College Curriculum Committee Meeting Agenda
Tuesday, June 19, 2018
2:00 p.m. – 3:30 p.m.
President's Conference Room

Item	Action	Attachment(s)	Presenter
1. Minutes: May 8, 2018	Action	#6/19/18-1	Campbell
2. Minutes: May 22, 2018	Action	#6/19/18-2	Campbell
3. Minutes: June 5, 2018	Action	#6/19/18-3	Campbell
4. Report Out from Division Reps	Discussion		All
5. Announcements a. Notification of Proposed Requisites b. CCC Meeting Dates for 2018-19 c. Child and Adolescent Development ADT Approval d. Math Changes Affecting Requisites	Information	 #6/19/18-4 #6/19/18-5	Campbell
6. Stand Alone Approval Request: MATH 248A	2nd Read/ Action	#6/19/18-6	Campbell
7. Stand Alone Approval Request: R T 74	2nd Read/ Action	#6/19/18-7	Campbell
8. Stand Alone Approval Request: R T 201	2nd Read/ Action	#6/19/18-8	Campbell
9. Stand Alone Approval Request: R T 202	2nd Read/ Action	#6/19/18-9	Campbell
10. Stand Alone Approval Request: THTR 25C	2nd Read/ Action	#6/19/18-10	Campbell
11. Stand Alone Approval Request: THTR 40B	2nd Read/ Action	#6/19/18-11	Campbell
12. Stand Alone Approval Request: THTR 45C	2nd Read/ Action	#6/19/18-12	Campbell
13. Stand Alone Approval Request: THTR 45D	2nd Read/ Action	#6/19/18-13	Campbell
14. Stand Alone Approval Request: THTR 46A	2nd Read/ Action	#6/19/18-14	Campbell
15. Stand Alone Approval Request: THTR 46B	2nd Read/ Action	#6/19/18-15	Campbell
16. Stand Alone Approval Request: THTR 49B	2nd Read/ Action	#6/19/18-16	Campbell
17. Stand Alone Approval Request: THTR 49C	2nd Read/ Action	#6/19/18-17	Campbell
18. Stand Alone Approval Request: THTR 49D	2nd Read/ Action	#6/19/18-18	Campbell
19. New Program Application: Makerspace Coordinator Certificate of Achievement	2nd Read/ Action	#6/19/18-19—20	Campbell
20. Request to Add MATH 180 to AA/AS Degree Minimum Proficiency List	2nd Read/ Action	#6/19/18-21—22	Campbell
21. Good of the Order			Campbell
22. Adjournment			Campbell

Attachments:

#6/19/18-1	Draft Minutes: May 8, 2018
#6/19/18-2	Draft Minutes: May 22, 2018
#6/19/18-3	Draft Minutes: June 5, 2018
#6/19/18-4	CCC Notification of Proposed Requisites
#6/19/18-5	CCC Meeting Dates for 2018-19
#6/19/18-6	Stand Alone Approval Request: MATH 248A
#6/19/18-7	Stand Alone Approval Request: R T 74
#6/19/18-8	Stand Alone Approval Request: R T 201
#6/19/18-9	Stand Alone Approval Request: R T 202
#6/19/18-10	Stand Alone Approval Request: THTR 25C
#6/19/18-11	Stand Alone Approval Request: THTR 40B
#6/19/18-12	Stand Alone Approval Request: THTR 45C
#6/19/18-13	Stand Alone Approval Request: THTR 45D
#6/19/18-14	Stand Alone Approval Request: THTR 46A
#6/19/18-15	Stand Alone Approval Request: THTR 46B
#6/19/18-16	Stand Alone Approval Request: THTR 49B
#6/19/18-17	Stand Alone Approval Request: THTR 49C
#6/19/18-18	Stand Alone Approval Request: THTR 49D
#6/19/18-19	Makerspace Coordinator CA Narrative (updated)
#6/19/18-20	Makerspace Coordinator CA LMI
#6/19/18-21	PSME Request for MATH 180 (COR updated)
#6/19/18-22	Previous version of MATH 180 COR

2017-2018 Curriculum Committee Meetings:

Fall 2017 Quarter	Winter 2018 Quarter	Spring 2018 Quarter
~~10/3/17~~	~~1/23/18~~	~~4/24/18~~
~~10/24/17~~	~~2/6/18~~	~~5/8/18~~
~~11/14/17~~	~~2/20/18~~	~~5/22/18~~
~~11/21/17~~	~~3/6/18~~	~~6/5/18~~
~~12/5/17~~	~~3/20/18~~	6/19/18

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

2017-2018 Curriculum Deadlines:

~~*12/1/17*~~	Deadline to submit courses to CSU for CSU GE approval (Articulation Office).
~~*12/1/17*~~	Deadline to submit courses to UC/CSU for IGETC approval (Articulation Office).
~~*2/1/18*~~	Curriculum Sheet updates for 2018-19 catalog (Faculty/Divisions).
~~*2/15/18*~~	Deadline to submit local GE applications for 2017-18 catalog (Faculty/Divisions).
~~*6/1/18*~~	Deadline to submit new/revised courses to UCOP for UC transferability (Articulation Office).
6/22/18	COR/Title 5 updates for 2019-20 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), Mark Anderson (FA), Ben Armerding (LA), Rachelle Campbell (Faculty Co-Chair), Zachary Cembellin (PSME), Sara Cooper (BH), Bernie Day (Articulation Officer), LeeAnn Emanuel (SRC), Isaac Escoto (AS President), Hilda Fernandez (LA), Marnie Francisco (PSME), Evan Gilstrap (CNSL), Brenda Hanning (BH), Kurt Hueg (Dean, BSS), Eric Kuehnl (FA), Kristy Lisle (VP Instruction), Kent McGee (Evaluations), Bruce McLeod

(Apprenticeship), Ronnie Miller (ASFC), Tiffany Rideaux (BSS), Katy Ripp (KA), Ben Schwartzman (SRC), Lety Serna (CNSL), Barbara Shewfelt (KA), Nanette Solvason (Dean, BH), Paul Starer (Dean, LA, Administrator Co-Chair), Mary Vanatta (Curriculum Coordinator), Anand Venkataraman (PSME), Bill Ziegenhorn (BSS)

Updated 4/24/18

COLLEGE CURRICULUM COMMITTEE

Committee Members - 2017-18

Meeting Date: 6/19/18

Co-Chairs (2)

✓	Rachelle Campbell	7469	Vice President, Academic Senate (tiebreaker vote only)	campbellrachelle@fhda.edu
✓	Paul Starer	7227	Dean of Language Arts and Learning Resource Center	starerpaul@fhda.edu

Voting Membership (12 total; 1 vote per division)

✓	Micaela Agyare (S)	7086	Library	agyaremicaela@fhda.edu
	Mark Anderson	7156	FA	andersonmark@fhda.edu
✓	Benjamin Armerding	7453	LA	armerdingbenjamin@fhda.edu
	Zachary Cembellin	7383	PSME	cembellinzachary@fhda.edu
✓	Sara Cooper	7595	BH	coopersara@fhda.edu
✓	Bernie Day	7225	Articulation	daybernie@fhda.edu
✓	Hilda Fernandez	7542	LA	fernandezhilda@fhda.edu
✓	Marnie Francisco	7420	PSME	franciscomarnie@fhda.edu
✓	Evan Gilstrap	7675	CNSL	gilstrapevan@fhda.edu
✓	Brenda Hanning	7466	BH	hanningbrenda@fhda.edu
	Kurt Hueg	7394	Dean—BSS	huegkurt@fhda.edu
✓	Eric Kuehnl	7479	FA	kuehnleric@fhda.edu
✓	Tiffany Rideaux	7412	BSS	rideauxtiffany@fhda.edu
✓	Katy Ripp (W & S)	7355	KA	rippkaty@fhda.edu
	Leticia Serna	7059	CNSL	sernaleticia@fhda.edu
	Barbara Shewfelt (F)	7658	KA	shewfeltbarbara@fhda.edu
✓	Nanette Solvason	7730	Dean—BH	solvasonnanette@fhda.edu
	Mary Thomas (F & W)	7522	Library	thomasmary@fhda.edu
	Anand Venkataraman	7495	PSME	venkataramananand@fhda.edu
✓	Bill Ziegenhorn	7799	BSS	ziegenhornbill@fhda.edu

Non-Voting Membership (4)

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

Visitors

Ram Subramaniam, Lee Ann Emanuel, Ben Schwartzman

College Curriculum Committee
Meeting Minutes
Tuesday, May 8, 2018
2:00 p.m. – 3:30 p.m.
President's Conference Room

Item	Discussion
1. Minutes: April 24, 2018	**Approved by consensus.**
2. Report Out from Division Reps	**Speaker: All** BSS: Working on Title 5 courses and supplemental forms. Bio Health: Working on Title 5 courses; end-of-year curriculum. Counseling: FYE (First Year Experience) has been put on hold for 2018-19, due to AB 705. May revisit for 2019-20. PSME: No updates. Fine Arts: No updates. Language Arts: Rep asked if new Distance Ed forms will be required for courses going through Title 5 review—Campbell advised reps to follow current process of not requiring new form (unless form on file needs updated). Developing new Gothic Lit course, which will replace current Vampire Lit course (ENGL 18A). English and ESLL depts. continue to work to address AB 705; will likely implement changes no earlier than fall 2019. Armerding officially announced his candidacy for CCC co-chair. Library: No updates. Kinesiology: No updates. Campbell noted upcoming ASCCC regional curriculum meeting, which will focus on AB 705: Friday, May 18th at San Jose City College. Please attend if you are interested.
3. Announcements a. New Course Proposals	**Speaker: Rachelle Campbell** The following proposals were presented: BIOL 81; HORT 400A, 400B, 400C, 401A, 401B, 401C, 401D, 401E, 401F; LINC 401, 402; MATH 180, 248A; R T 61A, 201, 202. Please share with your constituents. PSME rep asked about noncredit categories and how HORT courses fit—there are 10 categories; HORT courses will use Short-term Vocational. Starer noted that a noncredit course must fit one of the 10 categories. Counseling rep asked for clarification regarding noncredit subject codes—last year, CCC did not approve proposal to require noncredit to use "NC" subject codes; depts. have option to use one code for both credit and noncredit. PSME rep asked if catalog makes clear when a course is noncredit—yes, there is a notation on the course, and the Course Numbering System specifies 400-leve as noncredit. Campbell noted that HORT 401 series courses are noncredit versions of new landscape certification credit courses. Campbell asked if students working in MakerSpace will be required to take these LINC courses before they may use tools/machines—yes, per BSS. Day asked if LINC courses fit Short-term Vocational category—

	unlikely; could fit Workforce Preparation category. Campbell noted that faculty might not realize noncredit courses must fit a category; better communication might be necessary. Note that MATH 180 will be 4 hours lecture + 1 hour lab (proposal states 5 hours lecture).
b. Apprenticeship GE Mapping	Paul Starer presented topic. Next step in Apprenticeship division's efforts to determine if GE credit can be given to apprentices for work they are already doing within their existing apprenticeship curriculum: Office of Instruction will work with discipline faculty at Foothill to map curriculum. Following this, discussion will occur at CCC regarding next steps. Day asked if conceivable that a student could receive an associate degree without taking, for example, a MATH course, if it is determined that the skills are gained within the apprenticeship curriculum—yes.
c. ASSIST Update	Bernie Day presented topic. ASSIST software being upgraded, and information on the public site is outdated. Students and faculty cannot see articulation of new courses. Might not be fixed until fall. Day will be publishing a list online to communicate new approvals; please help get the word out.
4. Removal of CRWR 25A from Foothill GE Area II—English	**Speaker: Rachelle Campbell** CRWR 25A was approved to be added to Area II—English for 2018-19. The English dept. discussed the addition and determined that the course does not satisfy enough of the Area II requirements and should not be added. Motion to approve **M/S** (Serna, Armerding). **Approved.**
5. Foothill CLEP Policy	**Speaker: Bernie Day** Nazy Galoyan and Kent McGee present for discussion. Second read of document, which includes new language for 2018-19 catalog (outlining current Foothill policy to pass-along CLEP credit toward CSU GE certification), as well as proposal to award CLEP credit locally, for students who use Foothill GE pattern. Reminder that this would not grant a student course-to-course credit, just general credit for the applicable GE area. McGee noted recent spike in CLEP scores. Galoyan noted CLEP helps low income students, veterans, and other under-represented groups. CLEP would provide another pathway for a student who exhausts attempts to take a course (due to repeatability rules). PSME rep asked how policy would change prerequisite waiver process—no change; student would still need to use waiver process, even if CLEP accepted for Foothill GE. Motion to approve **M/S** (Serna, Armerding). **Approved.** 1 abstention.
6. Stand Alone Approval Request: THTR 25C	**Speaker: Rachelle Campbell** First read of Stand Alone Approval Request for THTR 25C. Course is being removed from the curriculum sheet for the Theatre Arts AA degree for 2018-19, prompting need for Stand Alone approval. Second read and possible action will occur at next meeting.
7. Stand Alone Approval Request: THTR 40B	**Speaker: Rachelle Campbell** First read of Stand Alone Approval Request for THTR 40B. Being removed from the curriculum sheet for the Theatre Arts AA degree for 2018-19, prompting need for Stand Alone approval.

	Second read and possible action will occur at next meeting.
8. Stand Alone Approval Request: THTR 45C	**Speaker: Rachelle Campbell** First read of Stand Alone Approval Request for THTR 45C. Being removed from the curriculum sheet for the Theatre Arts and Theatre Technology AA degrees for 2018-19, prompting need for Stand Alone approval. Second read and possible action will occur at next meeting.
9. Stand Alone Approval Request: THTR 45D	**Speaker: Rachelle Campbell** First read of Stand Alone Approval Request for THTR 45D. Being removed from the curriculum sheet for the Theatre Arts AA degree for 2018-19, prompting need for Stand Alone approval. Second read and possible action will occur at next meeting.
10. Stand Alone Approval Request: THTR 46A	**Speaker: Rachelle Campbell** First read of Stand Alone Approval Request for THTR 46A. Being removed from the curriculum sheet for the Theatre Arts AA degree for 2018-19, prompting need for Stand Alone approval. Second read and possible action will occur at next meeting.
11. Stand Alone Approval Request: THTR 46B	**Speaker: Rachelle Campbell** First read of Stand Alone Approval Request for THTR 46B. Being removed from the curriculum sheet for the Theatre Arts AA degree for 2018-19, prompting need for Stand Alone approval. Second read and possible action will occur at next meeting.
12. Stand Alone Approval Request: THTR 49B	**Speaker: Rachelle Campbell** First read of Stand Alone Approval Request for THTR 49B. Being removed from the curriculum sheet for the Theatre Arts AA degree for 2018-19, prompting need for Stand Alone approval. Second read and possible action will occur at next meeting.
13. Stand Alone Approval Request: THTR 49C	**Speaker: Rachelle Campbell** First read of Stand Alone Approval Request for THTR 49C. Being removed from the curriculum sheet for the Theatre Arts AA degree for 2018-19, prompting need for Stand Alone approval. Second read and possible action will occur at next meeting.
14. Stand Alone Approval Request: THTR 49D	**Speaker: Rachelle Campbell** First read of Stand Alone Approval Request for THTR 49D. Being removed from the curriculum sheet for the Theatre Arts AA degree for 2018-19, prompting need for Stand Alone approval. Second read and possible action will occur at next meeting.
15. Programs and Federal Financial Aid	**Speaker: Mary Vanatta, Paul Starer, Bernie Day** Continuing discussion from previous meeting. Vanatta consulted curriculum specialist colleague on state-wide curriculum committee (5C) who advised on process used at her college to update legacy programs in CCCCO's system. Vanatta spoke with CCCCO reviewer for Foothill, who approved the proposed plan—updates to legacy programs may be submitted with just one required attachment, Item 3 (Program Requirements) of the Narrative (which lists the core/support courses). Any available historical documents should also be attached; Vanatta has scanned all relevant documents from her paper files. Next steps are to verify the new deadline given to us by the feds and prioritize list of programs for submission to the state. Vanatta will follow up with divisions if any additional information needed.

