You matter, so prepare yourself to be what the Lord wants you to be. The formula for spiritual development is to read your scriptures, say your prayers, be obedient, and serve one another. This magnificent place of learning, a University set up and overseen by the Lord, helps you set a pattern of applying this formula in your life now and in the future.

Computer and Software Suggestions

HARDWARE

Students will use a laptop in a number of courses. It is recommended you purchase a PC and not a MAC. Some of the software used in our industry does not work well on the MAC platform.

SPECIAL REQUIREMENTS

The Following information is for students in the VDC program who wish to install Lumion or SketchUp on their computer. Having these programs on your computer is not required.

Lumion Recommended System Requirements (As of 12/19/2018)

GRAPHICS CARD

Minimum 8,000 Pass Mark points with 6GB memory or more, compatible with DirectX11 or later and with the latest driver installed. Rendering movies in 4K resolution (3840x2160) requires a minimum of 6GB dedicated graphics card memory. Please note that Lumion does not run any faster with 2 graphics cards. Click [here](#) (Links to an external site.) to see how to select a graphics card for Lumion.

15 OR BETTER PROCESSOR

Large HD Storage

15" or larger monitor is recommended. The ability to add a second monitor is suggested.

SOFTWARE

Windows, Excel, MSWord, and PowerPoint

A number of classes use Bluebeam for blueprint reading, takeoffs, and other items. A full version of Bluebeam can be purchased at a deep student discount. Students who do not wish to purchase Bluebeam can download a full version of Bluebeam and receive a free-semester long license from faculty.

CPU (PROCESSOR)

As high a base and boost GHz value as possible, ideally 4.0+ GHz base/boost speed with 4 cores or more. A lower GHz value may act as a bottleneck for fast graphics cards such as the Nvidia GTX 1080 Ti and RTX 2080 Ti. More CPU cores than 4 will not make a difference. CPUs such as the i7-9700K or the i7-8700K with 4.0+ GHz are a good choice.

Operating System

64-bit Windows 10 with all updates installed.

What is the Design and Construction Management Society?

BYU-Idaho's Department of Design and Construction Management sponsors a well-established student society. The Design and Construction Management Society helps students connect with their peers through mentoring opportunities, construction site visits, and activities and socials. The DCMS also provides educational experiences through service opportunities, career exploration expeditions, student competitions, and cover letter and resume cafés. The DCMS prides itself in promoting the Design and Construction Management program and its graduates to industry members. All are encouraged to become a member (\$15 per semester fee) and participate in the variety of events, activities, food and other opportunities offered to help students connect with industries!

Maybe I did not answer every question you have about the DCM program and opportunities, but I hope I covered a few. If you have more questions, please contact myself or a faculty member and we will do our best to help.

Enjoy the semester. If you have any other questions, please contact me via phone call or email.

Shawn Jensen

BYU-Idaho Campus Map

Construction Management classes are primarily held in the Austin building.

