College Curriculum Committee Meeting Agenda
Tuesday, December 3, 2019
2:00 p.m. – 3:30 p.m.
President's Conference Room

Item	Action	Attachment(s)	Presenter(s)
1. Minutes: November 19, 2019	Action	#12/3/19-1	Kuehnl
2. Report Out from Division Reps	Discussion		All
3. Announcements a. Notification of Proposed Requisites	Information	 #12/3/19-2	Kuehnl
4. Stand Alone Approval Request: JRYM 105	2nd Read/ Action	#12/3/19-3	Kuehnl
5. Stand Alone Approval Request: JRYM 106	2nd Read/ Action	#12/3/19-4	Kuehnl
6. Stand Alone Approval Request: R T 75	1st Read	#12/3/19-5	Kuehnl
7. Awarding Local Apprenticeship AS Degree	Discussion		Kuehnl
8. Honors Course Prerequisite	Discussion		Kuehnl
9. Good of the Order			Kuehnl
10. Adjournment			Kuehnl

Attachments:

#12/3/19-1	Draft Minutes: November 19, 2019
#12/3/19-2	CCC Notification of Proposed Requisites
#12/3/19-3	Stand Alone Course Approval Request: JRYM 105
#12/3/19-4	Stand Alone Course Approval Request: JRYM 106
#12/3/19-5	Stand Alone Course Approval Request: R T 75

2019-2020 Curriculum Committee Meetings:

Fall 2019 Quarter	Winter 2020 Quarter	Spring 2020 Quarter
~~10/8/19~~	1/21/20	4/21/20
~~10/22/19~~	2/4/20	5/5/20
~~11/5/19~~	2/18/20	5/19/20
~~11/19/19~~	3/3/20	6/2/20
12/3/19	3/17/20	6/16/20

Standing reminder: Items for inclusion on the CCC agenda are due no later than one week before the meeting.

2019-2020 Curriculum Deadlines:

12/1/19	Deadline to submit courses to CSU for CSU GE approval (Articulation Office).
12/1/19	Deadline to submit courses to UC/CSU for IGETC approval (Articulation Office).
2/18/20	Deadline to submit local GE applications for 2020-21 catalog (Faculty/Divisions).
2/18/20	Curriculum Sheet updates for 2020-21 catalog (Faculty/Divisions).
6/1/20	Deadline to submit new/revised courses to UCOP for UC transferability (Articulation Office).
TBD	COR/Title 5 updates for 2021-22 catalog (Faculty/Divisions).
Ongoing	Submission of courses for C-ID approval and course-to-course articulation with individual colleges and universities (Articulation Office).

Distribution:
Micaela Agyare (LIBR), Ben Armerding (LA), Rachelle Campbell (BH), Zachary Cembellin (PSME), Stephanie Chan (LA), Isaac Escoto (AS President), Valerie Fong (Acting Dean, LA), Marnie Francisco (PSME), Evan Gilstrap (Articulation Officer), Hilary Gomes (FA), Kurt Hueg (Dean, BSS), Eric Kuehnl (Faculty Co-Chair), Kristy Lisle (VP Instruction), Kent McGee (Evaluations), Dokesha Meacham (CNSL), Allison Meezan (BSS), Ché Meneses (FA), Brian Murphy (APPR), Ron Painter (PSME), Lisa Schultheis (BH), Matt Stanley (KA), Paul Starer (Administrator Co-Chair), Ram Subramaniam (Dean, BH & PSME), Nick Tuttle (BSS), Mary Vanatta (Curriculum Coordinator), Anand Venkataraman (PSME)

COLLEGE CURRICULUM COMMITTEE
Committee Members – 2019-20

Meeting Date: **12/3/19**

Co-Chairs (2)

✓	Eric Kuehnl	7479	Vice President, Academic Senate (tiebreaker vote only) kuehnleric@fhda.edu
✓	Paul Starer	7179	Interim Associate Vice-President of Instruction starerpaul@fhda.edu

Voting Membership (12 total; 1 vote per division)

✓	Micaela Agyare	7086	Library	agyaremicaela@fhda.edu
	Ben Armerding	7453	LA	armerdingbenjamin@fhda.edu
	Rachelle Campbell	7469	BH	campbellrachelle@fhda.edu
	Zachary Cembellin	7383	PSME	cembellinzachary@fhda.edu
✓	Stephanie Chan		LA	chanstephanie@fhda.edu
	Valerie Fong	7135	Acting Dean—LA	fongvalerie@fhda.edu
✓	Marnie Francisco	7420	PSME	franciscomarnie@fhda.edu
✓	Evan Gilstrap	7675	Articulation	gilstrapevan@fhda.edu
✓	Hilary Gomes	7585	FA	gomeshilary@fhda.edu
✓	Kurt Hueg	7394	Dean—BSS	huegkurt@fhda.edu
✓	Dokesha Meacham	7211	CNSL	meachamdokesha@fhda.edu
✓	Allison Meezan	7166	BSS	meezankaren@fhda.edu
✓	Ché Meneses	7015	FA	menesesche@fhda.edu
✓	Brian Murphy		APPR	brian@pttc.edu
✓	Ron Painter		PSME	painterron@fhda.edu
	Lisa Schultheis	7780	BH	schultheislisa@fhda.edu
			SRC	
✓	Matt Stanley	7222	KA	stanleymatthew@fhda.edu
✓	Ram Subramaniam	7472	Dean—BH & PSME	subramaniamram@fhda.edu
✓	Nick Tuttle	7056	BSS	tuttlenick@fhda.edu
	Anand Venkataraman	7495	PSME	venkataramananand@fhda.edu

Non-Voting Membership (4)

			ASFC Rep.	
✓	Mary Vanatta	7439	Curr. Coordinator	vanattamary@fhda.edu
	Kent McGee	7298	Evaluations	mcgeekent@fhda.edu
			SLO Coordinator	

Visitors

Chris Allen, Sabrina Sharp, Erica Paul, Daniel Mercer, Susie Huerta, Voltaire Villanueva, Patricia Gibbs

College Curriculum Committee
Meeting Minutes
Tuesday, November 19, 2019
2:00 p.m. – 3:30 p.m.
President's Conference Room

Item	Discussion
1. Minutes: November 5, 2019	**Approved by consensus.**
2. Report Out from Division Reps	**Speaker: All** Language Arts: No updates to report. Bio Health: Per Subramaniam, no updates to report. Counseling: Considering reducing Introduction to Online Learning *[note: CNSL 90]* from 1.5 units to 1 unit—connecting with Lené Whitley-Putz (Dean of Online Learning) to discuss. BSS: No updates to report. PSME: Starting to work on curriculum sheet updates. Kinesiology: No updates to report. Fine Arts: Division decided to not move forward with creation of GID 32A/B cross-listings (on previous CCC agenda). Reps are working on ways of improving communication with faculty regarding curriculum. Library: No updates to report. Announcement that there will be a new library catalog system starting winter quarter. More information to come, but might impact links/images in Canvas, for example. Liaisons will be able to provide help regarding any necessary Canvas edits. Starer asked about timing—there may be a little overlap with current system at the end of fall quarter, but new system will take over in winter. Apprenticeship: No updates to report.
3. Announcements a. New Course Proposals	**Speaker: Eric Kuehnl** The following proposals were presented: ATHL 34, 34A, 34B; CNSL 3, 3H; RSPT 56, 57; R T 75. Please share with your constituents. PSME rep asked how the 5-unit CNSL courses articulate to 3-semester-unit courses (instead of 4.5 quarter units)—Counseling rep will follow up with faculty. No other comments.
b. Notification of Proposed Requisites	New prereq for JRYM 106, effective summer 2020 quarter. Please share with your constituents. No comments.
c. ASCCC Fall Plenary Update	Kuehnl attended plenary with Isaac Escoto; received list of voting outcomes after agenda was distributed—will forward to reps. Mentioned resolution re: recommendation to remove "pilot" designation from bachelor degrees—passed. Attended breakout session on bachelor programs; noted that Foothill stands out among the group, in regard to program success!
d. Acting Certificate Approval	The CCCCO has approved the Acting Certificate of Achievement!
4. Stand Alone Approval Request: BUSI 12	**Speaker: Eric Kuehnl** Second read of Stand Alone Approval Request for BUSI 12. No comments. Motion to approve **M/S** (Francisco, Armerding). **Approved.**

