

Construction Management Employers Survey Results 2019-2020

55 Respondent's

NOTE: Not all respondents answered every question

1	What type of work does your company perform?	Commercial Building	Industrial	Heavy Civil	Residential	Specialty (Sub-contractor)	Other
		33	6	10	2	4	6
		54.1%	9.8%	16.4%	3.3%	6.6%	9.8%
Other Includes: Consulting, Marine, Multi-Family, Rail, Solar							

2	Are you a CSU, Chico CMGT graduate?	Yes	No
		21	19
		52.5%	47.5%

3	Approximate number of CSUC CMGT graduates you supervise?	1-5	6-10	11-25	26-50	More than 50
		26	9	4	0	0
		74.3%	25.7%	11.4%	0.0%	0.0%

4	Does your organization have a rotation or other type of training for new CMGT graduates?	Yes	No
		30	40
		42.9%	57.1%

5	Does your organization provide support for continuing education of employees (including grad school)?	Yes	No
		33	7
		82.5%	17.5%

6	Does your organization encourage employees to seek a contractors' license?	Yes	No
		6	34
		15.0%	85.0%

7	Does your organization have a matching gift program for charitable donations by employees?	Yes	No
		17	22
		43.6%	56.4%

In order for our degree program to maintain currency with the software programs used in the industry, and specifically by your firm, please indicate which are your primary software application for each of the following.

8	Estimating	OST	HCSS	Timberline	Excel	WinEst	Bluebeam
		14	7	6	5	4	3
		25.0%	12.5%	10.7%	8.9%	7.1%	5.4%
		BuildConnect	Sage	CostX	QuikBid	Autodesk	Other
		3	0	2	2	2	8
		5.4%	0.0%	3.6%	3.6%	3.6%	14.3%
Others Include 1 each for: SharpSoft, Accubid, Smart Bid, ProEst, MC2, Sage, Plan Swift							

9	Scheduling	P6	MS Project	Excel	Vplanner	Asta	Syncro
		27	14	2	1	1	1
		58.7%	30.4%	4.3%	2.2%	2.2%	2.2%

10	Project Management	Procore	Vista/Viewpoint	Prolog	PlanGrid	Primavera	Other
		14	5	3	2	2	5
		45.2%	16.1%	9.7%	6.5%	6.5%	16.1%
Others Include 1 each for: SCMIC, HeavyJob, MS Axis, Excel, Timberline							

11	Modeling	Navis	Revit	BIM360	ACAD 3D	Agtek	Other
		11	10	7	3	3	6
		27.5%	25.0%	17.5%	7.5%	7.5%	15.0%
Others Includes 2 each for Trimble, BIM Glue, and 1 each for Plannetry, Tekla							

12	Paperless Workflows	Procore	PlanGrid	Vista/Viewpoint	Bluebeam	Prolog	Other
		7	5	4	4	2	10
		21.9%	15.6%	12.5%	12.5%	6.3%	31.3%
Others Include 1 each for BIM360, Egnite, Sage, Adobe, MS Axis, CMiC, Project Sight							

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In order for our degree program to maintain currency with the software programs used in the industry, and specifically by your firm, please indicate which are your primary software application for each of the following.

13	Punchlist Work	PlanGrid	Procore	Bluebeam	Excel	HCSS	Other
		13	11	4	4	1	3
		36.1%	30.6%	11.1%	11.1%	2.8%	8.3%
	Others Include 1 each for Project Sight, Viewpoint, CMiC						

14	Construction Drawing Management	PlanGrid	Procore	Bluebeam	HCSS	Vista/Viewpoint	Project Sight
		13	13	6	2	1	1
		36.1%	36.1%	16.7%	5.6%	2.8%	2.8%
	Other Includes:						