	Day noted that the above does not include ADTs; we are still required to resubmit full ADT documents. Has heard from many faculty already to set up meetings for review.
16. AB 705-related Changes in Math	**Speakers: Zachary Cembellin, Marnie Francisco, Anand Venkataraman (PSME reps)** (Topic moved to top of the agenda.) Patrick Morriss, Jennifer Sinclair, and Ram Subramaniam present for discussion. Attachment outlines Math dept. plan to comply with AB 705, effective fall 2018. Will no longer offer Math My Way sequence (MATH 235/230/230J) or MATH 220; still discussing noncredit courses. Higher-level students will continue to place normally; changes affect those who place into lower-level courses. Any student will be able to take MATH 48A with a corequisite support course, or place into 48A (without corequisite) using multiple measures. MATH 105 will still be offered and serve as prerequisite to 48A. MATH 10 will have embedded tutor in every section. Cohort model for 48A (students who take w/ corequisite will all be in same section(s)). STATWAY (MATH 217/17) will still be offered. MATH 44 will be same model as 10 (embedded support). MATH 42 will likely become more popular when Elementary Teacher Education ADT approved. Developing new course in quantitative reasoning (MATH 180)—hope is it will be approved to meet minimum proficiency requirement for AA/AS degree, like 105. Designed as a culturally-relevant alternative to 105. Will not serve as a prerequisite for other MATH courses. AB 705 data shows group of students coming out of high school with GPAs around 2.3 and lower, when put directly into statistics course with support, performed much better as a group than when starting in lower-level course, but still only a 40% achievement rate. Faculty took this group into account when developing 180 curriculum. Also considering integrating services, such as Financial Aid and Counseling, into course content. Dept. planning a lot of professional development for faculty. Day asked if MATH 10 will have a change in prereq—not changing from current (MATH 105 or appropriate placement). MATH 48A requisite language is a new situation for Foothill, as some students will be required to take the corequisite but some will not (by satisfying prerequisite)—Day waiting for feedback from UC regarding language faculty used on COR submission. Day asked if a student may self-place into MATH 17—still must take MATH 217 first. Subramaniam will recommend STATWAY for students who feel they need more time with statistics. Campbell asked if multiple measures piece ready— Subramaniam stated is being finalized; conversations with Galoyan and others are ongoing. Counseling rep asked about communication with Allied Health programs that have 105 as prerequisite, and would MATH 180 meet that requirement— Subramaniam stated that for the moment it will remain just 105; awaiting response from the state regarding allowing 180 to meet the same requirement. Day asked if any discussion with BSS regarding PSYC 7/SOC 7 and potential for supplemental instruction for those students (similar to support being added to MATH 10)— Subramaniam noted MATH 10 support will be embedded within existing course, not additional. Noted that AB 705 doesn't cover PSYC or SOC, so nothing is mandated for those courses. Counseling asked what is being communicated to students

	currently going through Math My Way, and what will be the process—MMW faculty have already done multiple measures placement for every MMW student and have had conversations with them; some MMW students chose to remain in MMW even when given opportunity to place into higher level. In the fall, any remaining MMW students will need to move to MATH 48A (likely with the corequisite) or MATH 180. Students were not told that this will be the last quarter of MMW, because at the time this was not known, but faculty were clear to students that they would likely need to move out of MMW. Sinclair asked about process to get MATH 180 approved as math proficiency requirement for AA/AS—PSME rep noted that previous addition of MATH 17 was voted on at CCC. Campbell stated same process may be used for 180.
17. Budget, Roadblocks, Curriculum—Oh, My!	**Speakers: Rachelle Campbell, Bernie Day, Paul Starer, Mary Vanatta (CCC Team)** Starer presented on the budget. Currently our funding determined by enrollment; in a "bad budget" year we focus on productivity, and end up cancelling courses with low enrollment. Current budget crisis somewhat different than the previous—more a local crisis than state-wide; neighboring colleges aren't necessarily also in crisis. In terms of curriculum, district under pressure to assess programs with fiscal impacts at the forefront. Recent focus on noncredit. As ramifications settle and impact curriculum, may be important to include budgetary considerations when discussing new programs, and topics like AB 705. PSME rep asked why noncredit appealing during budget crisis—faculty paid less for noncredit, so if we receive the same apportionment (for noncredit courses in a state-approved program) but pay faculty less, that's positive financially. Noncredit are repeatable. Bio Health rep asked how faculty are paid for courses that combine credit and noncredit studnets (e.g., EMT)—Campbell noted no way to differentiate between the students, in terms of determining load for faculty. Starer imagined a situation in which CCC recommends approval of a program but district vetoes. Campbell noted possible discussions at district regarding moving programs to/from De Anza (or consolidating programs that both colleges currently offer independently)—PSME rep noted Geology and other programs lost to De Anza during a previous budget crisis. Bio Health rep asked about potential of funding model changing—Starer does not have specific details with him, but proposed new models involve many different factors. Some colleges throughout CA have spoken out against drastic and sudden changes to funding model. Starer stressed importance of curriculum decisions (including deactivating courses) being made in the best interest of students. Campbell noted that CCC needs to revive topic of addressing non-transcriptable certificates that could be changed to certificates of achievement. Kinesiology rep asked about timeliness of discussions at CCC, due to the timeline of our curriculum process and the bulk of budget reductions targeting 2019-20—Starer noted that we will likely need to include budgetary considerations in discussions soon, for this reason.
18. Spring Plenary Resolutions	**Speaker: Rachelle Campbell** Campbell forwarded approved resolutions packet with agenda.

	Noted concerns brought by faculty state-wide at plenary session: general agreement to oppose the creation of a proposed 115th CA community college; feeling a lack of (or not enough) collegial consultation from the CCCCO with ASCCC (e.g., 115th college, AB 705, performance-based funding). Some colleges have passed votes of no confidence about Chancellor Oakley, related to these concerns.
19. Good of the Order	
20. Adjournment	**3:30 PM**

Attendees: Micaela Agyare (LIBR), Ben Armerding (LA), Rachelle Campbell (Faculty Co-Chair), Zachary Cembellin (PSME), Sara Cooper (BH), Bernie Day (Articulation Officer), Marnie Francisco (PSME), Evan Gilstrap (CNSL), Brenda Hanning (BH), Nazy Galyoan (guest—Dean of Enrollment Services), Eric Kuehnl (FA), Kent McGee (Evaluations), Patrick Morriss (guest—PSME), Rosa Nguyen (PSME), Tiffany Rideaux (BSS), Katy Ripp (KA), Lety Serna (CNSL), Jennifer Sinclair (guest—PSME), Paul Starer (Dean, LA, Administrator Co-Chair), Ram Subramaniam (guest—Dean, PSME), Mary Vanatta (Curriculum Coordinator), Anand Venkataraman (PSME)

Minutes Recorded by: M. Vanatta

College Curriculum Committee
Meeting Minutes
Tuesday, May 22, 2018
2:00 p.m. – 3:30 p.m.
President's Conference Room

Starer adjourned the meeting at 2:10 p.m. due to lack of a quorum. All agenda items were delayed until next meeting.

Attendees: Bernie Day (Articulation Officer), LeeAnn Emanuel (SRC), Evan Gilstrap (CNSL), Paul Starer (Dean, LA, Administrator Co-Chair), Mary Vanatta (Curriculum Coordinator)

Minutes Recorded by: M. Vanatta

College Curriculum Committee
Meeting Minutes
Tuesday, June 5, 2018
2:00 p.m. – 3:30 p.m.
President's Conference Room

Item	Discussion
1. Minutes: May 8, 2018	Topic moved to next meeting, due to lack of a quorum.
2. Minutes: May 22, 2018	Topic moved to next meeting, due to lack of a quorum.
3. Report Out from Division Reps	**Speaker: All** Starer announced that, although CCC does not have a quorum today, the announcements will still be presented and the group will still review the first read items. Hope is to have a quorum at the next meeting for approval of items, as it will be the final CCC meeting of the quarter and certain items are mission critical. Nothing to report from any of the divisions present.
4. Announcements a. New Course Proposals	**Speaker: Rachelle Campbell** The following proposals were presented: ENGL 18B, 246A; KINS 50; LINC 405; NCBS 408; PHDA 15A, 15B, 15C, 401. Please share with your constituents. Campbell noted that ENGL 246A is a credit course, whereas Foothill's existing supplemental instruction courses are noncredit. Language Arts rep noted course being developed due to AB 705; however, as faculty have suspended meetings due to work to contract action, she does not have enough information to respond. Campbell noted similarity between ENGL 246A and MATH 248A; suggested faculty discuss with Math dept. Language Arts rep noted similarity between KINS 50 and ENGL 38, in content and other aspects. Division would like clarity regarding process and transparency, related to overlap like this, and including question of whether it is a problem for both courses to be offered. Campbell noted CCC had begun conversation this year regarding such collaboration/process, with hope of drafting a guiding document, but nothing yet proposed. Recommends CCC resume such discussions next year, including concept of applying different lenses when reviewing courses (e.g., what type of student would take KINS 50 vs. ENGL 38). SRC rep noted recent process and positive collaboration regarding new MATH 180 course—met with Math dept. faculty to discuss and adjust COR language, which includes Counseling-related content. Pennington noted he consulted KINS 50 faculty to meet with Media Studies dept. regarding overlap; believes faculty did not realize potential overlap with ENGL course. Hueg noted issue of competing courses affecting enrollment. Kyle Brumbaugh present to discuss LINC 405. Being created to respond to a request from faculty teaching technology (e.g. GIST) finding students do not have the requisite skills upon starting courses. Hueg asked how course will be offered, as proposal states "8 hours total per quarter"—SARS system will be used to track attendance. Starer noted that if SARS is used (open-entry, open-exit format), hours cannot be limited in this way. Suggestion to use an hourly range on the COR, in the manner of existing supplemental instruction courses. Starer noted 10 noncredit

	categories and concern that course description does not fit within Short-Term Vocational. Campbell suggested faculty mimic existing supplemental instruction courses (e.g., NCBS 405 and NCBH 400) when drafting COR.
b. Upcoming Deadlines	Vanatta reminded the group about the June 22nd deadline for CORs to be in Review1 status in C3MS, for the 2019-20 catalog. Same deadline for new and updated CORs, including those on the Title 5 list. Vanatta sent an updated Title 5 list to the reps on May 23rd and plans to check in once or twice more (if necessary) before the deadline. Campbell noted that curriculum is part of faculty contract and that current work to contract action does not remove the need to address Title 5 list.
c. W Proposal	Foothill considering creating multiple W grade codes, including withdrawing related to military service, and differentiating between a student leaving a course mid-quarter and attending for the full quarter. Discussions are ongoing.
5. Stand Alone Approval Request: THTR 25C	**Speaker: Rachelle Campbell** Topic moved to next meeting, due to lack of a quorum.
6. Stand Alone Approval Request: THTR 40B	**Speaker: Rachelle Campbell** Topic moved to next meeting, due to lack of a quorum.
7. Stand Alone Approval Request: THTR 45C	**Speaker: Rachelle Campbell** Topic moved to next meeting, due to lack of a quorum.
8. Stand Alone Approval Request: THTR 45D	**Speaker: Rachelle Campbell** Topic moved to next meeting, due to lack of a quorum.
9. Stand Alone Approval Request: THTR 46A	**Speaker: Rachelle Campbell** Topic moved to next meeting, due to lack of a quorum.
10. Stand Alone Approval Request: THTR 46B	**Speaker: Rachelle Campbell** Topic moved to next meeting, due to lack of a quorum.
11. Stand Alone Approval Request: THTR 49B	**Speaker: Rachelle Campbell** Topic moved to next meeting, due to lack of a quorum.
12. Stand Alone Approval Request: THTR 49C	**Speaker: Rachelle Campbell** Topic moved to next meeting, due to lack of a quorum.
13. Stand Alone Approval Request: THTR 49D	**Speaker: Rachelle Campbell** Topic moved to next meeting, due to lack of a quorum.
14. New Program Application: Makerspace Coordinator Certificate of Achievement	**Speaker: Rachelle Campbell** First read of new Makerspace Coordinator Certificate of Achievement. Note that PaRC reading occurring in parallel with CCC, due to timing of remaining meetings for this year. Brumbaugh presented program. K-12 students in CA now take standardized tests on digital devices; many schools purchased tablets/computers for all students, making old-style computer labs obsolete—some are converting to Makerspaces. Schools have reached out to KCI for guidance on creating a Makerspace, and LINC faculty have discovered that the teacher or computer lab aide designated to run new Makerspace does not have the requisite skills/knowledge. Program will provide such, including basic coding, basic 3-D fabrication/design, design thinking. Many public and private schools in our area have visited KCI regarding Makerspace implementation. Program is also part of Makerspace-related grant proposal. Apprenticeship rep asked if all the courses already exist—yes. Asked about online component of program—hybrid; discussing how to minimize time required for students to be on campus while ensuring needed hands-on instruction occurs. Second read and possible action will occur at next meeting.

15. Request to Add MATH 180 to AA/AS Degree Minimum Proficiency List	**Speaker: Rachelle Campbell** First read of request by Math dept. to add MATH 180 to list of courses meeting minimum proficiency in math, for Foothill AA/AS degrees. If approved, course will likely become active fall 2018 quarter, and the updated list will be: MATH 17 or 105 or 108 or 180. Campbell noted enthusiastic response from faculty in Bio Health division regarding proposal. Vanatta announced that faculty will be making minor adjustments to COR language, based on meeting mentioned by SRC rep *[see item 4]*; such adjustments will not affect course content and will be made ahead of second read. Second read and possible action will occur at next meeting.
16. Stand Alone Approval Request: MATH 248A	**Speaker: Rachelle Campbell** First read of Stand Alone Approval Request for MATH 248A. Will be permanently Stand Alone. No comments. Second read and possible action will occur at next meeting.
17. Stand Alone Approval Request: R T 74	**Speaker: Rachelle Campbell** First read of Stand Alone Approval Request for R T 74. Will be permanently Stand Alone. Course being reactivated. Post-graduate course for licensed students, offered through Stanford (Foothill faculty member assigned to students, which will be limited to three per quarter). Upon completion, student may stand for board certification for CT. Unprecedented opportunity for students. Plan is to create similar course for MRI and other technologies. Second read and possible action will occur at next meeting.
18. Stand Alone Approval Request: R T 201	**Speaker: Rachelle Campbell** First read of Stand Alone Approval Request for R T 201. Will be permanently Stand Alone. Provides continuing education required by state of CA to maintain licensure. Second read and possible action will occur at next meeting.
19. Stand Alone Approval Request: R T 202	**Speaker: Rachelle Campbell** First read of Stand Alone Approval Request for R T 202. Will be permanently Stand Alone. Provides continuing education required by state of CA to maintain licensure. Second read and possible action will occur at next meeting.
20. Math Changes Affecting Requisites	**Speakers: Math department faculty** Topic moved to next meeting, due to Math dept. faculty not in attendance.
21. Non-transcriptable Certificates	**Speaker: Rachelle Campbell** Topic moved to next meeting, due to low rep attendance.
22. Good of the Order	
23. Adjournment	**2:50 PM**

Attendees: Kyle Brumbaugh (guest—KCI), Rachelle Campbell (Faculty Co-Chair), LeeAnn Emanuel (SRC), Hilda Fernandez (LA), Kurt Hueg (Dean, BSS), Bruce McLeod (Apprenticeship), Simon Pennington (Dean, FA & KA), Nanette Solvason (Dean, BH), Paul Starer (Dean, LA, Administrator Co-Chair), 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	Editor	Requisite Course Number & Title	New/Ongoing
MATH 48A: Precalculus I	Z. Cembellin	Coreq: MATH 248A (Just-in-Time Support for MATH 48A) - *note that coreq applies only to students who do not meet the prereq requirement*	Updated requisites for fall 2018
MATH 248A: Just-in-Time Support for MATH 48A	Z. Cembellin	Coreq: MATH 48A (Precalculus I)	New course for fall 2018
R T 61A: Radiology Research Project II	M. Wu	Prereq: R T 53D (Applied Radiologic Technology IV)	New course for fall 2018
R T 61B: Radiology Research Project II	M. Wu	Prereq: R T 61A (Radiology Research Project I)	Updated requisites for fall 2018
R T 74: Advanced Clinical Experience: Computed Tomography	R. Campbell	Prereq: R T 62A (Advanced Modalities in Imaging) and R T 62C (Professional Development in Radiology)	Reactivated course for fall 2018; updated requisites

Foothill College
College Curriculum Committee
2018-19 Meeting Dates

Fall Quarter:	Winter Quarter:	Spring Quarter:
October 2	January 22	April 23
October 16	February 5	May 7
October 30	February 19	May 21
November 13	March 5	June 4
November 27	March 19	June 18

All meetings fall on Tuesday and will be held from 2:00 p.m. – 3:30 p.m. in the President's Conference Room.