5. Stand Alone Approval Request: C S 48A	**Speaker: Eric Kuehnl** Second read of Stand Alone Approval Request for C S 48A. No comments. Motion to approve **M/S** (Francisco, Armerding). **Approved.**
6. Stand Alone Approval Request: ESLL 201A	**Speaker: Eric Kuehnl** Second read of Stand Alone Approval Request for ESLL 201A. No comments. Motion to approve **M/S** (Francisco, Armerding). **Approved.**
7. New Program Application: Digital Marketing Certificate of Achievement	**Speaker: Eric Kuehnl** Second read of new Digital Marketing Certificate of Achievement. No comments. Motion to approve **M/S** (Armerding, Painter). **Approved.**
8. Stand Alone Approval Request: JRYM 105	**Speaker: Eric Kuehnl** First read of Stand Alone Approval Request for JRYM 105. Will be permanently Stand Alone. No comments. Second read and possible action will occur at next meeting.
9. Stand Alone Approval Request: JRYM 106	**Speaker: Eric Kuehnl** First read of Stand Alone Approval Request for JRYM 106. Will be permanently Stand Alone. No comments. Second read and possible action will occur at next meeting.
10. Requisite Recency	**Speaker: Eric Kuehnl** Continuing discussion from a previous meeting. PSME reps reached out to depts. in PSME, as well as Biology dept. (no feedback yet from Biology due to timing of their meetings). Chemistry dept. said five years is reasonable for their courses; faculty concerned about safety issues in lab setting. C S dept. also has labs, but different format, so no safety concerns; against any sort of recency requirement, as they believe most of their students won't need it; C S courses tend to not have requisites unless required for articulation. Physics dept. more concerned with math prereqs, and not safety; have seen students return with diminished math skills, which can prohibit success; supports recency requirement for this reason. PSME division determined it would be best for each dept. to be able to set their own recency requirement, since lab courses across campus are very different and may have different reasons for setting a requirement. Rep acknowledged that allowing each dept. to set its own requirement could become complex. Other PSME rep noted Dental Hygiene dept., which recommends that students take all prereqs within six years of beginning their program. Gilstrap noted that Dental Hygiene currently does require students to have completed BIOL prereqs before entering program, but no requirement for other prereqs. Fine Arts rep mentioned safety issues in certain labs in division, especially ART courses. Has not discussed topic with Graphic Design dept. yet, but could be an issue due to software changes over the years. Counseling rep asked if reps know how many students might be affected in a given year, as well as what safety training is like. PSME rep responded that CHEM labs have safety training on the first day of class, and expectation that students have some familiarity with safety techniques/protocols from prior courses; don't retrain students on techniques they learned in prior courses; unsure how many students affected per year. Other PSME rep noted one faculty member in Physics dept. has experienced a number of students affected, which prompted them to bring the issue to the reps. Fine Arts rep brought up the issue to their dean, who recommended adding guidelines to syllabus regarding how situation would be handled if student does not have recent

| | enough prereq knowledge (e.g., student would need to drop the course). PSME rep expressed concern about stress on learning environment, in general, if student is present in class setting who might pose a safety risk—does not agree that suggestion to add guidelines to syllabus is appropriate, and believes faculty should not be placed in dangerous environment. Fine Arts rep noted that certain ART labs have safety risk similar to CHEM labs, due to solvents and chemicals used (e.g., printmaking courses).

Language Arts rep asked if actual policy is necessary or if recency requirements could be included on the COR; noted that Title 5 allows for recency requirement (Kuehnl noted that Title 5 states it must be 36+ months). Kuehnl wondered if other solutions possible, rather than blocking student registration; for example, safety training. Fine Arts rep noted that faculty teaching certain labs must undergo safety training annually; open to something similar for students. Kuehnl agreed that college-wide policy might not be necessary. Starer expressed concern that students aren't fully trained in labs every quarter; asked reps if training is so onerous/time consuming that it can't be repeated every quarter; could it be separate from lab hours? Would rather address safety issue than set up prereq barrier. Subramaniam noted that two-year CHEM sequence is basically one long sequence, so some students might be required to re-take multiple CHEM courses under a recency requirement. Noted concern that faculty might not be up-to-date on certain types of lab safety training. Gilstrap noted some effects on students of being required to re-take a course, related to grades and transferring credits. Fine Arts rep noted issue of students using courses from other colleges as prereqs, which makes it hard to know what level of safety training they were given. Suggested using a quiz during first week of class (following in-class training) to ensure students understand safety processes, and require students pass the quiz to remain in the class.

PSME rep asked about legality of requiring a student to take a separate training class that doesn't carry credit and how logistics would work, e.g., how often it would be held, and how we would handle faculty pay. Starer believes we can require necessary safety training, legally. PSME rep unsure it makes sense for faculty to have to cover so many basic safety training processes for all students; believes it a better idea to require it only for students who need it. Language Arts rep suggested noncredit coreq that could be required for certain students, similar to coreqs created for AB 705. Vanatta unsure which noncredit category the course could fall under. Fine Arts rep suggested using hybrid teaching format to provide online training/quiz for students. BSS rep asked if there could be funding for an instructional designer to tailor training/quiz to each individual discipline; suggested holding quiz first, so students who pass do not have to watch training portion. Starer noted possibility of funding; agreed that idea is worth exploring with Online Learning dept. Cautioned that implementing the coreq model suggested by Language Arts rep creates a lot of issues in Banner; AB 705 coreqs require a lot of work/intervention from A&R because they cannot be implemented in a streamlined way.

Kuehnl reiterated that group agrees that issue should be handled separately by each dept.—group agreed. PSME rep will bring coreq suggestion back to Chemistry and Physics depts. to discuss. Starer will follow-up with Online Learning dept. re: creation of online training/quiz; reiterated that we are empowered to handle this issue locally. PSME rep asked if De Anza would need to become involved—no, per Starer; local issue, not district-wide. |
| 11. Centralized Curriculum Model | **Speaker: Eric Kuehnl**
At previous meeting, during discussion about division CC processes and practices, group discussed pros and cons of our decentralized model vs. a centralized one. Per request of group, topic agendized as a discussion item. |

Fine Arts rep reported discussed at recent division CC meeting; received feedback that holding division-level meetings fostered communication and collaboration within division, and faculty felt more confident in curriculum being reviewed at division before going to CCC. Any negative comments related to feelings of mistrust in the past, possibly 15+ years ago. Language Arts rep received strong opposition from all but one in division who sent feedback; concern that faculty in other depts./divisions could hold strong bias against content of courses, and liked having a buffer and felt they have more freedom. PSME rep noted their division has historically been strongly opposed to centralized model; faculty in division have felt personally attacked by/at CCC throughout the years, concern that politics influence certain actions taken against their division. Stated that if we change to centralized model, division will still hold division CC meetings and operate the same way they currently are.

Subramaniam responded to concerns that faculty will be shut down by others with differing opinions, saying that faculty shouldn't be deterred by such comments; noted that articulation highly influences our curriculum in many cases, and faculty should hold strong. Language Arts rep and BSS rep noted examples of new courses being stopped due to influence from outside dept./division, and examples of conflicts wherein multiple depts. believed they had sole right to teach certain content. BSS rep agreed with PSME rep regarding political issues causing conflict. Starer noted that not all divisions operate at the same level of robustness, when it comes to thoroughly preparing for CCC meetings, etc. Clarified that part of the reason is that the reps trust their colleagues in other depts. to write appropriate curriculum; however, he believes reps should be aware of what is being developed across campus and what they're approving. Stressed that any discussion about this topic will involve politics, and that politics will always be present in curriculum discussions, whether at division or CCC level.