Student Learning Outcomes

	Our accreditation agency, The American Council for Construction Education, has established Student Learning Outcomes (SLO) that set the minimal skills and knowledge Chico State Construction Management students should possess upon graduation. In order for our degree program to determine the level of our student's preparedness, please rate how the students you supervised based upon the following skill sets.	Very Unprepared (1)	Unprepared (2)	Average (3)	Prepared (4)	Very Prepared (5)	Average Score 1-5 Scale
15	1. Create written communications appropriate to the construction discipline.	0 0.0%	1 2.9%	14 41.2%	16 47.1%	3 8.8%	3.62
16	2. Create oral presentations appropriate to the construction discipline.	0 0.0%	2 5.9%	9 26.5%	19 55.9%	4 11.8%	3.74
17	3. Create a construction project safety plan.	0 0.0%	4 11.8%	21 61.8%	8 23.5%	1 2.9%	3.18
18	4. Create construction project cost estimates.	0 0.0%	9 26.5%	17 50.0%	8 23.5%	0 0.0%	2.97
19	5. Create construction project schedules.	0 0.0%	5 14.7%	19 55.9%	9 26.5%	1 2.9%	3.18
20	6. Analyze professional decisions based on ethical principles.	0 0.0%	1 2.9%	6 17.6%	25 73.5%	2 5.9%	3.82
21	7. Analyze construction documents for planning management of construction processes.	0 0.0%	2 5.9%	10 29.4%	19 55.9%	3 8.8%	3.68
22	8. Analyze methods, materials, and equipment used to construct projects.	0 0.0%	2 6.1%	12 36.4%	18 54.5%	1 3.0%	3.55
23	9. Apply construction management skills as a member of a multidisciplinary team.	0 0.0%	0 0.0%	7 21.9%	17 53.1%	8 25.0%	4.03
24	10. Apply electronic based technology to manage the construction process.	1 2.9%	0 0.0%	7 20.6%	15 44.1%	11 32.4%	4.03
25	11. Apply basic surveying techniques for construction layout and control.	3 9.1%	5 15.2%	20 60.6%	5 15.2%	0 0.0%	2.82
26	12. Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.	0 0.0%	4 11.8%	17 50.0%	11 32.4%	2 5.9%	3.32
27	13. Understand construction risk management.	1 3.0%	5 15.2%	19 57.6%	6 18.2%	2 6.1%	3.09
28	14. Understand construction accounting and cost control.	0 0.0%	7 21.2%	19 57.6%	7 21.2%	0 0.0%	3.00
29	15. Understand construction quality assurance and control.	0 0.0%	5 15.2%	18 54.5%	10 30.3%	0 0.0%	3.15
30	16. Understand construction project control processes.	0 0.0%	3 9.1%	15 45.5%	15 45.5%	0 0.0%	3.36
31	17. Understand the legal implications of contract, common, and regulatory law to manage a construction project.	0 0.0%	6 17.6%	19 55.9%	9 26.5%	0 0.0%	3.09
32	18. Understand the basic principles of sustainable construction.	0 0.0%	1 3.1%	16 50.0%	14 43.8%	1 3.1%	3.47
33	19. Understand the basic principles of structural behavior.	0 0.0%	1 3.0%	19 57.6%	13 39.4%	0 0.0%	3.36
34	20. Understand the basic principles of mechanical, electrical and piping systems.	0 0.0%	4 12.9%	17 54.8%	9 29.0%	1 3.2%	3.23

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35	With regards to SLO 11 - Apply Basic Surveying Techniques for Construction Layout and Control. Please indicate which of the following survey instruments should graduates be able to utilize to perform construction layout and control (mark all that apply).	Building Level	Total Station	Laser Level
		13	22	21
		23.2%	39.3%	37.5%

Curriculum Content

	Please rate the perceived value of each of the following Construction Management courses with the understanding that you must assume the content is based upon the title of the course.	Not Valuable At All	Seldom Valuable (1)	Somewhat Valuable (3)	Valuable (4)	Highly Valuable (5)	Average Score 1-5 Scale
36	CMGT 100 - Concepts of Construction	0 0.0%	1 3.0%	0 0.0%	17 51.5%	15 45.5%	4.39
38	CMGT 110 - Construction Graphics	0 0.0%	2 6.1%	7 21.2%	11 33.3%	13 39.4%	4.06
39	CMGT 135 - Construction Materials and Systems	0 0.0%	1 3.0%	5 15.2%	14 42.4%	13 39.4%	4.18
40	CMGT 210 - Analysis of Construction Drawings and Specifications	0 0.0%	0 0.0%	1 3.0%	10 30.3%	22 66.7%	4.64
41	CMGT 235 - Electrical and Mechanical Systems	0 0.0%	3 9.4%	9 28.1%	5 15.6%	15 46.9%	4.00
44	CMGT 330 - Principles of Soil Mechanics and Foundations	0 0.0%	5 14.7%	5 14.7%	8 23.5%	16 47.1%	4.00
45	CMGT 332 - Construction Methods Analysis	0 0.0%	2 6.1%	4 12.1%	8 24.2%	19 57.6%	4.33
46	CMGT 335 - Construction Equipment	2 6.1%	6 18.2%	8 24.2%	10 30.3%	7 21.2%	3.42
47	CMGT 340 - Principles of Statics	2 6.1%	8 24.2%	9 27.3%	10 30.3%	4 12.1%	3.18
48	CMGT 345 - Mechanics of Materials	2 6.1%	8 24.2%	10 30.3%	9 27.3%	4 12.1%	3.15
49	CMGT 360 - Construction Project Management	0 0.0%	1 3.0%	2 6.1%	5 15.2%	25 75.8%	4.64
51	CMGT 440 - Temporary Structures	1 3.0%	8 24.2%	9 27.3%	8 24.2%	7 21.2%	3.36
52	CMGT 450 - Building Estimating	0 0.0%	1 3.1%	3 9.4%	9 28.1%	19 59.4%	4.44
53	CMGT 455 - Construction Cost Management	0 0.0%	0 0.0%	4 12.5%	10 31.3%	18 56.3%	4.44
54	CMGT 457 - Project Control and Scheduling	0 0.0%	0 0.0%	1 3.0%	6 18.2%	26 78.8%	4.76
55	CMGT 458 - Heavy Construction Estimating	4 12.1%	8 24.2%	2 6.1%	11 33.3%	8 24.2%	3.33
56	CMGT 460 - Legal Aspects of Construction	0 0.0%	0 0.0%	3 9.1%	11 33.3%	19 57.6%	4.48
57	CMGT 462 - Construction Contracts	0 0.0%	0 0.0%	4 12.1%	12 36.4%	17 51.5%	4.39