Note: Meeting dates are tentative and subject to change. The final schedule will be confirmed via calendar invitations sent to CCC Reps via email.

Ensure you're using the current version of this form by downloading a fresh copy from the CCC webpage!

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 #: MATH 248A

Course Title: Just-In-Time Support for MATH 48A

Credit Status:

X Credit course
____ Noncredit course

Catalog Description:

A just-in-time approach to the core prerequisite skills, competencies, and concepts needed in Precalculus I. Intended for students majoring in science, technology, engineering, and mathematics who are concurrently enrolled in MATH 48A at Foothill College. Topics include: a review of computational skills developed in beginning and intermediate algebra, including factoring, graphing linear equations, solving absolute value equations and inequalities, analyzing functions, including quadratic functions.

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:

- 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
_____ Workforce/CTE
X Basic Skills

Criteria B. Need

A course may only be granted Stand Alone Approval if there is demonstrable need 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.

This course is designed to support students who do not meet the multiple measures placement in MATH 48A. This course provides just-in-time remediation of prerequisite skills necessary for MATH 48A. Additionally, the course provides support in study skills and habits. This course is part of the math department's plan to comply with AB 705.

Criteria C. Curriculum Standards (please initial as appropriate)

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

Faculty Requestor: Zach Cembellin **Date:** 5/1/18

Division Curriculum Representative: Anand Venkataraman **Date:** 5/1/18

Date of Approval by Division Curriculum Committee: 5/1/18

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

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Physical Sciences, Mathematics & Engineering

MATH 248A JUST-IN-TIME SUPPORT FOR MATH 48A

Edit Course Outline

MATH 248A **JUST-IN-TIME SUPPORT FOR MATH 48A** **Fall 2018**

2.5 hours lecture. **2.5 Units**

Total Contact Hours: 30 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 90 *(Total of All Lecture, Lab and Out of Class hours X 12)*

Lecture Hours: 2.5 **Lab Hours:** 0 **Weekly Out of Class Hours:** 5

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

Repeatability -

Statement: Not Repeatable.

Status -

Course Status: Active **Grading:** Pass No Pass

Degree Status: Non-Applicable **Credit Status:** Credit

Degree or Certificate Requirement: Stand Alone Course

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: **Validation:** 5/8/18

Division Dean Information -

Seat Count: 35 **Load Factor:** .056 **FOAP Code:** 114000125051170100

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:

Need/Justification -

This course is designed to support students who do not meet the multiple measures placement in MATH 48A. The course provides just-in-time remediation of prerequisite skills necessary for MATH 48A. Additionally, the course provides support in study skills and habits.

1. Description -

A just-in-time approach to the core prerequisite skills, competencies, and concepts needed in Precalculus I. Intended for students majoring in science, technology, engineering, and mathematics who are concurrently enrolled in MATH 48A at Foothill College. Topics include: a review of computational skills developed in beginning and intermediate algebra, including factoring, graphing linear equations, solving absolute value equations and inequalities, analyzing functions, including quadratic functions.

Prerequisite: None

Corequisite: MATH 48A.

Advisory: Demonstrated proficiency in English by placement as determined by score on the English placement test OR through an equivalent placement process OR completion of ESLL 125 & ESLL 249.

2. Course Objectives -

The student will be able to:

A. Explore topics related to developing effective learning skills
B. Explore linear and quadratic relationships in 1 and 2 variables
C. Solve problems involving proportional reasoning
D. Simplify algebraic expressions, including those with exponents, radicals, and absolute values
E. Evaluate, graph, and find the domain and range of functions
F. Apply formulas of geometric objects

3. Special Facilities and/or Equipment -

Access to graphing technology, such as a graphing calculator or graphing software.

4. Course Content (Body of knowledge) -

A. Explore topics related to developing effective learning skills
    1. Learn study skills
        a. Organizational skills
        b. Time management
        c. Test preparation
        d. Test-taking skills
    2. Self-assess using performance criteria to judge and improve one's own work
        a. Analyze and correct errors on one's exam
    3. Identify, utilize, and evaluate the effectiveness of resources in improving one's own learning, such as study groups, computer resources, lab resources, and tutoring resources
B. Explore linear and quadratic relationships in 1 and 2 variables
    1. Solve linear equations with rational coefficients
    2. Solve literal equations and formulas for a specific value
    3. Solve linear inequalities and compound inequalities symbolically or graphically
    4. Represent linear functions using equations, tables, and graphs
    5. Interpret the meaning of intercepts and slopes from a problem's situation
    6. Describe magnitude and direction of slope
    7. Identify slopes and y-intercepts from equations
    8. Write an equation of a line using two points and using a point and slope
    9. Interpret the solution of a linear system in the context of a problem's situation
    10. Graph linear and quadratic equations
    11. Identify the vertex of a parabola
    12. Solve quadratic equations algebraically using factoring and the quadratic formula
C. Solve problems involving proportional reasoning
    1. Use rates to convert units
    2. Perform unit analysis
    3. Set up a proportion
D. Simplify algebraic expressions, including those with exponents, radicals, and absolute values
    1. Evaluate powers with positive, negative, and zero exponents
    2. Use properties of exponents
    3. Find square roots
    4. Simplify expressions that involve absolute values, rational exponents, and/or radicals
    5. Understand the meaning of an absolute value expression
E. Evaluate, graph, and find the domain and range of functions

1. Use function notation
2. Evaluate functions
3. Graphs of functions
    a. Linear
    b. Quadratic
    c. Absolute value
4. Domain and range
    a. From tables
    b. From graphs
    c. From the formula
5. Graph solution sets to inequalities on a number line and write the solution sets using interval and/or set-builder notation

F. Apply formulas of geometric objects
1. Perimeter
2. Area and surface area
3. Volumes
4. Solve geometric formulas for a specific value

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

A. Group and independent exploratory activities
B. Homework
C. Performance in MATH 48A

7. Representative Text(s) -

Stewart, Redlin, and Watson. Precalculus: Mathematics for Calculus. 7th ed. Cengage Learning, 2016.

8. Disciplines -

Mathematics

9. Method of Instruction -

A. Group work
B. Discussion
C. Mini-lectures
D. Instructor-guided discovery
E. Formative assessment

10. Lab Content -

Not applicable.

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

A. Problem sets
B. Exploratory activities and/or projects
C. Reading and/or writing assignments

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FOOTHILL COLLEGE
Stand-Alone Course Approval Request

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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 74

Course Title: Advanced Clinical Experience: Computed Tomography

Credit Status:

X Credit course
____ Noncredit course

Catalog Description:

A practicum in a computed tomography department. Practical experience is implemented to expose the post-graduate radiologic technology student to the principles of CT with emphasis on mastery of the knowledge, insight and skills required to perform CT procedures.

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:

- 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 demonstrable need 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.

This course is an opportunity for graduates of the Radiologic Technology Program to gain focused clinical experience in Computed Tomography necessary for the pursuit of an additional credential. Stanford approached the program to reactivate the course.

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: Rachelle Campbell **Date:** 5/2/17

Division Curriculum Representative: Sara Cooper **Date:** 5/18/18

Date of Approval by Division Curriculum Committee: 5/18/18

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

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Biological and Health Sciences

R T 74 ADVANCED CLINICAL EXPERIENCE: COMPUTED TOMOGRAPHY

Edit Course Outline

R T 74 **ADVANCED CLINICAL EXPERIENCE: COMPUTED TOMOGRAPHY** **Fall 2018**

40 hours clinical laboratory. **13 Units**

Total Contact Hours: 480 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 480 *(Total of All Lecture, Lab and Out of Class hours X 12)*

Lecture Hours: **Lab Hours:** 40 **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: Non-Applicable **Credit Status:** Credit

Degree or Certificate Requirement: Stand Alone Course

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: CSU **Validation:** 12/11/08; 12/14/10; 5/18

Division Dean Information -

Seat Count: 3 **Load Factor:** .556 **FOAP Code:** 114000141141122500

Instruction Office Information -

FSA Code: 2120 - HEALTH CARE SERVICES

Distance Learning: no

Stand Alone Designation: no

Program Title:

Program TOPs Code:

Program Unique Code:

Content Review Date:

Former ID:

Need/Justification -

This course is an opportunity for graduates of the Radiologic Technology Program to gain focused clinical experience in computed tomography necessary for the pursuit of an additional credential.

1. Description -

A practicum in a computed tomography department. Practical experience is implemented to expose the post-graduate radiologic technology student to the principles of CT with emphasis on mastery of the knowledge, insight and skills required to perform CT procedures.

Prerequisites: Current ARRT and CRT certification as a Radiologic Technologist; R T 62A and 62C.

Co-requisite: None

Advisory: None

2. Course Objectives -

The student will be able to:

A. demonstrate accuracy in radiation protection for the patient, personnel, and self.
B. exhibit knowledge and understanding in the proper use of the CT equipment.
C. adhere to standards of attendance, punctuality and dependability.
D. conduct self in a professional manner.
E. apply theory to practice by exhibiting ongoing, satisfactory job performance skills.
F. select proper scanning parameters and patient positioning as outlined by the department protocols.
G. demonstrate knowledge and application of various patient care techniques.
H. differentiate between normal and abnormal anatomy as it relates to CT imaging.
I. critique and evaluate CT images for good diagnostic quality.
J. prepare a case study presentation based on literature search and clinical experience.

3. Special Facilities and/or Equipment -

Clinical setting: Computed tomography equipment.

4. Course Content (Body of knowledge) -

A. Radiation Protection
    1. Shielding
    2. Protocols
    3. Pediatric imaging
B. Computed Tomography Equipment
    1. Principles of operation
    2. System components
C. Punctuality and Dependability
    1. Clinic time reporting
    2. Absenteeism
    3. Communicating whereabouts appropriately
D. Professional Conduct
    1. Taking initiative
    2. Communicating effectively
    3. Conducting oneself in a professional manner
E. Job Performance
    1. Scanning according to protocol
    2. Planning and organizing work efficiently
    3. Being alert and interested in examinations
    4. Reading and understanding requisitions
    5. Communicating effectively
    6. Completing exam in a reasonable amount of time
F. Scanning Procedures
    1. Patient positioning
    2. Protocol selection
    3. Parameter selection
    4. Documentation of procedure
    5. Radiation protection
G. Patient Care
    1. Requisition/medical record evaluation
    2. Room preparation
    3. Patient assessment
    4. Patient history/allergies
    5. Universal precautions

6. Patient discharge/post-procedure instructions

H. Sectional Anatomy
   1. Head and neck
   2. Thorax
   3. Abdomen
   4. Pelvis
   5. Spine extremities

I. Image Display/Quality
   1. Image display
   2. Archiving/PACS
   3. Artifact identification

J. Case Study Presentation
   1. Topic selection
   2. Presentation development
   3. Oral presentation

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

A. Presentation project: Case study.
B. Clinical performance evaluation.

7. Representative Text(s) -

Seeram, Euclid. Computed Tomography: Physical Principles, Clinical Applications & QC. 4th ed. W.B. Saunders, 2015. ISBN 9780323312882

8. Disciplines -

Radiological Technology

9. Method of Instruction -

Discussion, demonstration, clinical practice.

10. Lab Content -

A. Radiologic Technology (computed tomography) clinical practice.
   1. Radiation protection.
   2. Equipment operation.
   3. Physics and instrumentation.
   4. Imaging procedures.
   5. Patient care in a clinical setting.

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

A. Reading assignments as required by the Computed Tomography Department.
B. Development of a case study presentation.

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FOOTHILL COLLEGE
Stand-Alone Course Approval Request

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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 201

Course Title: Digital Radiography for Radiologic Technologists

Credit Status:

X Credit course
____ Noncredit course

Catalog Description:

Exploration of how digital radiography allows for the reduction of patient dose. Various manufacturers' equipment and exposure indicators will be reviewed to align technical factor manipulation focusing on dose reduction, image quality factors and patient safety. Restricted to licensed California Radiologic Technologists to meet continuing education requirements set forth by the Department of Public Health's Radiologic Health Branch.

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:

- 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 demonstrable need 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.

This course was presented at the Radiologic Technology Advisory Board meeting in February 2018. The advisory members fully supported both this course as this topic is required to maintain licensure in the state of California. See the attached document, Continuing Education Requirements for Certificate/Permit Renewal, regarding the requirement for Digital Radiography by the California Department of Public Health's Radiologic Health Branch.

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: Rachelle Campbell **Date:** 5/2/17

Division Curriculum Representative: Sara Cooper **Date:** 5/18/18

Date of Approval by Division Curriculum Committee: 5/18/18

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

Biological and Health Sciences

R T 201 DIGITAL RADIOGRAPHY FOR RADIOLOGIC TECHNOLOGISTS

Edit Course Outline

R T 201 DIGITAL RADIOGRAPHY FOR RADIOLOGIC TECHNOLOGISTS **Fall 2018**

6 hours lecture total per quarter. **.5 Units**

Total Contact Hours: 6 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 18 *(Total of All Lecture, Lab and Out of Class hours X 12)*

Lecture Hours: .5 **Lab Hours:** 0 **Weekly Out of Class Hours:** 1

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

Repeatability -

Statement: Unlimited Repeatability.

Criteria: Per FHDA policy: Students are allowed to repeat a course without petition when repetition is necessary to enable that student to meet a legally mandated training requirement as a condition of volunteer or paid employment. Students can repeat such courses any number of times, even if they received a grade of C or better; however, the grade received by the student each time will be included in calculations of the student's grade point average.

Status -

Course Status: Active **Grading:** Letter Grade with P/NP option

Degree Status: Non-Applicable **Credit Status:** Credit

Degree or Certificate Requirement: Stand Alone Course

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: CSU **Validation:** 5/9/18

Division Dean Information -

Seat Count: 35 **Load Factor:** .011 **FOAP Code:** 114000141111122100

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:

Need/Justification -

This course is required for Certified Radiologic Technologists (CRT) to maintain licensure in the state of California.

1. Description -

Exploration of how digital radiography allows for the reduction of patient dose. Various manufacturers' equipment and exposure indicators will be reviewed to align technical factor manipulation focusing on dose reduction, image quality factors and patient safety. Restricted to licensed California Radiologic Technologists to meet continuing education requirements set forth by the Department of Public Health's Radiologic Health Branch.

Prerequisite: Current certification in Radiologic Technology.