Language Arts rep recalled experience discussing curriculum models at conferences/meetings—those who have centralized models experience all of the same issues as we do. Expressed need for handbook for reps, to guide reps on how to hold meetings and handle issues; also suggested professional development as a solution. Does not believe that centralization, in and of itself, will solve issues. PSME rep responded to Starer's comments about divisions operating at different levels, and noted feeling that PSME is being penalized for doing a good job, because other divisions are not doing as well. Fine Arts rep recalled experience on Humanities GE subcommittee, noting decline in participation on GE subcommittees, in general—suggested bringing GE approval directly to CCC. Noted not enough faculty attending division CC meetings, which does not enable robust participation and can result in miscommunication (e.g., recent issue with GID cross-listings). BSS rep worried about larger college-wide culture shift of faculty not taking as much of an involvement in the college, in terms of volunteering for committees, sincere participation when on committees, etc. Asked Starer to bring issue to administration level—Starer will bring it up but unsure that it is strictly an administration issue. BSS rep stated belief that change in culture reflects a change in administration culture, student engagement, faculty living farther away from campus.

Subramaniam explained his reason for promoting centralized model: worried about long-term sustainability of workload for reps without compensation (in decentralized model); regarding influence of outside depts., believes its okay to have influence regarding things like hours/units, in terms of equity in workload—these issues aren't as transparent under our decentralized model. Kuehnl noted current discussions (outside of CCC) regarding seat counts. Agreed with Language Arts rep about importance of

	brainstorming how to address issues outside of changing to centralized model. Fine Arts rep noted issue of faculty who teach only online, who rarely come to campus for division CC meetings, unless their own curriculum being discussed; concerned this will become a bigger issue as more courses move online. Gilstrap agreed that training for reps is important; noted that freedom for division CCs to have different processes can create confusion. Starer expressed concern regarding lack of GE subcommittee participation; noted we may need to bring GE approval back to CCC. Language Arts asked for clarification regarding GE subcommittees and how they relate to CCC—Starer gave background, noting that GE review/approval has gone back-and-forth from subcommittee(s) to CCC. Kuehnl acknowledged that the group does not seem interested in changing to centralized model, but stressed the need to address issues to make things work better in current model. Language Arts rep suggested looking at other colleges' handbooks for foundation to create our own. Kuehnl expressed need to figure out how to best pass on knowledge to incoming reps, as well as how to keep workload level reasonable for reps. Fine Arts rep suggested online handbook; noted that each division has unique issues, so one handbook might not be applicable to every division, but a good starting point. Kuehnl suggested each division created brief guidelines, to address unique aspects of that division. Starer thanked the reps for engaging in a valuable discussion; believes it's good to discuss centralized model every once in a while, to determine current level of interest. Conversation will continue at a future meeting, framed around how to better support/train reps and address issues within current model.
12. Good of the Order	
13. Adjournment	**3:30 PM**

Attendees: Micaela Agyare (LIBR), Chris Allen (guest—Dean, APPR), Ben Armerding (LA), Stephanie Chan (LA), Marnie Francisco (PSME), Evan Gilstrap (Articulation Officer), Hilary Gomes (FA), Eric Kuehnl (Faculty Co-Chair), Dokesha Meacham (CNSL), Allison Meezan (BSS), Ché Meneses (FA), Brian Murphy (APPR), Ron Painter (PSME), Matt Stanley (KA), Paul Starer (Administrator Co-Chair), Ram Subramaniam (Dean, BH & PSME), Mary Vanatta (Curriculum Coordinator)

Minutes Recorded by: M. Vanatta

CCC Notification of Proposed Prerequisites/Co-Requisites

The following courses are currently undergoing review for requisite additions or changes. Please contact the Division Curriculum Rep if you have any questions or comments.

Target Course Number & Title	COR Editor	Requisite Course Number & Title	New/Ongoing
ACTG 54: Accounting Information Systems	J. Nava	Prereq: ACTG 1B or 1BH (Financial Accounting II or Honors)	New for 2020-21
R T 75: Sectional Anatomy	R. Campbell	Prereq: BIOL 40A, 40B and 40C or equivalent (Human Anatomy & Physiology I, II & III)	New for 2020-21

FOOTHILL COLLEGE
Stand-Alone Course Approval Request

If a Foothill credit course is **NOT** part of a State approved associate's degree, certificate of achievement or the Foothill College GE Pattern, it is considered by the State to be a "Stand Alone Course." Per Title 5, local curriculum committees must review and approve proposed stand-alone courses to ensure that they are consistent with credit course standards (§55002), the community college mission and there is sufficient need and resources for the course. To be compliant with State regulations, there must be a completed, approved Stand Alone Form on file in the Office of Instruction.

Per our local process, the same process of review and approval is used for noncredit Stand Alone courses.

Stand Alone Course Approval Requests should be completed and forwarded to your Division Curriculum Committee to begin the approval process.

Course #:   JRYM 105

Course Title: Project Management Development for Commercial Construction Level 1

Credit Status:
   X   Credit course
_____ Noncredit course

Catalog Description:

In this course students will learn the roles and responsibilities of a commercial construction project manager. Students will learn topics that cover the entire life cycle of a construction project. Lecture and exercises will entail pre-construction planning, estimating, project monitoring, and project closeout.

Are you requesting Stand Alone approval for the course on a <u>temporary</u> or <u>permanent</u> basis?

   X   The course will be **permanently** Stand Alone; there are no plans to add it to a State approved degree or certificate, nor to the Foothill GE pattern
_____ The course will be Stand Alone **temporarily**, and it will be incorporated into a new degree or certificate that is not yet State approved. In this case, identify the degree/certificate to which the course will be added:

   o   What is the specific timeline for program application/approval? (e.g., is your program application locally approved, or is it still in development and if so, what is your anticipated submission date?)

NOTE: If you have not submitted your program application to the State by the end of the current academic year, you must reapply for permanent Stand Alone approval.

The Curriculum Committee must evaluate this application based on the following criteria:

Criteria A. Appropriateness to Mission
The Foothill College Mission states: Believing a well-educated population is essential to sustaining and enhancing a democratic society, Foothill College offers programs and services that empower students to achieve their goals as members of the workforce, as future students, and as global citizens. We work to obtain equity in achievement of student outcomes for all California student populations, and are guided by our core values of honesty, integrity, trust, openness, transparency, forgiveness, and sustainability. Foothill College offers associate degrees and certificates in multiple disciplines, and a baccalaureate degree in dental hygiene.

Please indicate how your course supports the Foothill College Mission (select all that apply):
_____ Transfer
   X   Workforce/CTE

_____ Basic Skills

Criteria B. Need
A course may only be granted Stand Alone Approval if there is <u>demonstrable need</u> for the course in the college service area. Please provide evidence of the need or demand for your course, such as ASSIST documentation for transfer courses or Labor Market Information for workforce/CTE courses (if LMI is unavailable, advisory board minutes or employer surveys may be submitted). For basic skills courses, assessment-related data or information may be provided.

Evidence may be attached to this form or provided in the box below.

Due to the rebounding economy, it is hard for a company to find skilled, experienced, or trained workers in all areas. The Project management training classes at Local 393 address all of these areas by providing training in the areas of project management. This class also offers a leadership opportunity for disabled and/or aging out workers.
Evidence – see attached pdfs of all the links below.