Please indicate the level of preparation demonstrated by the Chico State Construction Management graduate(s) you supervise.

	Effective problem solvers	Not at all prepared (1)	A little prepared (2)	Somewhat prepared (3)	Quite a bit prepared (4)	Very prepared (5)	Average Score 1-5 Scale
58		0 0.0%	1 3.0%	5 15.2%	17 51.5%	10 30.3%	4.09

	Effective oral communicators	Not at all prepared (1)	A little prepared (2)	Somewhat prepared (3)	Quite a bit prepared (4)	Very prepared (5)	Average Score 1-5 Scale
60		0 0.0%	0 0.0%	4 12.1%	18 54.5%	11 33.3%	4.21

	Function effectively on multi-disciplinary teams	Not at all prepared (1)	A little prepared (2)	Somewhat prepared (3)	Quite a bit prepared (4)	Very prepared (5)	Average Score 1-5 Scale
61		0 0.0%	1 2.7%	2 5.4%	17 45.6%	13 34.9%	4.27

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62	Please list the strengths of the Construction Management Program:
	As long as the curriculum is structure and taught from an industry relation actual construction foundation is where the graduates are prepared for the real life of construction.
	Most of the kids coming out of the program are hard working kids that have a background of working when they were younger and are eager to learn.
	Equipment and Soils classes
	The content is great, but the things that makes Chico different than other schools are the students, for the most part, are prepared to communicate in person. The social component of the school helps, but the way department pushes summers internships rather than summer school is a large contributing factor. Pushing the interview process at the freshman levels prepare them for their junior and senior years too.
	Students are resourceful, hardworking, team oriented and effective at solving day to day problems.
	Practical experience showcased by the staff as well as given directly to the students in a variety of ways (i.e. internships, hands on construction projects and volunteer opportunities, etc.).
	Communication skill's- CSU Chico still leads in this area, but other schools are catching up. Construction is a communication business.
	The CM graduates are very well rounded. They have good plan reading skills, combined with solid software skills.
	The CM program at Chico is excellent and the faculty and staff are incredibly easy to work with. The students we have hired from Chico CM have been amazing and we are lucky to have them!
	Since I have not gone through the program this is difficult to answer. The people I have had from the program have a good base knowledge and are prepared to start in the industry.
	Great at problem solving and understanding the general principals of our industry.
	I feel that the Chico State CM graduates are very prepared to work in a team/group environment. The program successfully prepares them to work as a member of a team (through the competitions and assignments). I also appreciate Chico State's partnership with construction businesses to see that students get real world exposure through internships before entering the work force.
	Majority of our employees (past & present) Have had the ability to communicate with Tradespeople as well as Owners, Eineers etc. This is the most important skill a Construction Manager can have.
	The kids that we get from Chico are way more well rounded than the Cal Poly kids. Chico kids are hungry to work, learn, and get involved.
	Students are highly team oriented and work effectively in a group structure. Construction Management prepares students for the types of projects they may work on and teach the language of construction. There are many opportunities to get real life experience in what we do from connecting students to companies to community outreach programs. The networking component is probably the greatest benefit offered.
	Verbal and written skills were very apparent. Over all life cycle of a project was taught very well. Program equipped graduate with a solid foundation of basic knowledge, allowing details to be picked up very easily.
	students are prepared for working at a GC