Co-requisite: None

Advisory: None

2. Course Objectives -

The student will be able to:

A. Compare and contrast the computed radiography digital system with the direct radiography digital system.
B. Examine the potential impact the properties of digital radiographic systems have on patient exposure and methods of practicing the As Low As Reasonably Achievable (ALARA) concept with digital systems.
C. Evaluate manipulation of technical factors and the effect on exposure indicators of various systems.

3. Special Facilities and/or Equipment -

Multimedia classroom, visualizer, internet access.

4. Course Content (Body of knowledge) -

A. CR vs. DR systems
    1. Detector types
        a. Direct conversion and thin film transistor (TFT) arrays
            1. Amorphous selenium
        b. Indirect conversion and thin film transistor (TFT) arrays
            1. Amorphous silicon
            2. Scintillator
        c. Charge-coupled device (CCD)
        d. Photostimulable phosphor (PSP) plate
            1. Turbid phosphors
            2. Columnar phosphors
B. Detector properties
    1. Evaluation of detector characteristics
        a. Detective quantum efficiency (DQE)
        b. Modulation transfer function (MTF)
        c. Spatial resolution
    2. Dynamic range
    3. Raw data extraction
        a. Data extraction
            1. TFT
            2. PSP
            3. CCD
        b. Analog to digital conversion
        c. Exposure field recognition
        d. Region of interest (ROI)

e. Histogram analysis
f. Exposure index

C. Exposure indicators and deviation index
a. Deviation index (DI)
b. Target Index (TI)
c. Exposure indicator issues
1. Centering and beam collimation
2. Optimal value ranges
3. Effect of utilizing the 15% rule
4. Mathematical relationship between altering technique or SID on exposure index
5. Difficulties working in environments with multiple exposure indicator types

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

Methods of evaluation may include, but are not limited to:

A. Quizzes
B. Participation in class discussion

7. Representative Text(s) -

Instructor prepared materials.

8. Disciplines -

Radiological Technology

9. Method of Instruction -

Methods of instruction may include, but are not limited to: lecture, discussion, cooperative learning exercises, and demonstration.

10. Lab Content -

Not applicable.

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

Completion of a behavior survey related to technical factor alteration and attention to exposure indexes as a methodology for evaluating image quality in the digital radiography environment.

Continuing Education Requirements for Certificate/Permit Renewal

(Updated February 2017)

Table of Contents

1. General Information

The continuing education (CE) credits and continuing experience required to renew permits and certificates in radiologic technology are specified in title 17, California Code of Regulation (17 CCR), section 30403. The Radiologic Health Branch does not have a program to provide continuing education credits and does not credential providers of continuing education.

An “approved continuing education credit” means 50 - 60 minutes of instruction received in subjects related to the application of X-ray to the human body and accepted for purposes of credentialing, assigning professional status or certification by the following organizations:

- American Registry of Radiologic Technologists (ARRT)
- Medical Board of California
- Osteopathic Medical Board of California
- California Board of Chiropractic Examiners
- Board of Podiatric Medicine
- Dental Board of California

Please note: “Subjects related to the application of X-ray to the human body” may include X-ray administration, X-ray management, X-ray pathology, X-ray diagnosis and X-ray quality control. However, subjects in MRI, Ultrasound, CPR, or other topics not related to the application of X-rays to the human body cannot be accepted. It is the responsibility of the certificate or permit holder to ascertain the acceptability of courses.

The renewal form mailed to you will include space for documenting the approved CE credits you have earned. You may use the reverse side of the renewal form, if needed. Each individual is required to maintain documents that evidence the completion of approved continuing education credits for four (4) years following the dates the credits were earned. These documents must be made available to the Department upon request. [17 CCR 30403.8]

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2. Licentiates of the Healing Arts – CE Requirements

Licentiates of the healing arts are those physicians and surgeons, osteopathic physicians and surgeons, podiatrists and chiropractors who possess a Radiology supervisor and operator certificate, or a Fluoroscopy, Radiography or Dermatology supervisor and operator permit.

All licentiates need to earn 10 approved CE credits in the two years immediately preceding the expiration date of their certificate/permit.

If an individual holds a fluoroscopy supervisor and operator permit, four (4) of the 10 credits must be in radiation safety for the clinical uses of fluoroscopy. [17 CCR 30403(b)]

An Approved Continuing Education Credit means 50 to 60 minutes of instruction received in subjects related to the application of X-ray to the human body and accepted for purposes of credentialing, assigning professional status or certification by:

- ARRT
- Medical Board of California
- Osteopathic Medical Board of California
- California Board of Chiropractic Examiners
- Board of Podiatric Medicine
- Dental Board of California

EXAMPLE: The Medical Board of California requires that physicians complete 50 hours of approved continuing education during each two-year period, and refers to these hours as Continuing Medical Education (CME) credits. One CE credit is equivalent to one CME credit as defined by the Medical Board of California when X-ray application to the human body is the subject matter of the education.

Licentiates who are in residency or fellowship programs and courses, and seminars and meetings that contain subject matter related to X-ray may qualify for CE credits if they are granted CME status by the Medical Board of California. CME credits are determined to qualify for CE credit on an hour per hour basis of instruction related to X-ray. For example, a 3 day seminar that is granted 24 CME credits by the medical board would need to have discussions or training pertaining to X-ray amounting to at least 10 hours over the 3 day duration of the seminar. The required 10 hours of CE credits can be accrued over all education activities completed in the 2 year period.

It is the responsibility of the certificate or permit holder to ascertain the acceptability of the continuing education activity as a CE credit for the Department's purposes. When completing the renewal form, please list all CME credit quantities in the "Hours/credits" column on the renewal application. If an audit is performed, you will be required to provide the documentation showing that at least 10 of the CME credits listed are related to X-ray.

Additionally, courses and training offered by other recognized organizations can qualify as CE credits if they meet the requirements listed under general requirements above.

For further information on CME credits, please visit www.mbc.ca.gov, and the Osteopathic Medical Board of California at www.ombc.ca.gov. The Board of Podiatric Medicine's continuing competency requirements can be viewed at www.bpm.ca.gov. The Dental Board of California's policy on CE credits can be viewed at www.dbc.ca.gov. The California Board of Chiropractic Examiners has additional requirements related to the training for the use of X-ray and can be viewed at www.chiro.ca.gov.

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3. Physician Assistants Fluoroscopy Permit – CE Requirements

Physician Assistants (PA) issued a PA fluoroscopy permit pursuant to 17 CCR section 30456.2 are required to submit every two (2) years immediately preceding the expiration date of the permit, no less than ten (10) approved continuing education credits, with at least four (4) of the credits addressing radiation safety for the clinical uses of fluoroscopy. [17 CCR 30456.6(a)]

"Approved continuing education credits" means one hour increments of instruction received in subjects related to the application of X-ray to the human body, which have been accepted for purposes of licensing, credentialing, assigning professional status, or certification, by any of the following entities:

- American Registry of Radiologic Technologists (ARRT);
- California Physician Assistant Committee;
- Medical Board of California;
- Osteopathic Medical Board of California;
- California Board of Chiropractic Examiners; or
- Board of Podiatric Medicine.

The CE credit information to be submitted to the Department must include:

- The identity of the group(s) listed above that has accepted the instruction;
- The provider of the instruction and the provider's contact information;
- A description of the instruction; and
- The date(s) of the instruction.

The PA fluoroscopy permit holder must maintain documents that evidence the completion of approved continuing education credits for four years following the dates the credits were earned. These documents must be made available to the Department upon request.

PA's who hold a Radiologic Technologist Fluoroscopy (RTF) permit need to refer to section: **6. Radiologic Technology Fluoroscopy (RTF) Permit ADDITIONAL Requirements** as the above requirements do not apply for the renewal of your RTF permit.

4. Certified Radiologic Technologists (CRT) - CE Requirements

This section discusses CE requirements for diagnostic and therapeutic, CRTs. Mammographic CRTs have ADDITIONAL requirements which are discussed separately below.

CRTs need to earn twenty-four (24) approved CE credits, four (4) of which shall be in digital radiography, in the two years immediately preceding the expiration date of their permit.

The Department will accept the following advanced credential certificates issued by ARRT for 24 CE credits if the certificate was issued within the two years immediately preceding the expiration date of the certificate or permit:

- Mammography**
- Computerized Tomography
- Quality Management
- Bone Densitometry
- Vascular-interventional Radiography
- Cardiac-interventional Radiography
- Radiologist Assistant
- Radiation Therapy

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Note: Issuance of a certificate through the State of California where a state examination was taken does not qualify for CE credits. However, training courses taken in preparation for these exams may be approved by one of the credentialing organizations listed above and therefore would qualify.

Activities meeting the definition of an 'approved academic course' as defined by the ARRT may be awarded CE credit at the rate of 12 CE credits for each academic quarter credit or 16 CE credits for each academic semester credit. The 'approved academic course' must also pertain to the application of X-ray to the human body to qualify as a CE credit for California. For more information on acceptable classes, please visit the ARRT website at www.arrt.org.

The ASRT is a recognized credentialing body for continuing education activities and those activities pertaining to the application of X-ray of the human body will be acceptable to the Department.

5. Mammographic Certified Radiologic Technologists (CRT) – ADDITIONAL Requirements

Each person who has been issued a Mammographic CRT certificate must, in the two years immediately preceding the expiration date of the certificate, must earn 10 of the 24 Approved CE credits in mammography. [17 CCR 30403(a)(1)]

**The advanced credential certificate for mammography will meet the 10 CE credits specific to mammography requirement. The other advanced credentials will not meet this requirement, so additional CE credits will need to be earned specific to mammography.

6. Radiologic Technology Fluoroscopy (RTF) Permit ADDITIONAL Requirements

- CRTs with a RTF permit are required to earn 24 approved continuing education credits; four of which are required to be in radiation safety for the clinical uses of fluoroscopy. [17 CCR 30403(a)(2)].
- PA with a RTF permit: For purposes of renewing your RTF permit, you will need to earn 24 approved continuing education credits; four of which are required to be in radiation safety for the clinical uses of fluoroscopy.

7. Limited Permit X-Ray Technicians (XT) – CE Requirements

Limited Permit X-Ray Technicians (XTs) must earn twenty-four (24) approved CE credits, in the two years immediately preceding the expiration date of their permit.

Limited Permit X-Ray Technicians (XTs) with digital authorization must earn four (4) of the twenty-four (24) CE credits in digital radiography. [17 CCR 30403(a)]

The Department will grant twenty-four (24) CE credits to XTs who have enrolled in an approved Radiologic Technology program and who have documented the completion of a minimum of six months coursework.

Documentation must include a letter from an authorized representative of the approved Radiologic Technology program. Additional documentation may also be required, such as official school transcripts. Be sure to include this information on your renewal application.

Completion of instruction in digital radiologic technology (to obtain digital authorization) in accordance with [17 CCR 30410(c)] is considered to be approved for 20 CE credits for purposes of renewing your permit. It is your responsibility to include these credits on your renewal application.

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8. Certified Technologist, Nuclear Medicine – CE Requirements

The CE requirements and continuing experience required to renew certificates in nuclear medicine are specified in 17 CCR 30536. Nuclear Medicine Certificates expire five years from the date of issuance.

17 CCR 30536(c)(1), states, "Documentation submitted with the application establishes that the applicant has participated in management-sponsored or formal continuing education or training offered by one or more of the following:

(A) Professional organizations or societies.
(B) Institutions of higher learning.
(2) The applicant's education and training includes at least five (5) clock hours since the last certificate renewal or initial application in each of the scopes specified in 17 CCR 30533 for which the certificate was issued.

The Society of Nuclear Medicine (SNM) is a recognized credentialing body for continuing education activities pertaining to nuclear medicine.
Nuclear medicine categories pursuant to 17 CCR 30533(a) states, "Certificates shall be issued for one or more of the following:

(1) Diagnostic in vivo and in vitro tests involving measurement of uptake, dilution, or excretion, including venipuncture, but not involving imaging.
(2) Diagnostic nuclear medicine technology procedures involving imaging, including venipuncture.
(3) Use of generators and reagent kits for preparation of radioactive material.
(4) Internal radioactive material therapy."

CE credits from the Radiopharmacy scope may be applied to either: Non-Imaging (in-vivo/in-vitro) or Generators and Kits, depending upon the topic.

9. Frequently Asked Questions

1. What courses can be accepted for continuing education credit in California?

In order for us to be able to accept a course as credit for continuing education, it needs to be in a subject that is related to the application of X-rays to the human body and it must be approved by the American Registry of Radiologic Technologists, American Society of Radiologic Technologists, Medical Board of California, Osteopathic Medical Board of California, California Board of Chiropractic Examiners, Board of Podiatric Medicine; the Dental Board of California, or Society of Nuclear Medicine (FOR NUCLEAR MEDICINE TECHNOLOGIST ONLY)

2. How many credits do I need to renew my certificate/permit?

- XTs with digital authorization and CRTs need to earn a minimum of twenty-four (24) Approved Continuing Education (CE) credits, four (4) of which are in digital radiography in the 2 years prior to the expiration of their certificate/permit.
- CRTs with a mammography certificate need 24 Approved CE credits, with 10 CE credits that are specific to mammography.
- CRTs with a fluoroscopy permit need 24 Approved CE credits, with 4 CE credits that shall be in radiation safety for the clinical uses of fluoroscopy.
- Certified Supervisors and Operators (California Licensed Physicians and Surgeons, Podiatrists, or Chiropractors) need to earn 10 Approved CE Credits in the 2 years prior to the expiration of their certificate/permit. If a Licentiate holds a fluoroscopy supervisor and operator permit, four of the ten (10) CE credits shall be in radiation safety for the clinical uses of fluoroscopy.

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3. Why were changes made to the CE credit requirement?

The changes and amendment were brought about as the result of recommendations of the Radiologic Technology Certification Committee and fulfills the Department's mandate from the Legislature as stated in H&S Code 114870(b)(2) and (c)(3).

4. How many CE credits do I need if I hold a CRT with a mammography certificate and a fluoroscopy permit?

You are required to submit twenty-four (24) CE credits, with ten (10) hours specific to mammography, four (4) in radiation safety for the clinical uses of fluoroscopy, and four (4) CE credits in digital radiography. If any of the mammography or fluoroscopy CE credits that you have obtained are related to digital radiography, they may be used to satisfy the four (4) digital radiography CE requirements.

5. Do I have to obtain a digital license?

RHB does not issue digital licenses. The proper terminology is "Digital Authorization" and it applies only to XTs. A CRT is not required to obtain a digital authorization.

6. What if I am an XT, but I do not have digital authorization?

XT's who do not have digital authorization are not required to obtain CE credits in digital radiography.

7. With the new digital radiography CE credit requirement, do I have to take additional classes for continuing education?

No. The new CE credit requirement allows the CRT and XT with Digital Authorization to allocate four (4) of the twenty-four (24) CE credits to digital radiography.

8. I am a CRT, but I do not perform computerized tomography (CT). Do I still have to obtain four (4) digital radiography CE credits?

Yes. Under the regulations, all CRT's are required to obtain four (4) CE credits in digital radiography.

9. How can I find out where continuing education courses are being held?

Perform an Internet search using California Radiology Continuing Education or California X-ray Continuing Education. Do not forget to verify that the certificate and course is being given by an approved body as listed in Question #1 and is in a subject that is related to the application of X-rays to the human body.

10. What happens if I have not earned my required credits when my certificate or permit renewal is due?

We cannot process your renewal until you have earned the required credits and sent in your renewal application with the required information and fee. It is a violation of the regulations to continue to work with an expired certificate or permit.

11. Can courses in MRI, Ultra Sound, and CPR be accepted for approved continuing education credits?

No. Credits can be accepted only for approved courses in subjects that are related to the application of X-rays to the human body. These courses can include subjects in radiology administration or management and radiologic pathology, diagnosis, or quality control.