CA Occupational Guides for Construction Managers
https://www.labormarketinfo.edd.ca.gov/OccGuides/Detailprint.aspx?Soccode=119021&Geography=0601000000
Bureau of Labor Statistics expect construction jobs to grow 10% from 2018 to 2026.
https://www.bls.gov/ooh/construction-and-extraction/home.htm
McGraw Hill & USGBC Smart Market Report– Construction industry workforce shortages: Role of Certification, Training and Green Jobs in Filling the Gaps.
https://www.usgbc.org/drupal/legacy/usgbc/docs/Archive/General/Docs18984.pdf
Area Market – Front Line Construction Industry Faces a Labor Shortage.
https://www.areadevelopment.com/construction-project-planning/Q2-2018/construction-industry-faces-labor-shortage.shtml
IRMI – Dealing with Construction Workforce Shortage.
https://www.irmi.com/articles/expert-commentary/dealing-with-the-construction-workforce-shortage

Criteria C. Curriculum Standards (please initial as appropriate)
_____ The outline of record for this course has been approved the Division Curriculum Committee and meets the requirements of Title 5

Faculty Requestor: <u>Erica Paul</u>   **Date:** <u>10/21/19</u>

Division Curriculum Representative: <u>Brian Murphy</u>   **Date:** <u>10/30/19</u>

Date of Approval by Division Curriculum Committee: <u>10/30/19</u>

College Curriculum Co-Chairperson: _____   **Date:** _____

Apprenticeship

JRYM 105   PROJECT MANAGEMENT DEVELOPMENT FOR COMMERCIAL CONSTRUCTION LEVEL 1   **Summer 2020**

54 hours total: 18 hours lecture, 36 hours laboratory.   **2.5 Units**

Total Contact Hours: 0   *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 0   *(Total of All Lecture, Lab hours and Out of Class X 12)*

Lecture Hours:	Lab Hours:	Weekly Out of Class Hours:

Note: If Lab hours are specified, the *item 10. Lab Content* field must be completed.

Repeatability -

Statement: Not Repeatable.

Status -

	Course Status: Active	**Grading:**	Letter Grade with P/NP option
	Degree Status: Applicable	**Credit Status:**	Credit
	Degree or Certificate Requirement: Stand Alone Course		
	GE Status: Non-GE		

Articulation Office Information -

C.I.D. Notation:

Transferability: **Validation:** 3/18/19

Division Dean Information -

Seat Count:	Load Factor:	FOAP Code:
50	.081	1140001420061095640

Instruction Office Information -

FSA Code:

Distance Learning: no

Stand Alone Designation: no

Program Title:

Program TOPs Code:

Program Unique Code:

Content Review Date:

Former ID:

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1. Description -

In this course students will learn the roles and responsibilities of a commercial construction project manager. Students will learn topics that cover the entire life cycle of a construction project. Lecture and exercises will entail pre-construction planning, estimating, project monitoring, and project closeout.

2. Course Objectives -

The student will be able to:

    A. Understand and identify project life cycle phases
    B. Develop, and model communication skills required to coordinate team members' contributions and responsibilities
    C. Develop and demonstrate proficient leadership and presentation skills
    D. Organize, understand, and develop/write industry standard project documents
    E. Describe and apply LEAN pre-planning and scheduling practices
    F. Develop and understand how to create and present marketing presentations
    G. Develop and apply negotiation skills

3. Special Facilities and/or Equipment -

    A. Laboratory with internet enabled computers
    B. AV equipment and overhead projector
    C. Video camera

4. Course Content (Body of knowledge) -

    A. Understand and identify project life cycle phases
        1. Pre-construction, construction, and closeout
        2. Responsibilities and task in each project phase and provide examples
        3. Guest speaker, individual, partner, and group exercises
    B. Develop and model communication skills required to coordinate team members' contributions and responsibilities
        1. Lecture overview, individual assignment, followed by small group discussion
        2. Speaking, listening, and decoding
        3. Team building exercises, group project, and guest speakers
        4. Communication style assessment, StrengthsFinder assessment, and listening evaluation
        5. Student's awareness and improvement
    C. Develop and demonstrate proficient leadership and presentation skills
        1. Myers-Briggs assessment
        2. Value identification exercises
        3. Personal mission statement
        4. Group presentation exercises
        5. Daily class journal exercises
    D. Understand, organize, and develop industry standard project documents
        1. Industry standard documents
        2. Understand and create request for proposal (RFP)
        3. Understand and create a request for information (RFI)
        4. Understand and create submittal, change order, budgets, and closeout documents
        5. Develop a construction estimate from take-off, pricing, and scope letter
        6. Weekly review
    E. Understand and apply LEAN pre-planning and scheduling practices
        1. Concepts in 2 Second LEAN by Paul Ackers
        2. Weekly journal applying LEAN concepts
        3. Guest speakers with interactive activities
    F. Understand and apply business development, marketing, and negotiating concepts and strategies
        1. Marketing concepts are taught through lecture, video, and guest speakers
        2. Team building and negotiation exercises in group project assignment
        3. Group presentation selling the scope of work to the client

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

    A. Results of daily written exercises, weekly homework assignments, and final presentation
    B. Satisfactory completion of bid and proposal presentation
    C. Class participation and exercises

7. Representative Text(s) -

Project Management Institute. Construction Extension to the PMBOK Guide. 6th ed. Newtown Square, PA: Project Management Institute, Inc., 2016.

Akers, Paul. <u>2 Second LEAN.</u> 3rd ed. Ferndale, WA: Fast Cap Press, 2014.
Rath, Tom. <u>2 StrengthsFinder.</u> 3rd ed. New York, NY: Gallup Press, 2004.

NOTE: Although one or more of theses texts is/are older than the recommended 5 years, they conform to national training standards and are considered seminal works in the discipline. We will adopt the next edition of each text, as it is published.

8. Disciplines -

Plumbing OR Steamfitting OR Air Conditioning, Refrigeration, Heating

9. Method of Instruction -

      A. Lecture
      B. Lab assignment
      C. Group discussion
      D. Presentation

10. Lab Content -

      A. Students will work individually, in partners, and in teams on estimating, presentations, and preparing construction documents.

11. Honors Description - No longer used. Integrated into main description section.

12. Examples of Required Reading and Writing and Outside of Class Assignments -

      A. Textbook: <u>2 Second LEAN</u>
          1. Readings: Students will read the entire book
          2. Writing: Students will prepare a written report and presentation of the 2 Second LEAN
      B. Textbook: Project Management Institute
          1. Readings: Students will be assigned selected readings from the book
          2. Writings: Students will apply reading in construction project management documentation planning and preparation exercises
      C. Textbook: <u>StrengthsFinder</u>
          1. Readings: Students will read the strengths as indicated from the computer-based assessment
          2. Writings: Students will create goals based on the strengths

13. Need/Justification -

There is a need to advance the skills of our building trades workforce at the Pipe Trades Training Center in Santa Clara and San Benito counties, in the area of supervision and construction project management. Currently the Bay Area is facing a shortage of workers with the necessary skills to conduct work as a project manager. These skills will be applied and mastered through practice and delivery.

FOOTHILL COLLEGE
Stand-Alone Course Approval Request

If a Foothill credit course is **NOT** part of a State approved associate's degree, certificate of achievement or the Foothill College GE Pattern, it is considered by the State to be a "Stand Alone Course." Per Title 5, local curriculum committees must review and approve proposed stand-alone courses to ensure that they are consistent with credit course standards (§55002), the community college mission and there is sufficient need and resources for the course. To be compliant with State regulations, there must be a completed, approved Stand Alone Form on file in the Office of Instruction.

Per our local process, the same process of review and approval is used for noncredit Stand Alone courses.

Stand Alone Course Approval Requests should be completed and forwarded to your Division Curriculum Committee to begin the approval process.

Course #:   JRYM 106

Course Title: Project Management Development for Commercial Construction Level 2

Credit Status:
    X   Credit course
_____ Noncredit course

Catalog Description:

In this course students will apply the concepts learned in JRYM 105 and advance their skills. These skills will enable students to obtain work in the construction market, manage risk, and negotiate changes, as well as develop and present pre-construction interviews. Students will build on topics learned in JRYM 105 to develop advanced planning, managing, monitoring, and interpersonal skills.