63	Please list any areas needing improvement in the Construction Management Program:
	Scheduling is a needs to improve area. As we implement Last Planner we are shifting the culture of our superintendents from push mentality to a pull mentality. Understanding how to plan production and track it down to a daily function is very important going forward in our industry.
	Communication skills could be a little better but at the end of the day they are only 21-22 year old kids
	more focus on equipment and legal aspects
	(1) More emphasis on the safety side of our industry. There are colleges that provide degrees in Safety in which we recruit out of state for. (1) It seems as if there is more of a push towards vertical construction. The degree can be equally tailored towards Heavy Civil as well.
	Presentations / Public speaking, Total station surveying, modeling, basic project engineer skills (like writing RFIs, reviewing submittals, posting As-Builts, writing daily reports, etc) - it could be an entire course.
	Additional focus on the other areas of construction. For many years the program has had a heavy civil focus and although many students end up in that area of expertise, it would be helpful to have classes focused on other Construction specialties (i.e. Commercial - explore the vast types of construction, Residential - high density vs. custom homes vs. track developments, Specialty Areas - Marine, CM, Inspection Services, etc.).
	Technical/software skills- Chico continues to lack in this area. CSU Chico was once the leader in this, but not anymore. They need to get back on that train!
	Communication can be a little more professional. Looking for more MEP system awareness.
	One area that students could improve is their professionalism. This would be focused on communication, interview skills, attire, and overall professionalism interacting with industry professionals.
	Hands on experience in the construction industry. Whether that be an internship or experience being on a job site in some capacity. There are a lot of good handyman jobs in Chico through the CATS job program. Encourage students to get experience any way they can.
	Since I don't know your program it is again hard to say. But generally, I don't know that students understand they are joining an often confrontational environment. Not everyone is suited for it.
	Oral communication
	I can't say that I think the student needs more exposure at the college level. I have seen a weaknesses in estimating and scheduling, but this is mostly due to having not had that much experience with each task.
	Getting these kids hands on experience is the most valuable thing we as an industry can be doing. The class work is great but they really don't understand it unless they have learned first hand. I know this is hard to do but it would be great.
	Humility. The students coming out of college lack an understanding of the trajectory and timeline of a college graduate. If it takes longer than 6 months to get promoted, they leave. Writing skills are still a challenge when working with new graduates. RFIs should be second nature, but for most, they are just learning to write them on the job.
	I believe all programs need to find a way to ensure their students can read plans and specification.
	Being a Chico State CM Grad and having multiple years in the industry I often think back on the things I wish I was more exposed to. One of these is a technical RFI writing course. I know that as a student we went over the RFI processes, however, from my experience and mentors, writing a good RFI is almost like an art. Being able to properly reference contract documents, having an intro, stating the issue, listing the question, listing possible resolution (if any), and including back-up sketches or drawing/spec sheets are all part of technical writing that I feel I wasn't exposed to. I feel that a technical writing class (or add-on to a current course) that teaches students how to craft a well written RFI could be useful for them in their future careers. This not only helps students learn to write more technically but forces them to dig through a set of drawings, further exposing them to plan reading, and helping to improve their critical thinking. Maybe even RFI writing workshops giving easy - difficult questions to a group of students ranging from seasoned interns to the greenest of green. Just to pre-expose them to what to expect outside of college. Maybe this can be lumped in with a 400 Level class as most students already have some sort of experience with school and internships and they should be able to dig through drawings to some extent.

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	Writing skills, telephone skills, email and email management, better understanding of contracts and contract requirements, better time management and follow up skills.
	BIM, Lean, and learning how to plan/pull vs push (old school way if managing work) is how our industry is evolving into planning production.

64	Please list any specific feedback you have on the Construction Management curriculum:
	Keep relating all content to real construction examples.
	Maybe spread out the pre-sessions'. When there are more than 3 companies visiting on any particular day, the gathering seems to be noticeably low in attendance.
	In general, the students from CSUC are superior and have a better fit within our company than others. This is likely due to the location of our work as well as the type of student that elects to spend their college career in Chico. We are a company that takes pride in our small, Midwestern type values which I think most Chico State students appreciate.
	CSU Chico needs to add faculty and they need to get ahead of the technology.
	Keep working commercial construction into the program.
	I have had great success with Chico State students, and I would like to work with more in the future.
	The Construction Management Department has a Pay to play (access to Students) policy which puts small Contractors at a disadvantage. This is a Public School and all Contractors should have equal access.
	Most of my scores are low but that doesn't mean that aren't great kids they just don't have the experience yet and a lot of what they really do isn't taught in school. Every company is different.
	great job!
	Thank you for letting me share my opinions in the above. There are currently only 3 CSUC Grads at Bernard's, and as we aim to acquire more, I have tried to check in with the managers of the other 2 students to answer all of the questions to the best of my abilities.
	I'm very involved in the IAC and shaping the CM curriculum, so I am very happy with the direction the program is going.