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12. Can the granting of the required 24 CE credits be in subject matter related to the applicant's work area (i.e. US, MRI, NMT, etc.)?

No. The acceptable subject matter is limited to those subjects related to the application of X-rays to humans because the Department-issued certificates and permits authorize those individuals to expose humans to radiation for diagnostic, therapeutic, and mammographic purposes. Ultrasound, magnetic resonance imaging, and nuclear medicine technology (NMT) are not related to the application of X-ray to humans as addressed under the RT Act.

Though NMT involves the use of ionizing radiation, it is specific to the use of radioactive material but not X-ray equipment.

13. Would the performance of fluoroscopy procedures be accepted for CE credits?

No. The performance of fluoroscopy procedures does not meet the criteria in the definition of approved continuing education and would not be accepted for CE credits.

14. Are all continuing education courses approved by ARRT accepted in California as approved continuing education credits?

No. We can only accept approved courses that are in subjects related to the application of X-ray to the human body.

15. How do I report continuing education credits that I have earned?

Complete the renewal application sent with your renewal notice. You will need to retain your original course certificates for (4) four years so that you can provide a copy for audit purposes if needed.

16. Does the renewal application for my certificate/permit require me to submit my actual CE certificates or will a tracking list suffice?

The renewal document needs to provide specific information, one of which is a description of the instruction. The description needs to be specific enough to determine whether the instruction meets the definition of an approved continuing education credit as defined in section 30400(a)(4). The actual certificates, as indicated in section 30403.8, would need to be submitted only if requested.

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FOOTHILL COLLEGE
RADIOLOGIC TECHNOLOGY ADVISORY BOARD COMMITTEE
MEETING MINUTES
February 27, 2018

Dr. Volney Van Dalsem	Medical Director, Radiologic Technology Program & Diagnostic Medical Sonography Program & Outpatient Imaging Services, Stanford Health Care
Nanette Solvanson	Dean of Biological & Health Sciences, Foothill College
Rachelle Campbell	Program Director, Radiologic Technology Program
Jenene Key	Faculty / Clinical Coordinator, Radiologic Technology Program
Bonny Wheeler	Faculty / RSO, Radiologic Technology Program
Melissia Wu	Faculty / Radiologic Technology Program
Kathleen Austin	Acting Program Director, Diagnostic Medical Sonography Program
Judy Wood	Director, Imaging Services, Stanford Health Care
Darlene DeBrito	Director, Imaging Services, Hazel Hawkins Memorial Hospital
Raymond Fellers	Manager, Imaging Services, Palo Alto Med. Foundation, SC
Judi Contento	Clinical Instructor, Radiology, Stanford Health Care
Steven Walters	Director, Radiology, Regional Medical Center
Dianne Tiernan	Director, Radiology, Santa Clara Valley Medical Center
Angela Hurlburt	Manager, Imaging Services, Palo Alto Med. Foundation, PA
Chester Lim	Clinical Instructor, Supervisor, UCSF Medical Center
Justin Reinschmidt	1st Year Student Representative, Foothill College, RT Program
Rasha Shehadeh	2nd Year Student Representative, Foothill College, RT Program
Hillary Bliss	2nd Year Student Representative, Foothill College, DMS Program
Cynthia Harrison	Deputy Sector Navigator/Director, Health Workforce Initiative, Bay Area Region Director Regional Testing Center for Nursing Assistant Testing

(Lunch served 11:00-11:30)

Rachelle Campbell, RT Program Director called the meeting to order at 11:05 am.

Welcome/Introductions
Rachelle welcomed and thanked everyone for attending the meeting.

Program Announcements
Bonny Wheeler announced that she would be retiring at the end of Spring quarter (June 2018).

RT Program Mission Statement
Rachelle outlined the program's mission, goals and campus/program leadership to the attendees. She reviewed the current mission statement and outlined a proposed statement for consideration. She then asked if there were any questions and/or suggestions for revision.

- **Current Mission Statement:** The Foothill College Radiologic Technology Program prepares students to function competently and effectively as radiologic technologists and provides a foundation for professionalism within healthcare communities.

- **Proposed Mission Statement:** The Foothill College Radiologic Technology Program prepares students to function competently and effectively as radiologic technologists and provides a foundation for professionalism within healthcare communities with emphasis on patient centered care and radiation protection.

The group voted unanimously to adopt the new mission statement as presented.

Program Effectiveness Data

Rachelle reviewed the assessment tools and benchmarks being used for the RT program. The assessment tools are used throughout the year and include the following:

Program Assessment Tools

- **Employer Survey** - collection timeframe is 12 months post graduation to match accreditation requirements.
- **Graduate Survey** - collection timeframe is 12 months post graduation to match accreditation requirements.
- **Clinical Rotation Assessment** - filled out by current students at the end of each rotation.
- **Clinical Instructor Assessment** - filled out by current students at the end of each rotation.
- **Laboratory Assessment** - filled out quarterly by 1st year students.
- **Lecture Course Assessment -** administered by the instructor yearly.

2017 Graduate Surveys Results

The online surveys were sent out and 14 graduates responded to the survey. All 14-program alumni currently hold jobs as radiologic technologists. The majority are employed full time (71%), followed by per diem (21%) and part-time (7%). The majority of the alumni (84%) earn an average gross yearly salary of $80,000.01 or more. When asked for **suggestion to improve the program**, alumni cited more technique training and more time for rotations. "C-arm practice and OR workflow of x-ray tech, which the program is already incorporating."

2017 Employer Survey Results

The online surveys were sent out and 6 employer responses were received. All reflected a good and/or excellent rating to the survey questions. A suggestions for program improvement was to increase the graduates OR/C-arm preparation. "Students need more time in the OR so they can become more comfortable. Should have the weeks in the OR consecutively for consistency."

2017 Graduate Employment

FHC benchmark reads that 90% of graduates will be employed after 12-months. Based on an email survey performed by the faculty, 95% of the 2017 graduates are currently employed six-months post-graduation. One graduate is currently not seeking employment due to moving out of the area.

2017 ARRT Results

The Program has an ARRT Exam Pass Rate Benchmark of 90%. The national pass rate average for 2017 was 84%. The FHC Program had a 100% pass rate. 20 out of 20 students successfully passed the ARRT board exam on the first attempt. The RT Program's 5-year ARRT pass rate average is 99% on the first attempt.

Retention Rate
The Program's Retention Benchmark is 75% of students will complete the program. The class of 2017 had a retention rate of 91%. The program utilizes an imbedded tutor, a student from the second-year class, to allow students to seek academic assistance during evenings and weekends. The program also offers supplemental lab hours where students can work with RT faculty on areas such as positioning, technical factors, image analysis and anatomy identification. The RT Program's 5-year retention rate average is 90%.

Class of 2017	Class of 2018	Class of 2019
Applications – 343 Accepted – 22 Graduated– 20 Reasons for Attrition: ○ Clinical – 1 ○ Personal – 1 ○ Medical – 0	Applications – 265 Accepted – 22 Currently – 18 Reasons for Attrition: ○ Clinical – 3 ○ Personal – 1 ○ Medical - 0	Applications – 221 Accepted – 23 Currently – 23 Reasons for Attrition: ○ Clinical – 0 ○ Personal – 0 ○ Medical - 0

Student Success / Awards
ACERT Conference 2018: On Jan. 30-Feb 2, the faculty, clinical instructors and students went to Las Vegas for the Association of Collegiate Educators in Radiologic Technology Annual Conference.

- Several groups of second year students participated in the Scientific Display Competition this year. Foothill students had a great showing at the event and placed 1st and 2nd place in the Original Research Scientific Display. Congratulations goes to the following students:
    - Austin Nguyen, Sean Kench and Jaspreet Gill who placed 1st for their research display titled; "How Well Does Wiping Work". Their research focused on infection control of department cleaning.
    - Berremy Mulingtapang, Narciso Lara and Kim Phan-Pennington placed 2nd for their research display titled; "The Almighty Marker?" Their research focused on infection control of technologist markers.
- Samaria Zarate, first year RT student was awarded the Patient Safety Good Catch Award at El Camino Hospital.

Hi-Touch Healthcare: The Critical Six Soft Skills
Cynthia Harrison, Deputy Sector Navigator/Director, Health Workforce Initiative was invited to discuss a training program titled, Hi-Touch Healthcare: The Critical Six Soft Skills. The training program provides the healthcare industry with the background and tools needed to educate healthcare employees at all levels about improving soft skills. Free training modules are available at the web address below:
https://ca-hwi.org/about-hwi/quick.../hi-touch-healthcare-the-critical-six-soft-skills
Additionally, affiliates were invited to request a trainer to come to their facility to work with staff members regarding any of the topics in the Hi-Touch Healthcare: The Critical Six Soft Skills program. Examples include communication, listening and teamwork. Anyone interested in requesting a trainer can contact Rachelle for more information.

Program Improvements Projects

Trajecsys Rollout - Rachelle informed the group that the program began using an online clinical management and tracking system for student record keeping in Fall 2017. The cloud-based management

system is being used for time records, competencies, exam logs, evaluations and other forms. The program is currently sponsoring the initial rollout, so that it is free for the students. The cost is $150 per student for 2 years. Both students and clinical instructors stated that the system has been very helpful and easy to use. The system is also being utilized as an educational tool related to repeat exam calculations as well as student reflections for areas of improvement.

Prerequisite/Interprofessional Education Expansion - Rachelle stated that Starting in 2019, the RT program is going to require the course, Communication 2, Interpersonal Communication (5 units) as a prerequisite to the program. The faculty evaluated multiple Communication Courses after reviewing student data. The data indicated that a lack of self-confidence and communication were two barriers to student success during the program. The Communication course selected deals with both of these issues. The goal is for students to enter the program with a firm foundation of knowledge that the program can then build on.

Rachelle stated that interprofessional education has been woven through the first half of the program. During the AHS course series, students from all of the allied health programs are brought together to participate in activities focused on communication, teamwork and patient safety. Further work will be done over the next year to incorporate opportunities for this education in the second half of the program.

Online Program Application – Rachelle informed the group that all Foothill allied health program applications are now 100% online. The new process was rolled-out this year. The goal is to streamline the application process.

Program Feedback

OR / C-arm Curriculum - Rachelle gave a big thank you to Stanford Heath Care for donating a C-arm to the RT program. The equipment is currently being housed in Room 5210. Rachelle stated that the program is in need of a simulation room to house RT equipment for activities and education sessions. She outlined the program's efforts to increase student performance:

- Videos were incorporated into the first-year student didactic education to introduce them to the OR environment. This includes examples of surgery as well as simulation videos created by the second-year students.
- Increased the student's hands-on activities during the first-year lab as well as a simulation lab during summer quarter.
- Increased the clinic OR rotation to a minimum of two-weeks per quarter. The two weeks are scheduled back to back.
- Incorporated c-arm/OR terminal competency requirements during the final quarter of the program when applicable to provide additional assessment opportunities for graduating students.
- Request for a dedicated room at Foothill to simulate the OR environment.

- Suggestions for improvement from the group included:
  - Each CI or designee perform an OR orientation prior to the beginning of the student's rotation.
  - Ask MD's to speak to the students to facilitate better communication. An orthopedic surgeon comes to the second AHS Interprofessional Education session to speak, but it would be very impactful to have a surgeon from one of our affiliates speak to the second-year students as well.

Continued efforts will be focused on this topic to increase student skill in the OR environment.

RHB

Rachelle outlined the current RHB timeline for processing the CRT / Fluoroscopy applications. She stated that RHB has a 45-day back-log and asked the group for their current fluoroscopy requirements for hiring new graduates. She also informed the group that RHB will be transitioning to an online application in the upcoming years.

Continuing Education Short Courses
Rachelle asked if the affiliates would be interested in the RT program developing two short courses that cover the topics of digital and radiation protection in fluoroscopy. These courses would be offered to technologist during the evening and/or on Saturdays. The response was that they would be very interested and would even be willing to host the events at their sites.

Health Care Market Trends / Affiliate News / Hiring Updates

- UCSF – Moving to employing registry technologist.
- PAMF-SC – No job openings at this time.
- PAMF-PA – US position, Mammography position, per diem may be available soon.
- RMC - RT / CT / US positions.
- HH – RT II / CT position.
- VMC - 3 RT positions, US per diem.
- SHC – MR position. The new hospital will be opening in 2019. Several positions will be available before the opening.

Other

- **Affiliate Informational Session:** The upcoming Spring Quarter Informational Session for second year students is scheduled for Wednesday, May 23, 2018 at the Foothill College campus. Two representatives from each affiliate are invited to give a short talk on what their facility has to offer to potential employees. Invitations and parking passes will be sent via email.

Diagnostic Medical Sonography Program

- Kathleen Austin, DMS Acting Program Director, gave a presentation regarding the DMS program statistics for 2017. (Please see attached sheet for details).

Meeting Adjourned at 1:00 pm. **Minutes submitted by Jenene Key / Rachelle Campbell**

Handouts:
Agenda
Diagnostic Medical Sonography Report

Ensure you're using the current version of this form by downloading a fresh copy from the CCC webpage!

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 202

Course Title: Radiation Safety in Fluoroscopy for Radiologic Technologists

Credit Status:

X Credit course
_____ Noncredit course

Catalog Description:

Exploration of radiation safety measures in the field of fluoroscopy for both fixed and mobile units. Emphasis will be placed on time, distance, shielding, radiobiology, isometric curves, inverse square law, as well as reduction of radiation exposure to both patients and personnel. Restricted to licensed California Radiologic Technologists to meet continuing education requirements set forth by the Department of Public Health's Radiologic Health Branch.

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:

- 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 demonstrable need 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.

This course was presented at the Radiologic Technology Advisory Board meeting in February 2018. The advisory members fully supported both this course as this topic is required to maintain licensure in the state of California. See the attached document, Continuing Education Requirements for Certificate/Permit Renewal, regarding the requirement for Fluoroscopy Safety by the California Department of Public Health's Radiologic Health Branch.

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: Rachelle Campbell **Date:** 5/2/17

Division Curriculum Representative: Sara Cooper **Date:** 5/18/18

Date of Approval by Division Curriculum Committee: 5/18/18

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

Biological and Health Sciences

R T 202 RADIATION SAFETY IN FLUOROSCOPY FOR RADIOLOGIC TECHNOLOGISTS

Edit Course Outline

R T 202 **RADIATION SAFETY IN FLUOROSCOPY FOR RADIOLOGIC TECHNOLOGISTS** **Fall 2018**

6 hours lecture total per quarter. **.5 Units**

Total Contact Hours: 6 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 18 *(Total of All Lecture, Lab and Out of Class hours X 12)*

Lecture Hours: .5 **Lab Hours:** 0 **Weekly Out of Class Hours:** 1

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

Repeatability -

Statement: Unlimited Repeatability.

Criteria: Per FHDA policy: Students are allowed to repeat a course without petition when repetition is necessary to enable that student to meet a legally mandated training requirement as a condition of volunteer or paid employment. Students can repeat such courses any number of times, even if they received a grade of C or better; however, the grade received by the student each time will be included in calculations of the student's grade point average.

Status -

Course Status: Active **Grading:** Letter Grade with P/NP option

Degree Status: Non-Applicable **Credit Status:** Credit

Degree or Certificate Requirement: Stand Alone Course

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: **Validation:** 5/8/18

Division Dean Information -

Seat Count: 35 **Load Factor:** .011 **FOAP Code:** 114000141141122500

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:

Need/Justification -

This course is required for Certified Radiologic Technologists (CRT) to maintain licensure in the state of California.