Are you requesting Stand Alone approval for the course on a temporary or permanent basis?

   X   The course will be **permanently** Stand Alone; there are no plans to add it to a State approved degree or certificate, nor to the Foothill GE pattern
_____ The course will be Stand Alone **temporarily**, and it will be incorporated into a new degree or certificate that is not yet State approved. In this case, identify the degree/certificate to which the course will be added:

    o   What is the specific timeline for program application/approval? (e.g., is your program application locally approved, or is it still in development and if so, what is your anticipated submission date?)

NOTE: If you have not submitted your program application to the State by the end of the current academic year, you must reapply for permanent Stand Alone approval.

The Curriculum Committee must evaluate this application based on the following criteria:

Criteria A. Appropriateness to Mission
The Foothill College Mission states: Believing a well-educated population is essential to sustaining and enhancing a democratic society, Foothill College offers programs and services that empower students to achieve their goals as members of the workforce, as future students, and as global citizens. We work to obtain equity in achievement of student outcomes for all California student populations, and are guided by our core values of honesty, integrity, trust, openness, transparency, forgiveness, and sustainability. Foothill College offers associate degrees and certificates in multiple disciplines, and a baccalaureate degree in dental hygiene.

Please indicate how your course supports the Foothill College Mission (select all that apply):
_____ Transfer

X   Workforce/CTE
         _____ Basic Skills

Criteria B. Need
A course may only be granted Stand Alone Approval if there is <u>demonstrable need</u> for the course in the college service area. Please provide evidence of the need or demand for your course, such as ASSIST documentation for transfer courses or Labor Market Information for workforce/CTE courses (if LMI is unavailable, advisory board minutes or employer surveys may be submitted). For basic skills courses, assessment-related data or information may be provided.

Evidence may be attached to this form or provided in the box below.

Due to the rebounding economy, it is hard for a company to find skilled, experienced, or trained workers in all areas. The Project management training classes at Local 393 address all of these areas by providing training in the areas of project management. This class also offers a leadership opportunity for disabled and/or aging out workers.   Evidence – see attached pdfs of all the links below.   CA Occupational Guides for Construction Managers   https://www.labormarketinfo.edd.ca.gov/OccGuides/Detailprint.aspx?Soccode=119021&Geography=0601000000   Bureau of Labor Statistics expect construction jobs to grow 10% from 2018 to 2026.   https://www.bls.gov/ooh/construction-and-extraction/home.htm   McGraw Hill & USGBC Smart Market Report– Construction industry workforce shortages: Role of Certification, Training and Green Jobs in Filling the Gaps.   https://www.usgbc.org/drupal/legacy/usgbc/docs/Archive/General/Docs18984.pdf   Area Market – Front Line Construction Industry Faces a Labor Shortage.   https://www.areadevelopment.com/construction-project-planning/Q2-2018/construction-industry-faces-labor-shortage.shtml   IRMI – Dealing with Construction Workforce Shortage.   https://www.irmi.com/articles/expert-commentary/dealing-with-the-construction-workforce-shortage

Criteria C. Curriculum Standards (please initial as appropriate)
         _____ The outline of record for this course has been approved the Division Curriculum Committee and
                 meets the requirements of Title 5

Faculty Requestor: <u>Erica Paul</u>   **Date:** <u>10/21/19</u>

Division Curriculum Representative: <u>Brian Murphy</u>   **Date:** <u>10/30/19</u>

Date of Approval by Division Curriculum Committee: <u>10/30/19</u>

College Curriculum Co-Chairperson: _____   **Date:** _____

Apprenticeship

JRYM 106   PROJECT MANAGEMENT DEVELOPMENT FOR COMMERCIAL CONSTRUCTION LEVEL 2

Summer 2020

54 hours total: 18 hours lecture, 36 hours laboratory.

2.5 Units

Total Contact Hours: 0   *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 0   *(Total of All Lecture, Lab hours and Out of Class X 12)*

Lecture Hours: Lab Hours: Weekly Out of Class Hours:

Note: If Lab hours are specified, the *item 10. Lab Content* field must be completed.

Repeatability -
Statement: Not Repeatable.

Status -

Course Status: Active	**Grading:**	Letter Grade Only
Degree Status: Applicable	**Credit Status:**	Credit
Degree or Certificate Requirement: Stand Alone Course		
GE Status: Non-GE		

Articulation Office Information -

C.I.D. Notation:

Transferability: **Validation:** 3/18/19

Division Dean Information -

Seat Count: 50   **Load Factor:** .081   **FOAP Code:** 114000142061095640

Instruction Office Information -
FSA Code:
Distance Learning: no
Stand Alone Designation: no
Program Title:
Program TOPs Code:
Program Unique Code:
Content Review Date:
Former ID:

1. Description -

In this course students will apply the concepts learned in JRYM 105 and advance their skills. These skills will enable students to obtain work in the construction market, manage risk, and negotiate changes, as well as develop and present pre-construction interviews. Students will build on topics learned in JRYM 105 to develop advanced planning, managing, monitoring, and interpersonal skills.

Prerequisite: JRYM 105.

2. Course Objectives -

The student will be able to:

  A. Design and develop a pre-construction marketing presentation
  B. Understand and apply advanced negotiation skills
  C. Develop and demonstrate advanced project planning techniques with financial and safety objectives
  D. Develop and demonstrate advanced presentation and interpersonal communication skills

3. Special Facilities and/or Equipment -

  A. Laboratory with internet enabled computers
  B. AV equipment and overhead projector
  C. Video camera

4. Course Content (Body of knowledge) -

  A. Design and develop a pre-construction marketing presentation
      1. Research competitors in the industry
      2. Develop a strategy for the presentation
      3. Develop an outline of the presentation
      4. Deliver presentation
  B. Understand and apply advanced negotiation skills
      1. Understand how to identify position and interests
      2. Demonstrate and participate in planning, execution, and analysis of negotiation exercises
      3. Develop and demonstrate in-time negotiation skills and techniques
  C. Develop and demonstrate advanced project planning techniques with financial and safety objectives
      1. Understand OSHA safety standards related to OSHA 10
      2. Prepare a jobsite kick-off meeting agenda with financial and safety goals
      3. Identify and understand how to plan for safety and financial goals on a project before construction begins
  D. Develop and demonstrate advanced presentation and interpersonal communication skills
      1. Develop interpersonal goal work plans
      2. Develop and apply presentation skills goals
      3. Develop individual, partner, and group presentations
      4. Observe and evaluate self and classmates' presentations

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

  A. Results of daily written exercises, weekly homework assignments, and final presentation
  B. Satisfactory completion of bid and proposal presentation
  C. Class participation and exercises
  D. Video and play back of presentation exercises
  E. Class and self-evaluation of negotiation exercises

7. Representative Text(s) -

Project Management Institute. Construction Extension to the PMBOK Guide. 6th ed. Newtown Square, PA: Project Management Institute, Inc., 2016.
Akers, Paul. 2 Second LEAN. 3rd ed. New York, NY: Gallup Press, 2004.
Rath, Tom. 2 StrengthsFinder. 3rd ed. New York, NY: Gallup Press, 2004.
Fisher, Rodger, and William L. Ury. Getting to Yes: Negotiating Agreement Without Giving In. 3rd ed. New York, NY: Penguin Books, 2011.

NOTE: Although one or more of theses texts is/are older than the recommended 5 years, they conform to national training standards and are considered seminal works in the discipline. We will adopt the next edition of each text, as it is published.

8. Disciplines -

Plumbing OR Steamfitting OR Air Conditioning, Refrigeration, Heating

9. Method of Instruction -

A. Lecture
B. Lab assignment
C. Group discussion
D. Presentation

10. Lab Content -

A. Students will work individually, in partners, and in teams on advanced application of estimating, presentations, and preparing construction documents.

11. Honors Description - No longer used. Integrated into main description section.

12. Examples of Required Reading and Writing and Outside of Class Assignments -

A. Textbook: 2 Second LEAN
1. Readings: Students will read the entire book during JRYM 105
2. Writing: Students will prepare a construction schedule applying LEAN practices
B. Textbook: Project Management Institute
1. Readings: Students will be assigned selected readings from the book
2. Writings: Students will apply reading in construction project management documentation planning and preparation exercises
C. Textbook: StrengthsFinder
1. Readings: Students will read the strengths as indicated from the computer-based assessment during JRYM 105
2. Writings: Students will create goals presentation and professional goals based on the strengths

13. Need/Justification -

There is a need to advance the skills of our building trades workforce at the Pipe Trades Training Center in Santa Clara and San Benito counties, in the area of supervision and construction project management. Currently the Bay Area is facing a shortage of workers with the necessary skills to conduct work as a project manager. These skills will be applied and mastered through practice and delivery.

Detailed Guide for

Construction Managers in California

May also be called: Construction Area Managers; Constructors; General Contractors; Project Engineers; Project Managers

What Would I Do?

Construction Managers* plan, coordinate, and budget a wide variety of construction projects from development to the final construction phase. A few possible projects include building residential, commercial, and industrial structures; roads; bridges; wastewater treatment plants; fueling stations; schools; and hospitals. They divide all required construction site activities into logical steps, estimating and budgeting the time required to meet established schedules.

Construction Managers may schedule and coordinate all design and construction processes. They direct and monitor the progress of construction activities. This may include directly supervising specific parts of the project or managing construction supervisors. Some of Construction Managers' activities may include the selection, hiring, and oversight of specialty trade contractors, such as plumbers, ensuring that all work is completed on schedule. Construction Managers, in conjunction with the architectural team, are responsible for obtaining all necessary permits and licenses. Depending upon the contractual arrangements, they may be responsible for directing or monitoring compliance with building and safety codes, other regulations, and requirements set by the project's insurers. They work with a wide range of clients and professionals, including, architects, engineers, contractors, and public officials, such as building inspectors.

Tools and Technology

Construction Managers make use of various tools and instruments, including lasers, smart levels, tablet computers, smart phones, scanners, and video conference equipment. They may also utilize accounting, scheduling, energy audit, and integrated construction management software.

Green Economy

Construction Managers can play an important role in the emerging green economy. The primary difference between the work of green Construction Managers and the duties of their conventional counterparts lies in their ability to implement environmentally friendly materials and technologies. This creates a more ecofriendly construction project.

Other green activities include minimizing solid waste and maximizing efficiency through materials management and coordination of all activities. Additionally, use of sustainable products, such as sustainably harvested wood, and limiting the use of low volatile organic compound (VOC) paints, lacquers, and adhesives to reduce indoor pollutant levels can be helpful in greening the overall project. Construction Managers work with the rest of the design team to determine the best value for

the owner, balancing cost and feasibility. They can also establish long-term sustainability and energy efficiency goals for the owner.

Important Tasks and Related Skills

This product was partially funded by a grant awarded by the U.S. Department of Labor's Employment & Training Administration. The information contained in this product was created by a grantee organization and does not necessarily reflect the official position of the U.S. Department of Labor. All references to non-governmental companies or organizations, their services, products, or resources are offered for informational purposes and should not be construed as an endorsement by the Department of Labor. This product is copyrighted by the institution that created it and is intended for individual organizational, non-commercial use only.

As the emerging green economy calls for more innovative and environmentally friendly products and practices, there will be changes to the work and worker requirements for Construction Managers, such as new tasks, skills, knowledge, and credentials. Each task below is matched to a sample skill required to carry out the task.

Task	Skill Used in this Task
Prepare and submit budget estimates and progress and cost tracking reports.	Management of Financial Resources
Develop construction budgets that compare green and nongreen construction alternatives in terms of short-term costs, long-term costs, or environmental impacts.	Administration and Management
Interpret and explain plans and contract terms to administrative staff, workers, and clients, representing the owner or developer.	Oral Comprehension
Procure Leadership in Energy Efficient Design (LEED) or other environmentally certified professionals to ensure responsible design and building activities or to achieve favorable LEED ratings for building projects.	Management of Personnel Resources
Develop and implement programs, such as safety, environmental protection, or quality control programs.	Monitoring
Study job specifications to determine appropriate construction methods.	Written Comprehension
Apply green building strategies to reduce energy costs or minimize carbon output or other sources of harm to the environment.	Building and Construction
Implement new or modified plans in response to delays, bad weather, or construction site emergencies.	Judgment and Decision Making
Implement training programs on environmentally responsible building topics to update employee skills and knowledge.	Learning Strategies

Source: U.S. Department of Labor Occupational Information Network (O*NET) at online.onetcenter.org

Working Conditions

Construction Managers oversee construction projects either from an off-site main office or a construction site field office. Some Managers may need to travel when they are responsible for more than one project. They may also need to go out of state to some sites. When projects take place in foreign countries, Managers usually take up temporary residence in that country.

Although the work usually is not inherently dangerous, injuries can occur. Therefore, Construction Managers should be trained in proper safety procedures to avoid risk of injury caused by uneven

ground, large machinery, noisy equipment, and heavy traffic.
Most Construction Managers work over 40 hours per week and can be on call 24 hours a day in order to deal with delays, bad weather, or emergencies at the site. This management job is not typically unionized.

Will This Job Fit Me?

This is a job that should appeal to those who like entrepreneurship, carrying out projects, leading people, and making decisions. The job may also be attractive to those who like working outside and enjoy work activities that include risk taking. Construction Managers should also have effective oral and written communications skills and time management skills.

What Wages and Benefits Can I Expect?

Wages

The median wage in 2019 for Construction Managers in California is $109,124 annually, or $52.47 hourly. The median is the point at which half of the workers earn more and half earn less.

Annual Wages for 2019	Low (25th percentile)	Median (50th percentile)	High (75th percentile)
California	$81,152	$109,124	$146,199

Source: EDD/LMID Occupational Employment Statistics Survey, 2019 at www.labormarketinfo.edd.ca.gov/data/wages.html Wages do not reflect self-employment.

Hourly Wages for 2019	Low (25th percentile)	Median (50th percentile)	High (75th percentile)
California	$39.01	$52.47	$70.29

Source: EDD/LMID Occupational Employment Statistics Survey, 2019 at www.labormarketinfo.edd.ca.gov/data/wages.html. Wages do not reflect self-employment.

Benefits

Benefits vary by employer, but generally include medical, dental, life, and vision insurance as well as vacation, sick leave, and retirement plans. Some receive tuition reimbursement, bonuses, and vehicle allowance or use of a company motor vehicle. Those who are self-employed are responsible for their own insurance and retirement plans.

What is the Job Outlook?

Most job openings will be created by the need to replace Construction Managers who retire or leave the field for other reasons. Opportunities may be best for Managers with advanced technical knowledge or extensive experience. Green economy activities and technologies may increase the demand for Construction Managers; however, like many occupations, employment may be sensitive to fluctuations in the economy.

Projections of Employment

In California, the number of Construction Managers is expected to grow much faster than average growth rate for all occupations. Jobs for Construction Managers are expected to increase by 17.9 percent, or 9,500 jobs between 2016 and 2026.

Estimated Employment and Projected Growth Construction Managers					
Geographic Area	Estimated	Projected	Numeric	Percent	Job

(Estimated Year-Projected Year)	Employment	Employment	Change	Change	Openings
California (2016-2026)	53,100	62,600	9,500	17.9	48,500

Source: EDD/LMID Projections of Employment by Occupation at www.labormarketinfo.edd.ca.gov/data/employment-projections.html

How Do I Qualify?