1. Description -

Exploration of radiation safety measures in the field of fluoroscopy for both fixed and mobile units. Emphasis will be placed on time, distance, shielding, radiobiology, isometric curves, inverse square law, as well as reduction of radiation exposure to both patients and personnel. Restricted to licensed California Radiologic Technologists to meet continuing education requirements set forth by the Department of Public Health's Radiologic Health Branch.

Prerequisite: Current certification in Radiologic Technology.

Co-requisite: None

Advisory: None

2. Course Objectives -

The student will be able to:

A. Identify radiation safety measures for the pediatric patient.
B. Describe how fluoroscopic equipment functions and can be utilized safely.
C. Define and discuss the regulations and guidelines associated with mobile image intensified units.
D. Describe the regulatory provisions and radiation safety measures of fluoroscopic equipment and the adult patient.

3. Special Facilities and/or Equipment -

Multimedia classroom, visualizer, internet access.

4. Course Content (Body of knowledge) -

A. Radiation Safety Measures for the Pediatric Patient
    1. Law of Bergonie and Tribondeau
        a. Immature cells
        b. Young tissues and organs
        c. High metabolic rate
        d. Rapidly dividing cells
    2. Critical factors to consider when imaging pediatric patients in the fluoro mode
        a. Motion
        b. Artifacts
        c. AEC vs. manual technical factors
        d. Pulse progressive fluoroscopy and frame rate
        e. Last image hold and image grab
        f. Repercussions of using grids or mag mode
        g. Reduce number of images
    3. National campaigns aimed at public awareness as well as imaging professionals
        a. Image Gently protocols for the radiologic technologist
        b. Step Lightly
        c. ASRT
B. Fluoroscopy Equipment, to Include the Following:
    1. Construction of different types of units
    2. Operating technical factors
    3. Timing
    4. Filtration

5. X-ray beam restriction
6. Safety factors
7. Inverse square law
8. Exposure control

C. Mobile Image Intensified Unit (C-Arm)
1. Special requirements
2. Source-to-skin distance
3. X-ray beam intensity
4. Isoexposure curves for various examinations

D. Regulatory Provisions and Radiation Safety
1. Primary protective barrier
2. Secondary protective barriers
3. Occupancy factor (T)
4. Work load factor (W)
5. Use factor (U)
6. Mobile screens
7. Bucky slot cover
8. Protective curtains or drape
9. Collimation
10. Cumulative timer
11. Autobrightness control
12. Technical factors
13. Excessive light
14. X-ray intensity
15. X-ray quality
16. Protective clothing
17. Isoexposure curves (different examinations - upright and horizontal table)
18. Radiation dose for patient for various examinations
19. Radiation exposure to operator and others
20. Minimum source-to-table top distance beam restriction system

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

Methods of evaluation may include, but are not limited to:

A. Quizzes
B. Participation in class discussion

7. Representative Text(s) -

Instructor created materials.

8. Disciplines -

Radiological Technology

9. Method of Instruction -

Methods of instruction may include, but are not limited to: lecture, discussion, cooperative learning exercises, and demonstration.

10. Lab Content -

Not applicable.

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

The student will complete a survey related to radiation protection behaviors in the fluoroscopy environment.

Continuing Education Requirements for Certificate/Permit Renewal

(Updated February 2017)

Table of Contents

1. General Information

The continuing education (CE) credits and continuing experience required to renew permits and certificates in radiologic technology are specified in title 17, California Code of Regulation (17 CCR), section 30403. The Radiologic Health Branch does not have a program to provide continuing education credits and does not credential providers of continuing education.

An “approved continuing education credit” means 50 - 60 minutes of instruction received in subjects related to the application of X-ray to the human body and accepted for purposes of credentialing, assigning professional status or certification by the following organizations:

- American Registry of Radiologic Technologists (ARRT)
- Medical Board of California
- Osteopathic Medical Board of California
- California Board of Chiropractic Examiners
- Board of Podiatric Medicine
- Dental Board of California

Please note: “Subjects related to the application of X-ray to the human body” may include X-ray administration, X-ray management, X-ray pathology, X-ray diagnosis and X-ray quality control. However, subjects in MRI, Ultrasound, CPR, or other topics not related to the application of X-rays to the human body cannot be accepted. It is the responsibility of the certificate or permit holder to ascertain the acceptability of courses.

The renewal form mailed to you will include space for documenting the approved CE credits you have earned. You may use the reverse side of the renewal form, if needed. Each individual is required to maintain documents that evidence the completion of approved continuing education credits for four (4) years following the dates the credits were earned. These documents must be made available to the Department upon request. [17 CCR 30403.8]

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2. Licentiates of the Healing Arts – CE Requirements

Licentiates of the healing arts are those physicians and surgeons, osteopathic physicians and surgeons, podiatrists and chiropractors who possess a Radiology supervisor and operator certificate, or a Fluoroscopy, Radiography or Dermatology supervisor and operator permit.

All licentiates need to earn 10 approved CE credits in the two years immediately preceding the expiration date of their certificate/permit.

If an individual holds a fluoroscopy supervisor and operator permit, four (4) of the 10 credits must be in radiation safety for the clinical uses of fluoroscopy. [17 CCR 30403(b)]

An Approved Continuing Education Credit means 50 to 60 minutes of instruction received in subjects related to the application of X-ray to the human body and accepted for purposes of credentialing, assigning professional status or certification by:

- ARRT
- Medical Board of California
- Osteopathic Medical Board of California
- California Board of Chiropractic Examiners
- Board of Podiatric Medicine
- Dental Board of California

EXAMPLE: The Medical Board of California requires that physicians complete 50 hours of approved continuing education during each two-year period, and refers to these hours as Continuing Medical Education (CME) credits. One CE credit is equivalent to one CME credit as defined by the Medical Board of California when X-ray application to the human body is the subject matter of the education.

Licentiates who are in residency or fellowship programs and courses, and seminars and meetings that contain subject matter related to X-ray may qualify for CE credits if they are granted CME status by the Medical Board of California. CME credits are determined to qualify for CE credit on an hour per hour basis of instruction related to X-ray. For example, a 3 day seminar that is granted 24 CME credits by the medical board would need to have discussions or training pertaining to X-ray amounting to at least 10 hours over the 3 day duration of the seminar. The required 10 hours of CE credits can be accrued over all education activities completed in the 2 year period.

It is the responsibility of the certificate or permit holder to ascertain the acceptability of the continuing education activity as a CE credit for the Department's purposes. When completing the renewal form, please list all CME credit quantities in the "Hours/credits" column on the renewal application. If an audit is performed, you will be required to provide the documentation showing that at least 10 of the CME credits listed are related to X-ray.

Additionally, courses and training offered by other recognized organizations can qualify as CE credits if they meet the requirements listed under general requirements above.

For further information on CME credits, please visit www.mbc.ca.gov, and the Osteopathic Medical Board of California at www.ombc.ca.gov. The Board of Podiatric Medicine's continuing competency requirements can be viewed at www.bpm.ca.gov. The Dental Board of California's policy on CE credits can be viewed at www.dbc.ca.gov. The California Board of Chiropractic Examiners has additional requirements related to the training for the use of X-ray and can be viewed at www.chiro.ca.gov.

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3. Physician Assistants Fluoroscopy Permit – CE Requirements

Physician Assistants (PA) issued a PA fluoroscopy permit pursuant to 17 CCR section 30456.2 are required to submit every two (2) years immediately preceding the expiration date of the permit, no less than ten (10) approved continuing education credits, with at least four (4) of the credits addressing radiation safety for the clinical uses of fluoroscopy. [17 CCR 30456.6(a)]

"Approved continuing education credits" means one hour increments of instruction received in subjects related to the application of X-ray to the human body, which have been accepted for purposes of licensing, credentialing, assigning professional status, or certification, by any of the following entities:

- American Registry of Radiologic Technologists (ARRT);
- California Physician Assistant Committee;
- Medical Board of California;
- Osteopathic Medical Board of California;
- California Board of Chiropractic Examiners; or
- Board of Podiatric Medicine.

The CE credit information to be submitted to the Department must include:

- The identity of the group(s) listed above that has accepted the instruction;
- The provider of the instruction and the provider's contact information;
- A description of the instruction; and
- The date(s) of the instruction.

The PA fluoroscopy permit holder must maintain documents that evidence the completion of approved continuing education credits for four years following the dates the credits were earned. These documents must be made available to the Department upon request.

PA's who hold a Radiologic Technologist Fluoroscopy (RTF) permit need to refer to section: **6. Radiologic Technology Fluoroscopy (RTF) Permit ADDITIONAL Requirements** as the above requirements do not apply for the renewal of your RTF permit.

4. Certified Radiologic Technologists (CRT) - CE Requirements

This section discusses CE requirements for diagnostic and therapeutic, CRTs. Mammographic CRTs have ADDITIONAL requirements which are discussed separately below.

CRTs need to earn twenty-four (24) approved CE credits, four (4) of which shall be in digital radiography, in the two years immediately preceding the expiration date of their permit.

The Department will accept the following advanced credential certificates issued by ARRT for 24 CE credits if the certificate was issued within the two years immediately preceding the expiration date of the certificate or permit:

- Mammography**
- Computerized Tomography
- Quality Management
- Bone Densitometry
- Vascular-interventional Radiography
- Cardiac-interventional Radiography
- Radiologist Assistant
- Radiation Therapy

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Note: Issuance of a certificate through the State of California where a state examination was taken does not qualify for CE credits. However, training courses taken in preparation for these exams may be approved by one of the credentialing organizations listed above and therefore would qualify.

Activities meeting the definition of an 'approved academic course' as defined by the ARRT may be awarded CE credit at the rate of 12 CE credits for each academic quarter credit or 16 CE credits for each academic semester credit. The 'approved academic course' must also pertain to the application of X-ray to the human body to qualify as a CE credit for California. For more information on acceptable classes, please visit the ARRT website at www.arrt.org.

The ASRT is a recognized credentialing body for continuing education activities and those activities pertaining to the application of X-ray of the human body will be acceptable to the Department.

5. Mammographic Certified Radiologic Technologists (CRT) – ADDITIONAL Requirements

Each person who has been issued a Mammographic CRT certificate must, in the two years immediately preceding the expiration date of the certificate, must earn 10 of the 24 Approved CE credits in mammography. [17 CCR 30403(a)(1)]

**The advanced credential certificate for mammography will meet the 10 CE credits specific to mammography requirement. The other advanced credentials will not meet this requirement, so additional CE credits will need to be earned specific to mammography.

6. Radiologic Technology Fluoroscopy (RTF) Permit ADDITIONAL Requirements

- CRTs with a RTF permit are required to earn 24 approved continuing education credits; four of which are required to be in radiation safety for the clinical uses of fluoroscopy. [17 CCR 30403(a)(2)].
- PA with a RTF permit: For purposes of renewing your RTF permit, you will need to earn 24 approved continuing education credits; four of which are required to be in radiation safety for the clinical uses of fluoroscopy.

7. Limited Permit X-Ray Technicians (XT) – CE Requirements

Limited Permit X-Ray Technicians (XTs) must earn twenty-four (24) approved CE credits, in the two years immediately preceding the expiration date of their permit.

Limited Permit X-Ray Technicians (XTs) with digital authorization must earn four (4) of the twenty-four (24) CE credits in digital radiography. [17 CCR 30403(a)]

The Department will grant twenty-four (24) CE credits to XTs who have enrolled in an approved Radiologic Technology program and who have documented the completion of a minimum of six months coursework.

Documentation must include a letter from an authorized representative of the approved Radiologic Technology program. Additional documentation may also be required, such as official school transcripts. Be sure to include this information on your renewal application.

Completion of instruction in digital radiologic technology (to obtain digital authorization) in accordance with [17 CCR 30410(c)] is considered to be approved for 20 CE credits for purposes of renewing your permit. It is your responsibility to include these credits on your renewal application.

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8. Certified Technologist, Nuclear Medicine – CE Requirements

The CE requirements and continuing experience required to renew certificates in nuclear medicine are specified in 17 CCR 30536. Nuclear Medicine Certificates expire five years from the date of issuance.

17 CCR 30536(c)(1), states, "Documentation submitted with the application establishes that the applicant has participated in management-sponsored or formal continuing education or training offered by one or more of the following:

(A) Professional organizations or societies.
(B) Institutions of higher learning.
(2) The applicant's education and training includes at least five (5) clock hours since the last certificate renewal or initial application in each of the scopes specified in 17 CCR 30533 for which the certificate was issued.

The Society of Nuclear Medicine (SNM) is a recognized credentialing body for continuing education activities pertaining to nuclear medicine.
Nuclear medicine categories pursuant to 17 CCR 30533(a) states, "Certificates shall be issued for one or more of the following:

(1) Diagnostic in vivo and in vitro tests involving measurement of uptake, dilution, or excretion, including venipuncture, but not involving imaging.
(2) Diagnostic nuclear medicine technology procedures involving imaging, including venipuncture.
(3) Use of generators and reagent kits for preparation of radioactive material.
(4) Internal radioactive material therapy."

CE credits from the Radiopharmacy scope may be applied to either: Non-Imaging (in-vivo/in-vitro) or Generators and Kits, depending upon the topic.

9. Frequently Asked Questions

1. What courses can be accepted for continuing education credit in California?

In order for us to be able to accept a course as credit for continuing education, it needs to be in a subject that is related to the application of X-rays to the human body and it must be approved by the American Registry of Radiologic Technologists, American Society of Radiologic Technologists, Medical Board of California, Osteopathic Medical Board of California, California Board of Chiropractic Examiners, Board of Podiatric Medicine; the Dental Board of California, or Society of Nuclear Medicine (FOR NUCLEAR MEDICINE TECHNOLOGIST ONLY)

2. How many credits do I need to renew my certificate/permit?

- XTs with digital authorization and CRTs need to earn a minimum of twenty-four (24) Approved Continuing Education (CE) credits, four (4) of which are in digital radiography in the 2 years prior to the expiration of their certificate/permit.
- CRTs with a mammography certificate need 24 Approved CE credits, with 10 CE credits that are specific to mammography.
- CRTs with a fluoroscopy permit need 24 Approved CE credits, with 4 CE credits that shall be in radiation safety for the clinical uses of fluoroscopy.
- Certified Supervisors and Operators (California Licensed Physicians and Surgeons, Podiatrists, or Chiropractors) need to earn 10 Approved CE Credits in the 2 years prior to the expiration of their certificate/permit. If a Licentiate holds a fluoroscopy supervisor and operator permit, four of the ten (10) CE credits shall be in radiation safety for the clinical uses of fluoroscopy.

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3. Why were changes made to the CE credit requirement?

The changes and amendment were brought about as the result of recommendations of the Radiologic Technology Certification Committee and fulfills the Department's mandate from the Legislature as stated in H&S Code 114870(b)(2) and (c)(3).

4. How many CE credits do I need if I hold a CRT with a mammography certificate and a fluoroscopy permit?

You are required to submit twenty-four (24) CE credits, with ten (10) hours specific to mammography, four (4) in radiation safety for the clinical uses of fluoroscopy, and four (4) CE credits in digital radiography. If any of the mammography or fluoroscopy CE credits that you have obtained are related to digital radiography, they may be used to satisfy the four (4) digital radiography CE requirements.

5. Do I have to obtain a digital license?

RHB does not issue digital licenses. The proper terminology is "Digital Authorization" and it applies only to XTs. A CRT is not required to obtain a digital authorization.

6. What if I am an XT, but I do not have digital authorization?

XT's who do not have digital authorization are not required to obtain CE credits in digital radiography.

7. With the new digital radiography CE credit requirement, do I have to take additional classes for continuing education?

No. The new CE credit requirement allows the CRT and XT with Digital Authorization to allocate four (4) of the twenty-four (24) CE credits to digital radiography.

8. I am a CRT, but I do not perform computerized tomography (CT). Do I still have to obtain four (4) digital radiography CE credits?