Education, Training, and Other Requirements

A bachelor's degree in construction science, construction management, building science, or civil engineering is generally the minimum educational level that employers will consider for a position as a Construction Manager. Construction Managers need to be knowledgeable in the California Green Building Standards Code (CALGreen) as well as Leadership in Energy and Environmental Design (LEED). Understanding of the whole building systems approach for successful integration of energy efficient design and knowledge of Storm Water Pollution Prevention Plans (SWPPP) and Occupational Safety & Health Administration (OSHA) regulations are valuable.

Experience

Fewer Construction Managers are being hired from the ranks of construction craft workers, such as carpenters, masons, plumbers, or electricians, than in the past. A bachelor's degree is increasingly becoming a standard educational requirement for the position. It is still possible; however, for experienced construction workers to move up to become Construction Managers. Hands-on construction experience is very important, whether gained through an internship, a job in the construction trades, or another job in the construction industry.

Early Career Planning

High school students interested in becoming Construction Managers should take courses in drafting, business, mathematics, computer science, English, and Spanish. The last is increasingly important due to the large numbers of monolingual Spanish speakers working on construction sites.

Continuing Education

Construction Managers who hold a LEED credential are required to take continuing education units every two years. Some Construction Managers also take additional college courses to enhance their job-related skills. They may take courses whose subject matter ranges from general management skills, to management skills specifically related to construction or technical knowledge of construction methods and practices.

Licensing and Certification

There is no license specifically for Construction Managers. However, those who are engineers obtain a Professional Engineer (PE) license in order to be able to approve engineering documents or oversee less experienced Engineers. Engineers are also required by the State to obtain a PE if their work may affect the public welfare. The PE is obtained through the California Department of Consumer Affairs, Board for Professional Engineers, Land Surveyors, and Geologists. The license must be renewed every two years.

Those who work as general contractors should be licensed by the California Contractors State License Board under the California Department of Consumer Affairs. Their Web site address is

www.cslb.ca.gov. Contact the agency that issues the license for additional information. Click on the license title below for details.

- Awnings Limited Specialty Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=69920
- Building Moving/Demolition Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=69919
- Concrete Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=6993
- Construction Clean-Up Limited Specialty Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=69924
- Construction Zone Traffic Control Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=6995
- General Building Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=6991
- Low Voltage Systems Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=6992
- Masonry Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=6994
- Non-Electrical Sign Installation Limited Specialty Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=69951
- Pool and Spa Maintenance Limited Specialty Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=69921
- Prefabricated Equipment Limited Specialty Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=69928
- Sand and Water Blasting Limited Specialty Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=69950
- Scaffolding Limited Specialty Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=69922
- Swimming Pool Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=6996
- Trenching Limited Specialty Contractor at www.labormarketinfo.edd.ca.gov/OccGuides/LicenseDetail.aspx?LicID=69923

Even though certification is not required to work in the construction industry, a number of Construction Managers are making the effort to become certified.

Numerous entities offer voluntary certification programs for Construction Managers. Requirements combine written examinations with verification of education and professional experience. The American Institute of Constructors awards the Associate Constructor (AC) and Certified Professional Constructor (CPC) designations. The Construction Management Association of America awards the Certified Construction Manager (CCM) designation. Applicants for the CCM also take a self-study course that covers the professional role of a Construction Manager.

Many Construction Managers obtain LEED credentialing. The LEED credential is awarded to those who complete programs regarding green building practices and principles and LEED requirements, resources, and processes. The certification exams are given by the United States Green Building Council (USGBC). To become a LEED Associate no work experience is necessary to take the exam, but in order to become a LEED Accredited Professional, experience is needed within three years of application with a project registered for or certified by LEED.

In California, Build it Green offers certifications, including Certified Green Building Professional (CGBP), requiring two days of training and an exam. For more information, go to the U.S. Department of Labor's Career InfoNet Web site at www.acinet.org and scroll down to "Career Tools."

Click on "Certification Finder" at www.acinet.org/certifications_new/default.aspx and follow the instructions to locate certification programs.

Where Can I Find Training?

There are two ways to search for training information at www.labormarketinfo.edd.ca.gov/resources/training-and-apprenticeships.html

- Search by Field of Study to find what programs are available and what schools offer those programs. You may use keywords such as: building or construction.
- Search by Training Provider to find schools by name, type of school, or location.

Contact the schools you are interested in to learn about the classes available, tuition and fees, and any prerequisite course work.

Where Would I Work?

The largest industries employing Construction Managers are as follows:

Industry Title	Percent of Total Employment for Occupation in California
Nonresidential Building Construction	13.7%
Residential Building Construction	12.9%
Building Equipment Contractors	9.1%
Building Foundation/Exterior Contractors	4.0%
Building Finishing Contractors	3.7%

Source: EDD/LMID Staffing Patterns at www.labormarketinfo.edd.ca.gov/data/employment-projections.html

Finding a Job

Direct application to employers is one of the most effective job search methods. Schools and training providers may operate placement centers for their students. Jobs may also be found through registration with temporary employment agencies and through classified advertisements in newspapers and trade publications. Internet job listings also provide helpful job leads. **Online job opening systems** include JobCentral at www.jobcentral.com and CalJOBS[SM] at www.caljobs.ca.gov.

To find your nearest One-Stop Career Center, go to Service Locator. View the helpful job search tips for more resources. (requires Adobe Reader).

Yellow Page Headings

You can focus your local job search by checking employers listed online or in your local telephone directory. Below are some suggested headings where you might find employers of Construction Managers.

- Construction Companies
- Contractors
- Heavy Construction
- Home Developers
- Steel Buildings

Find Possible Employers

To locate a list of employers in your area, use "Find Employers" on the LaborMarketInfo Web site at http://www.labormarketinfo.edd.ca.gov/aspdotnet/databrowsing/empMain.aspx?menuChoice=emp

- Select the search for employers by occupation.
- Select a geographic area.
- Search for an occupation by keyword, occupation, or category.
- Select one of the top industries that employ the occupation.
- This will give you a list of employers in that industry in your area.
- Click on "View Filter Selections" to limit your list to specific cities or employer size.
- Click on an employer for the street address, telephone number, size of business, Web site, etc.
- Contact the employer for possible employment.

Where Could This Job Lead?

Opportunities for advancement depend on a Construction Manager's level of performance and competence, and the size and type of employing company. In larger companies, it is possible to become a top-level manager or executive. With extensive experience, some may become independent consultants. Construction Managers may also establish their own construction management services, specialty contracting, or general contracting firm.

Related Occupations

Below is a list of occupations related to Construction Managers.

- Construction and Building Inspectors (SOC 47-4011)
- Cost Estimators (SOC 13-1051)
- First-Line Supervisors of Construction Trades and Extraction Workers (SOC 47-1011)

Other Sources

- California Building Standards Commission
    www.bsc.ca.gov
- California Department of Consumer Affairs, Board for Professional Engineers, Land Surveyors, and Geologists
    www.pels.ca.gov
- California Department of Housing and Community Development
    www.hcd.ca.gov
- American Council for Construction Education
    www.acce-hq.org
- American Institute of Constructors & Constructor Certification Commission
    www.professionalconstructor.org
- Colorado State University
    www.learn.colostate.edu/areas-of-study/constructionmgmt
- Construction Education Foundation
    www.agc-ca.org/cefoundation.aspx
- Construction Management Association of America
    www.cmaanet.org
- National Center for Construction Education and Research
    www.nccer.org
- U.S. Green Building Council
    www.usgbc.org

These links are provided for your convenience and do not constitute an endorsement by EDD.

For the Career Professional

The following codes are provided to assist counselors, job placement workers, or other career professionals.