Yes. Under the regulations, all CRT's are required to obtain four (4) CE credits in digital radiography.

9. How can I find out where continuing education courses are being held?

Perform an Internet search using California Radiology Continuing Education or California X-ray Continuing Education. Do not forget to verify that the certificate and course is being given by an approved body as listed in Question #1 and is in a subject that is related to the application of X-rays to the human body.

10. What happens if I have not earned my required credits when my certificate or permit renewal is due?

We cannot process your renewal until you have earned the required credits and sent in your renewal application with the required information and fee. It is a violation of the regulations to continue to work with an expired certificate or permit.

11. Can courses in MRI, Ultra Sound, and CPR be accepted for approved continuing education credits?

No. Credits can be accepted only for approved courses in subjects that are related to the application of X-rays to the human body. These courses can include subjects in radiology administration or management and radiologic pathology, diagnosis, or quality control.

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12. Can the granting of the required 24 CE credits be in subject matter related to the applicant's work area (i.e. US, MRI, NMT, etc.)?

No. The acceptable subject matter is limited to those subjects related to the application of X-rays to humans because the Department-issued certificates and permits authorize those individuals to expose humans to radiation for diagnostic, therapeutic, and mammographic purposes. Ultrasound, magnetic resonance imaging, and nuclear medicine technology (NMT) are not related to the application of X-ray to humans as addressed under the RT Act.

Though NMT involves the use of ionizing radiation, it is specific to the use of radioactive material but not X-ray equipment.

13. Would the performance of fluoroscopy procedures be accepted for CE credits?

No. The performance of fluoroscopy procedures does not meet the criteria in the definition of approved continuing education and would not be accepted for CE credits.

14. Are all continuing education courses approved by ARRT accepted in California as approved continuing education credits?

No. We can only accept approved courses that are in subjects related to the application of X-ray to the human body.

15. How do I report continuing education credits that I have earned?

Complete the renewal application sent with your renewal notice. You will need to retain your original course certificates for (4) four years so that you can provide a copy for audit purposes if needed.

16. Does the renewal application for my certificate/permit require me to submit my actual CE certificates or will a tracking list suffice?

The renewal document needs to provide specific information, one of which is a description of the instruction. The description needs to be specific enough to determine whether the instruction meets the definition of an approved continuing education credit as defined in section 30400(a)(4). The actual certificates, as indicated in section 30403.8, would need to be submitted only if requested.

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FOOTHILL COLLEGE
RADIOLOGIC TECHNOLOGY ADVISORY BOARD COMMITTEE
MEETING MINUTES
February 27, 2018

Dr. Volney Van Dalsem	Medical Director, Radiologic Technology Program & Diagnostic Medical Sonography Program & Outpatient Imaging Services, Stanford Health Care
Nanette Solvanson	Dean of Biological & Health Sciences, Foothill College
Rachelle Campbell	Program Director, Radiologic Technology Program
Jenene Key	Faculty / Clinical Coordinator, Radiologic Technology Program
Bonny Wheeler	Faculty / RSO, Radiologic Technology Program
Melissia Wu	Faculty / Radiologic Technology Program
Kathleen Austin	Acting Program Director, Diagnostic Medical Sonography Program
Judy Wood	Director, Imaging Services, Stanford Health Care
Darlene DeBrito	Director, Imaging Services, Hazel Hawkins Memorial Hospital
Raymond Fellers	Manager, Imaging Services, Palo Alto Med. Foundation, SC
Judi Contento	Clinical Instructor, Radiology, Stanford Health Care
Steven Walters	Director, Radiology, Regional Medical Center
Dianne Tiernan	Director, Radiology, Santa Clara Valley Medical Center
Angela Hurlburt	Manager, Imaging Services, Palo Alto Med. Foundation, PA
Chester Lim	Clinical Instructor, Supervisor, UCSF Medical Center
Justin Reinschmidt	1st Year Student Representative, Foothill College, RT Program
Rasha Shehadeh	2nd Year Student Representative, Foothill College, RT Program
Hillary Bliss	2nd Year Student Representative, Foothill College, DMS Program
Cynthia Harrison	Deputy Sector Navigator/Director, Health Workforce Initiative, Bay Area Region Director Regional Testing Center for Nursing Assistant Testing

(Lunch served 11:00-11:30)

Rachelle Campbell, RT Program Director called the meeting to order at 11:05 am.

Welcome/Introductions
Rachelle welcomed and thanked everyone for attending the meeting.

Program Announcements
Bonny Wheeler announced that she would be retiring at the end of Spring quarter (June 2018).

RT Program Mission Statement
Rachelle outlined the program's mission, goals and campus/program leadership to the attendees. She reviewed the current mission statement and outlined a proposed statement for consideration. She then asked if there were any questions and/or suggestions for revision.

- **Current Mission Statement:** The Foothill College Radiologic Technology Program prepares students to function competently and effectively as radiologic technologists and provides a foundation for professionalism within healthcare communities.

- **Proposed Mission Statement:** The Foothill College Radiologic Technology Program prepares students to function competently and effectively as radiologic technologists and provides a foundation for professionalism within healthcare communities with emphasis on patient centered care and radiation protection.

The group voted unanimously to adopt the new mission statement as presented.

Program Effectiveness Data

Rachelle reviewed the assessment tools and benchmarks being used for the RT program. The assessment tools are used throughout the year and include the following:

Program Assessment Tools

- **Employer Survey** - collection timeframe is 12 months post graduation to match accreditation requirements.
- **Graduate Survey** - collection timeframe is 12 months post graduation to match accreditation requirements.
- **Clinical Rotation Assessment** - filled out by current students at the end of each rotation.
- **Clinical Instructor Assessment** - filled out by current students at the end of each rotation.
- **Laboratory Assessment** - filled out quarterly by 1st year students.
- **Lecture Course Assessment -** administered by the instructor yearly.

2017 Graduate Surveys Results

The online surveys were sent out and 14 graduates responded to the survey. All 14-program alumni currently hold jobs as radiologic technologists. The majority are employed full time (71%), followed by per diem (21%) and part-time (7%). The majority of the alumni (84%) earn an average gross yearly salary of $80,000.01 or more. When asked for **suggestion to improve the program**, alumni cited more technique training and more time for rotations. "C-arm practice and OR workflow of x-ray tech, which the program is already incorporating."

2017 Employer Survey Results

The online surveys were sent out and 6 employer responses were received. All reflected a good and/or excellent rating to the survey questions. A suggestions for program improvement was to increase the graduates OR/C-arm preparation. "Students need more time in the OR so they can become more comfortable. Should have the weeks in the OR consecutively for consistency."

2017 Graduate Employment

FHC benchmark reads that 90% of graduates will be employed after 12-months. Based on an email survey performed by the faculty, 95% of the 2017 graduates are currently employed six-months post-graduation. One graduate is currently not seeking employment due to moving out of the area.

2017 ARRT Results

The Program has an ARRT Exam Pass Rate Benchmark of 90%. The national pass rate average for 2017 was 84%. The FHC Program had a 100% pass rate. 20 out of 20 students successfully passed the ARRT board exam on the first attempt. The RT Program's 5-year ARRT pass rate average is 99% on the first attempt.

Retention Rate
The Program's Retention Benchmark is 75% of students will complete the program. The class of 2017 had a retention rate of 91%. The program utilizes an imbedded tutor, a student from the second-year class, to allow students to seek academic assistance during evenings and weekends. The program also offers supplemental lab hours where students can work with RT faculty on areas such as positioning, technical factors, image analysis and anatomy identification. The RT Program's 5-year retention rate average is 90%.

Class of 2017	Class of 2018	Class of 2019
Applications – 343 Accepted – 22 Graduated– 20 Reasons for Attrition: ○ Clinical – 1 ○ Personal – 1 ○ Medical – 0	Applications – 265 Accepted – 22 Currently – 18 Reasons for Attrition: ○ Clinical – 3 ○ Personal – 1 ○ Medical - 0	Applications – 221 Accepted – 23 Currently – 23 Reasons for Attrition: ○ Clinical – 0 ○ Personal – 0 ○ Medical - 0

Student Success / Awards
ACERT Conference 2018: On Jan. 30-Feb 2, the faculty, clinical instructors and students went to Las Vegas for the Association of Collegiate Educators in Radiologic Technology Annual Conference.

- Several groups of second year students participated in the Scientific Display Competition this year. Foothill students had a great showing at the event and placed 1st and 2nd place in the Original Research Scientific Display. Congratulations goes to the following students:
    - Austin Nguyen, Sean Kench and Jaspreet Gill who placed 1st for their research display titled; "How Well Does Wiping Work". Their research focused on infection control of department cleaning.
    - Berremy Mulingtapang, Narciso Lara and Kim Phan-Pennington placed 2nd for their research display titled; "The Almighty Marker?" Their research focused on infection control of technologist markers.
- Samaria Zarate, first year RT student was awarded the Patient Safety Good Catch Award at El Camino Hospital.

Hi-Touch Healthcare: The Critical Six Soft Skills
Cynthia Harrison, Deputy Sector Navigator/Director, Health Workforce Initiative was invited to discuss a training program titled, Hi-Touch Healthcare: The Critical Six Soft Skills. The training program provides the healthcare industry with the background and tools needed to educate healthcare employees at all levels about improving soft skills. Free training modules are available at the web address below:
https://ca-hwi.org/about-hwi/quick.../hi-touch-healthcare-the-critical-six-soft-skills
Additionally, affiliates were invited to request a trainer to come to their facility to work with staff members regarding any of the topics in the Hi-Touch Healthcare: The Critical Six Soft Skills program. Examples include communication, listening and teamwork. Anyone interested in requesting a trainer can contact Rachelle for more information.

Program Improvements Projects

Trajecsys Rollout - Rachelle informed the group that the program began using an online clinical management and tracking system for student record keeping in Fall 2017. The cloud-based management

system is being used for time records, competencies, exam logs, evaluations and other forms. The program is currently sponsoring the initial rollout, so that it is free for the students. The cost is $150 per student for 2 years. Both students and clinical instructors stated that the system has been very helpful and easy to use. The system is also being utilized as an educational tool related to repeat exam calculations as well as student reflections for areas of improvement.

Prerequisite/Interprofessional Education Expansion - Rachelle stated that Starting in 2019, the RT program is going to require the course, Communication 2, Interpersonal Communication (5 units) as a prerequisite to the program. The faculty evaluated multiple Communication Courses after reviewing student data. The data indicated that a lack of self-confidence and communication were two barriers to student success during the program. The Communication course selected deals with both of these issues. The goal is for students to enter the program with a firm foundation of knowledge that the program can then build on.

Rachelle stated that interprofessional education has been woven through the first half of the program. During the AHS course series, students from all of the allied health programs are brought together to participate in activities focused on communication, teamwork and patient safety. Further work will be done over the next year to incorporate opportunities for this education in the second half of the program.

Online Program Application – Rachelle informed the group that all Foothill allied health program applications are now 100% online. The new process was rolled-out this year. The goal is to streamline the application process.

Program Feedback

OR / C-arm Curriculum - Rachelle gave a big thank you to Stanford Heath Care for donating a C-arm to the RT program. The equipment is currently being housed in Room 5210. Rachelle stated that the program is in need of a simulation room to house RT equipment for activities and education sessions. She outlined the program's efforts to increase student performance:

- Videos were incorporated into the first-year student didactic education to introduce them to the OR environment. This includes examples of surgery as well as simulation videos created by the second-year students.
- Increased the student's hands-on activities during the first-year lab as well as a simulation lab during summer quarter.
- Increased the clinic OR rotation to a minimum of two-weeks per quarter. The two weeks are scheduled back to back.
- Incorporated c-arm/OR terminal competency requirements during the final quarter of the program when applicable to provide additional assessment opportunities for graduating students.
- Request for a dedicated room at Foothill to simulate the OR environment.

- Suggestions for improvement from the group included:
  - Each CI or designee perform an OR orientation prior to the beginning of the student's rotation.
  - Ask MD's to speak to the students to facilitate better communication. An orthopedic surgeon comes to the second AHS Interprofessional Education session to speak, but it would be very impactful to have a surgeon from one of our affiliates speak to the second-year students as well.

Continued efforts will be focused on this topic to increase student skill in the OR environment.

RHB

Rachelle outlined the current RHB timeline for processing the CRT / Fluoroscopy applications. She stated that RHB has a 45-day back-log and asked the group for their current fluoroscopy requirements for hiring new graduates. She also informed the group that RHB will be transitioning to an online application in the upcoming years.

Continuing Education Short Courses
Rachelle asked if the affiliates would be interested in the RT program developing two short courses that cover the topics of digital and radiation protection in fluoroscopy. These courses would be offered to technologist during the evening and/or on Saturdays. The response was that they would be very interested and would even be willing to host the events at their sites.

Health Care Market Trends / Affiliate News / Hiring Updates

- UCSF – Moving to employing registry technologist.
- PAMF-SC – No job openings at this time.
- PAMF-PA – US position, Mammography position, per diem may be available soon.
- RMC - RT / CT / US positions.
- HH – RT II / CT position.
- VMC - 3 RT positions, US per diem.
- SHC – MR position. The new hospital will be opening in 2019. Several positions will be available before the opening.

Other

- **Affiliate Informational Session:** The upcoming Spring Quarter Informational Session for second year students is scheduled for Wednesday, May 23, 2018 at the Foothill College campus. Two representatives from each affiliate are invited to give a short talk on what their facility has to offer to potential employees. Invitations and parking passes will be sent via email.

Diagnostic Medical Sonography Program

- Kathleen Austin, DMS Acting Program Director, gave a presentation regarding the DMS program statistics for 2017. (Please see attached sheet for details).

Meeting Adjourned at 1:00 pm. **Minutes submitted by Jenene Key / Rachelle Campbell**

Handouts:
Agenda
Diagnostic Medical Sonography Report

Ensure you're using the current version of this form by downloading a fresh copy from the CCC webpage!

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 #: THTR 25C

Course Title: FASHION AND COSTUME CONSTRUCTION III

Credit Status:

X Credit course
_____ Noncredit course

Catalog Description:

Continuation of THTR 25B with a practical focus on creating costumes from designs for a theatrical production. Further use and practice with complex sewing projects and patterning skills to include drafting and fitting a body block, then creating a pattern from it, basic draping techniques and advanced materials usage with specialty materials for complex theatrical headgear, wigs, and costumes.

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:

- 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 demonstrable need 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.

This course supports the college service area by extending students tangible opportunities for student success to develop extended, practiced mastery of the subject area. The course provides students increased experience in technical theatre as they enter the workforce.

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: BRUCE MCLEOD **Date:** 05/01/18

Division Curriculum Representative: Mark Anderson **Date:** 5/2/18

Date of Approval by Division Curriculum Committee: 5/2/18

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

Current Course Outline Editor

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Fine Arts and Communication

THTR 25C FASHION & COSTUME CONSTRUCTION III

Edit Course Outline

THTR 25C **FASHION & COSTUME CONSTRUCTION III** **Summer 2016**

3 hours lecture, 3 hours laboratory. **4 Units**

Total Contact Hours: 72 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 144 *(Total of All Lecture, Lab and Out of Class hours X 12)*

Lecture Hours: 3 **Lab Hours:** 3 **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 with P/NP option

Degree Status: Applicable **Credit Status:** Credit

Degree or Certificate Requirement: AA Degree

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: UC/CSU **Validation:** 7/30/15

Division Dean Information -

Seat Count: 30 **Load Factor:** .115 **FOAP Code:** 114000143101100600

Instruction Office Information -

FSA Code:

Distance Learning: no

Stand Alone Designation: no

Program Title:

Program TOPs Code:

Program Unique Code:

Content Review Date: 7/29/15; review for 2018-19

Former ID:

Need/Justification -

This course is a restricted support course for the AA degree in Theatre Arts.