System	Code
SOC - Standard Occupational Classification at www.bls.gov/soc/	11-9021
O*NET - Occupational Information Network at online.onetcenter.org/	
Construction Managers	11-9021.00
Interest Codes (RIASEC) at online.onetcenter.org/find/descriptor/browse/Interests/#cur	ERC
CIP - Classification of Instructional Programs at nces.ed.gov/pubs2002/cip2000/	
Business/Commerce, General	520101
Business Administration and Management, General	520201
TOP - Taxonomy of Programs at www.ccccurriculum.info/ (California Community Colleges)	
Business and Commerce, General	050100
Business Administration	050500
Business Management	050600

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www.labormarketinfo.edd.ca.gov

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FOOTHILL COLLEGE
Stand-Alone Course Approval Request

If a Foothill credit course is **NOT** part of a State approved associate's degree, certificate of achievement or the Foothill College GE Pattern, it is considered by the State to be a "Stand Alone Course." Per Title 5, local curriculum committees must review and approve proposed stand-alone courses to ensure that they are consistent with credit course standards (§55002), the community college mission and there is sufficient need and resources for the course. To be compliant with State regulations, there must be a completed, approved Stand Alone Form on file in the Office of Instruction.

Per our local process, the same process of review and approval is used for noncredit Stand Alone courses.

Stand Alone Course Approval Requests should be completed and forwarded to your Division Curriculum Committee to begin the approval process.

Course #:   R T 75

Course Title: Sectional Anatomy

Credit Status:
   X_____   Credit course
   _____   Noncredit course

Catalog Description:

Human anatomy of the head and body cavities is presented for the health care professional in transverse, sagittal and coronal imaging planes, with specific correlation to sonographic, computed tomographic and magnetic resonance imaging modalities. Anatomic reference points, intersecting planes and medical terminology are used to identify relationships of organs as well as pathologic alterations. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.

Are you requesting Stand Alone approval for the course on a <u>temporary</u> or <u>permanent</u> basis?

   X_____   The course will be **permanently** Stand Alone; there are no plans to add it to a State approved degree or certificate, nor to the Foothill GE pattern
   _____   The course will be Stand Alone **temporarily**, and it will be incorporated into a new degree or certificate that is not yet State approved. In this case, identify the degree/certificate to which the course will be added:

   o   What is the specific timeline for program application/approval? (e.g., is your program application locally approved, or is it still in development and if so, what is your anticipated submission date?)

NOTE: If you have not submitted your program application to the State by the end of the current academic year, you must reapply for permanent Stand Alone approval.

The Curriculum Committee must evaluate this application based on the following criteria:

Criteria A. Appropriateness to Mission
The Foothill College Mission states: Believing a well-educated population is essential to sustaining and enhancing a democratic society, Foothill College offers programs and services that empower students to achieve their goals as members of the workforce, as future students, and as global citizens. We work to obtain equity in achievement of student outcomes for all California student populations, and are guided by our core values of honesty, integrity, trust, openness, transparency, forgiveness, and sustainability. Foothill College offers associate degrees and certificates in multiple disciplines, and a baccalaureate degree in dental hygiene.

Please indicate how your course supports the Foothill College Mission (select all that apply):

	Transfer
X	Workforce/CTE
	Basic Skills

Criteria B. Need

A course may only be granted Stand Alone Approval if there is <u>demonstrable need</u> for the course in the college service area. Please provide evidence of the need or demand for your course, such as ASSIST documentation for transfer courses or Labor Market Information for workforce/CTE courses (if LMI is unavailable, advisory board minutes or employer surveys may be submitted). For basic skills courses, assessment-related data or information may be provided.

Evidence may be attached to this form or provided in the box below.

> Cross-sectional anatomy is necessary for the graduates of the Radiologic Technology program to advance into advanced modalities such as CT, MRI and Interventional Radiology. This is advanced beyond the content provided in the Radiologic Technology program, but is necessary to prepare graduates for the Fellowship courses in CT, MRI and Interventional Radiology, R T 70, 71 and 74. This course may be used in the future to create an advanced imaging certificate.

Criteria C. Curriculum Standards (please initial as appropriate)

   X   The outline of record for this course has been approved the Division Curriculum Committee and meets the requirements of Title 5

Faculty Requestor: <u>Rachelle Campbell</u>   **Date:** <u>10/24/19</u>

Division Curriculum Representative: <u>Lisa Schultheis</u>   **Date:** <u>10/31/19</u>

Date of Approval by Division Curriculum Committee: <u>10/31/19</u>

College Curriculum Co-Chairperson: **Date:**

Biological and Health Sciences

R T 75   SECTIONAL ANATOMY   **Summer 2020**

3 hours lecture.   **3 Units**

Total Contact Hours: 36   *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 108   *(Total of All Lecture, Lab hours and Out of Class X 12)*

Lecture Hours: 3 **Lab Hours:** 0   **Weekly Out of Class Hours:** 6

Note: If Lab hours are specified, the *item 10. Lab Content* field must be completed.

Repeatability -

Statement: Not Repeatable.

Status -

Course Status: Active	**Grading:**	Letter Grade Only
Degree Status: Applicable	**Credit Status:**	Credit
Degree or Certificate Requirement: Stand Alone Course		
GE Status: Non-GE		

Articulation Office Information -

C.I.D. Notation:

Transferability: CSU   **Validation:** 11/19

Division Dean Information -

Seat Count: 37   **Load Factor:** .067 **FOAP Code:** 114000141141122500

Cross Listed as: DMS 51A

Related ID:

Instruction Office Information -

FSA Code:

Distance Learning: yes

Stand Alone Designation: no

Program Title:

Program TOPs Code:

Program Unique Code:

Content Review Date:

Former ID:

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1. Description -

Human anatomy of the head and body cavities is presented for the health care professional in transverse, sagittal and coronal imaging planes, with specific correlation to sonographic, computed tomographic and magnetic resonance imaging modalities. Anatomic reference points, intersecting planes and medical terminology are used to identify

relationships of organs as well as pathologic alterations. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.

Prerequisites: BIOL 40A, 40B and 40C or equivalent.

2. Course Objectives -

The student will be able to:

    A. define and use reference points, planes, and terminology related to medical imaging.
    B. identify the anatomy of the head and brain, the thoracic cavity, and the abdomino-pelvic cavity in all three imaging planes.
    C. identify each described organ's internal anatomy.
    D. recognize gross pathologic alterations.
    E. compare and contrast the differences of image presentation by various imaging modalities.
    F. discuss the various medical equipment which views the human body as it relates to anatomy in sectional planes and the role of cultural group acceptance.

3. Special Facilities and/or Equipment -

    A. DVD/TV, internet access, computer, monitor, viewboxes.

4. Course Content (Body of knowledge) -

    A. Anatomical Terminology and Orientation
        1. Review of medical terminology
        2. Body planes
        3. Orientation of anatomy in the cross section and saggital planes
    B. Sectional Anatomy of Organs and Systems
        1. Cranium
        2. Facial Bones
        3. Brain
        4. Neck
        5. Thorax
        6. Heart
        7. Abdomen
        8. GI system
        9. GU system
        10. Muscles
        11. Pelvis
        12. Skeletal system
    C. Pathology of Organs and Systems
    D. Comparative Analysis of CT, MRI, sonography

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

    A. Quizzes
    B. Examinations
    C. Comprehensive final examination

7. Representative Text(s) -

Kelley, Lorrie L., and Petersen, Connie M. <u>Sectional Anatomy for Imaging Professionals.</u> 4th ed. St. Louis: Mosby-Year Book, 2018.
Kelley, Lorrie L., and Petersen, Connie M. <u>Sectional Anatomy Study Guide.</u> 4th ed. St. Louis: Mosby-Year Book, 2018.

8. Disciplines -

Radiological Technology

9. Method of Instruction -

    A. Lecture presentations
    B. Classroom discussions

C. Assessments, participation and homework

10. Lab Content -

Not applicable.

12. Examples of Required Reading and Writing and Outside of Class Assignments -

A. Weekly reading assignments from text.
B. Completion of workbook chapters.
C. Homework from review questions at the end of each chapter of the textbook.

13. Need/Justification -

This course is an opportunity for graduates of the Radiologic Technology Program to gain required knowledge necessary for the pursuit of an additional credential in Computed Tomography (CT), Magnetic Resonance Imaging (MRI), and Interventional Radiology.