1. Description -

Continuation of THTR 25B with a practical focus on creating costumes from designs for a theatrical production. Further use and practice with complex sewing projects and patterning skills to include drafting and fitting a body block, then creating a pattern from it, basic draping techniques and advanced materials usage with specialty materials for complex theatrical headgear, wigs, and costumes.

Prerequisite: THTR 25B.

Co-requisite: None

Advisory: None

2. Course Objectives -

The student will be able to:

A. research, classify and identify costume styles and periods for the theatre and stage.
B. master complex elements of costume construction for the stage.
C. develop creative design ideas.
D. practice with advanced techniques of costume construction from drafting to finish.
E. develop techniques of draping on a dress form to create patterns and clothing for costumes on the stage.
F. interpret sketches and renderings of costume designs for theatrical productions, and understand the techniques used to create costumes for various regions and in different cultures.
G. understand the organization elements in creating costumes for production.

3. Special Facilities and/or Equipment -

Studio facilities with access to sewing machines and tables, overlock, blind hemmer, industrial iron and table, steamer, and costume shop. Space appropriate for storing class materials and projects. Space appropriate for storing show costumes.

4. Course Content (Body of knowledge) -

A. Research and analyze clothing for particular periods in history and the relationship to the theatre, stage and script.
B. Take a leadership role in body measuring, pulling costumes, fitting, garment measuring, garment alterations, show maintenance and laundering theatrical costumes.
C. Develop a complex headgear or costume design/idea/ fabrication, that would include lights, moving parts or a complex breakaway theme.
D. Learn and practice techniques of drafting a bodice top, constructing it and fitting it.
E. Simple Bias draping project on a dress form to understand grain and the draping concept of dead hang pivot fullness.
F. Analyze the use of line, texture, color and form in the creation of costume design in American, European, Hispanic, African and/or Eastern/Asian theatrical societies.
G. Analyze a script, create a costume plot, production schedule, and evaluate costs and budgeting for costumes in the theatre.

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

A. In-class projects
B. Assigned construction exercises
C. Project review
D. Final exam project/paper

7. Representative Text(s) -

Cunningham, Rebecca, Basic Sewing for Costume Construction: A Handbook, 2nd ed. Waveland Press Inc, 2011.
Ingham, Rosemary and Liz Covey, Costume Technicians Handbook, 3rd ed. Portsmouth, Heineman Drama, 2003.

The Ingham/2003 text is the current school standard, and needs to be included. Sewing techniques do not change much, and it's research and shopping sections are updated yearly online to keep relevant.

8. Disciplines -

Stagecraft

9. Method of Instruction -

A. Lecture presentations and classroom discussion covering costume research, technology and construction.
B. Oral presentations of major projects followed by in-class discussion and evaluation.
C. Instructor guided laboratory practice sessions.
D. Instructor demonstrations of costume technology and techniques.

10. Lab Content -

A. Supervised construction of related projects including racking a show and pulling existing garments, creating new garments and accessories and maintaining the show during its run.
B. Post show projects include millinery and thermoplastic fabrication and advanced structuring such as tailoring and corsetry.

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

A. Reading assignments include reading a script and chapters from the textbook, as well as research assignments that include verbal and visual research.
B. Students complete a paper that outlines the techniques they have learned in this class.

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FOOTHILL COLLEGE
Stand-Alone Course Approval Request

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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 #: THTR 40B

Course Title: THEATRICAL MAKEUP FOR PRODUCTION

Credit Status:

X Credit course
____ Noncredit course

Catalog Description:

Continuation of work in THTR 40A with emphasis in more advanced techniques and practical application experience for the stage.

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:

- 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):

X Transfer
____ Workforce/CTE
____ Basic Skills

Criteria B. Need

A course may only be granted Stand Alone Approval if there is demonstrable need 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.

This course supports the college service area by providing students tangible opportunities for success in developing practiced mastery of the subject area, and is transferable towards degree credit at many institutions.

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: Janis Bergmann **Date:** 4/30/18

Division Curriculum Representative: Eric Kuehnl **Date:** 5/2/18

Date of Approval by Division Curriculum Committee: 5/2/18

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

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THTR 40B THEATRICAL MAKEUP FOR PRODUCTION

Edit Course Outline

THTR 40B **THEATRICAL MAKEUP FOR PRODUCTION** **Summer 2018**

3 hours lecture, 3 hours laboratory. **4 Units**

Total Contact Hours: 72 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 144 *(Total of All Lecture, Lab and Out of Class hours X 12)*

Lecture Hours: 3 **Lab Hours:** 3 **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 with P/NP option

Degree Status: Applicable **Credit Status:** Credit

Degree or Certificate Requirement: AA Degree

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: UC/CSU **Validation:** 01/8; 12/9;11/12; 6/17

Division Dean Information -

Seat Count: 30 **Load Factor:** .115 **FOAP Code:** 114000143101100600

Instruction Office Information -

FSA Code: 1000 - DRAMA/THEATER ARTS

Distance Learning: no

Stand Alone Designation: no

Program Title: THEATRE ARTS

Program TOPs Code: 100700

Program Unique Code: 6047

Content Review Date:

Former ID:

Need/Justification -

This course is a restricted support course for the AA degree in Theatre Arts.

1. Description -

Continuation of work in THTR 40A with emphasis in more advanced techniques and practical application experience for the stage.

Prerequisite: THTR 40A.

Co-requisite: None

Advisory: Not open to students with credit in DRAM 40B.

2. Course Objectives -

The student will be able to:

A. further analyze and appraise differences and similarities of facial anatomy.
B. further describe, differentiate and compare basic facial types and how these may be simulated through theatrical makeup.
C. design makeup for a character or all characters of a theatrical production.
D. appraise and master the application of various makeup products, including advanced and specialty products, and illustrate ways to interchange and substitute when necessary.
E. employ techniques of preparation and application of advanced prosthetics.

3. Special Facilities and/or Equipment -

A. Ben Nye Makeup Kit or its equivalent, with additional advanced makeup materials.
B. Stage space or classroom, with appropriate lighting capabilities and table, to accommodate full class instructor demonstrations.
C. Various advanced casting/mold making and art supplies.
D. Protective clothing.
E. Dressing and makeup rooms equipped with running water, lockers, showers, makeup tables and mirrors.
F. Lighted makeup preparation station for each student.

4. Course Content (Body of knowledge) -

A. Study facial anatomy and character type
    1. student's individual type
    2. various age, gender, and ethnic types
    3. the effect of stage lighting, costumes, scenery and stage size on facial anatomy and communicating character
B. Review and further practice enhancement of characterization through makeup techniques
    1. straight makeup
        a. basic/beauty
        b. corrective (with special attention to different racial/ethnic types, genders, and/or historical or famous people)
    2. character makeup
        a. creative/clown
        b. age
        c. facial hair
        d. animal/character
    3. specialty makeup
        a. three-dimensional effects/non-prosthetic
        b. three-dimensional effects/prosthetic
C. Practice researching and designing assigned makeup projects, honing appropriate drawing skills and formats in the process
    1. add to makeup morgue in categories for each assigned makeup project
    2. render makeup designs using art tools (pencils, colored pencils, pastels, etc.)
    3. practical experience under production pressure
D. From instructor demonstrations, further practice experimentation with a wide variety of makeup materials
    1. contents of an "all purpose makeup kit", including foundations (oil and water base), highlights and shadows, liners, powder, brushes, makeup removers, etc.
    2. compare and contrast products from a variety of manufacturers and distributors of theatrical makeup, learning how to substitute when necessary for manufactured make-up or prohibitively expensive products
    3. practice using materials for special character effects
        a. facial hair (crepe wool, gauze, latex, spirit gum, etc., as well as a familiarity with human hair and ventilated appliances)
        b. three-dimensional effects/non-prosthetic, using:

1. facial feature reconstruction materials (wax, putty, etc.)
2. special effects materials for cuts, bruises, burns, scars, etc. (liquid latex, cotton, tissue, gelatin, rigid collodian, blood, etc.)

E. Design, create and apply advanced prosthetic makeup, using:
1. life-mask casting materials (alginate, plaster, etc.)
2. modeling materials (plastalina clay, modeling tools, etc.)
3. advanced appliance making materials (two-part molds, cold foam latex, and/or gelatine, separators and sealers, makeup, etc.)

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

A. In-class makeup projects
B. Maintenance of makeup "morgue" in scrapbook fashion, to be evaluated as a term project
C. Makeup analyses which must result in completed makeups, one of these to be a final project

7. Representative Text(s) -

Debreceni, Todd. Special Makeup Effects for Stage and Screen. 2nd ed. Burlington: Focal Press, 2013.

8. Disciplines -

Theatre Arts

9. Method of Instruction -

Lecture, discussion, cooperative learning exercises, field work, laboratory, demonstration

10. Lab Content -

A. Practice with and application of specified makeup materials and techniques, including self-application as well as application on others.
B. Cooperative creation of plaster "life-masks", including supervision of students new to the process.
C. Observation and categorization of facial features, character types, and artistic inspirations.

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

A. Reading and referral to chapters in text books.
B. Reading and referral to available makeup technique books and magazines.
C. Demonstration and application notes compiled in personal makeup morgue.

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FOOTHILL COLLEGE
Stand-Alone Course Approval Request

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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 #: THTR 45C

Course Title: TECHNICAL THEATRE IN PRODUCTION III

Credit Status:

X Credit course
____ Noncredit course

Catalog Description:

Continuation of THTR 45B. Students will gain additional practical experience in the application of production responsibilities in any of the following: construction, scenery, properties, costume, lighting, sound, and running crews. Students will assume greater responsibility for the design and implementation of technical elements for a theatrical production as department heads or group leaders.

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:

- 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 demonstrable need 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.

This course supports the college service area by extending students tangible opportunities for student success to develop extended, practiced mastery of the subject area. The course provides students increased experience in technical theatre as they enter the workforce.

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: BRUCE MCLEOD **Date:** 05/01/18

Division Curriculum Representative: Mark Anderson **Date:** 5/2/18

Date of Approval by Division Curriculum Committee: 5/2/18

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

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Fine Arts and Communication

THTR 45C TECHNICAL THEATRE IN PRODUCTION III

Edit Course Outline

THTR 45C **TECHNICAL THEATRE IN PRODUCTION III** **Summer 2017**

1 hour lecture, 9 hours laboratory. **4 Units**

Total Contact Hours: 120 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 144 *(Total of All Lecture, Lab and Out of Class hours X 12)*

Lecture Hours: 1 **Lab Hours:** 9 **Weekly Out of Class Hours:** 2

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: AA Degree, Certificate of Achievement

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: UC/CSU **Validation:** 11/12;10/01/13;10/28/14

Division Dean Information -

Seat Count: 100 **Load Factor:** .166 **FOAP Code:** 114000143101100600

Instruction Office Information -

FSA Code: 1000 - DRAMA/THEATER ARTS

Distance Learning: no

Stand Alone Designation: no

Program Title: THEATRE ARTS

Program TOPs Code: 100700

Program Unique Code: 6047

Content Review Date: 0000-00-00

Former ID: Formerly: THTR 99C

Need/Justification -

This course is a restricted support course for the AA degree and the Certificate of Achievement in Theatre Technology

and the AA degree in Theatre Arts.

1. Description -

Continuation of THTR 45B. Students will gain additional practical experience in the application of production responsibilities in any of the following: construction, scenery, properties, costume, lighting, sound, and running crews. Students will assume greater responsibility for the design and implementation of technical elements for a theatrical production as department heads or group leaders.

Prerequisite: THTR 45B.

Co-requisite: None

Advisory: Students must meet with the instructor during the first week of the quarter to arrange hours and assignments; this course is included in the Production-Technical family of activity courses; not open to students with credit in THTR 99C.

2. Course Objectives -

The student will be able to:

A. Demonstrate mastery of the skills required to assemble and supervise theatrical crew in the course of a production schedule.
B. Demonstrate the ability to organize and schedule small groups in solving the technical demands of the production
C. Create production schedules and organize preparation for technical rehearsals with minimal supervision
D. Coordinate work between several production departments from design to performance

3. Special Facilities and/or Equipment -

Rehearsal space with an unobstructed, flat floor, approximately 30' x 40' for rehearsal. Fully-equipped theatre for performance; make-up studio and dressing room facilities.

4. Course Content (Body of knowledge) -

A. Supervision of the technical tasks during the running of a production (Lab)
B. Organize and schedule a small group responsible for creating or assembling technical elements for the production including scenery, properties, costumes, lighting, sound or visual effects (Lec and Lab)
C. Demonstrate individual responsibility for preparation and organization of tasks required during technical and dress rehearsals of a production (Lab)
D. Participate in the design, creation and installation of special production elements in scenery, properties, costumes, lighting, sound or visual effects as required for the production (Lec and Lab)

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

A. Faculty observation and ongoing performance reviews
B. Evaluation of individual projects in technical theatre production.
C. Skill demonstrations
D. Final evaluation of performance responsibilities and outcomes

7. Representative Text(s) -

Play scripts and instructor handouts.

8. Disciplines -

Stagecraft, Theatre Arts

9. Method of Instruction -

Lecture, Discussion, Cooperative learning exercises, Oral presentations, Laboratory, Demonstration.

10. Lab Content -

A. Participation and observation of rehearsal process for scheduled production.

B. Perform various productions support functions dependant on the demands of costumes, set construction, properties, lighting, etc.
C. Design, create or facilitate production elements for the stage

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

A. Read scripts for production preparation.
B. Read and assess background materials for production preparation and relevance.
C. Research materials and methods of implementing required production elements
D. Independently work cooperatively with students and faculty to develop and implement production schedules.

Ensure you're using the current version of this form by downloading a fresh copy from the CCC webpage!

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 #: THTR 45D

Course Title: TECHNICAL THEATRE IN PRODUCTION IV

Credit Status:

X Credit course
____ Noncredit course

Catalog Description:

Students will gain practical experience in backstage functions of theatre crews. Students will work backstage during the final rehearsals and performances for the department production.

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:

- 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 demonstrable need 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.

This course supports the college service area by extending students tangible opportunities for student success to develop extended, practiced mastery of the subject area. The course provides students increased experience in technical theatre as they enter the workforce.

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: BRUCE MCLEOD **Date:** 05/01/18

Division Curriculum Representative: Mark Anderson **Date:** 5/2/18

Date of Approval by Division Curriculum Committee: 5/2/18

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

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THTR 45D TECHNICAL THEATRE IN PRODUCTION IV

Edit Course Outline

THTR 45D **TECHNICAL THEATRE IN PRODUCTION IV** **Summer 2018**

6 hours laboratory. **2 Units**

Total Contact Hours: 72 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 72 *(Total of All Lecture, Lab and Out of Class hours X 12)*

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

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: AA Degree

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: UC/CSU **Validation:** 11/12;10/13;10/14;6/16

Division Dean Information -

Seat Count: 100 **Load Factor:** .095 **FOAP Code:** 114000143101100600

Instruction Office Information -

FSA Code: 1000 - DRAMA/THEATER ARTS

Distance Learning: no

Stand Alone Designation: no

Program Title: THEATRE ARTS

Program TOPs Code: 100700

Program Unique Code: 6047

Content Review Date:

Former ID: Formerly: THTR 99D

Need/Justification -

This course is a restricted support course for the AA degree in Theatre Arts.

1. Description -

Students will gain practical experience backstage functions of theatre crews. Students will work backstage during the final rehearsals and performances for the department production.

Prerequisite: None

Co-requisite: None

Advisory: Completion of or concurrent enrollment in THTR 21A; students must meet with the instructor during the first week of the quarter to arrange hours and assignments; hours are typically during evenings and on weekends during the 6th-10th weeks of the quarter; this course is included in the Production-Technical family of activity courses; not open to students with credit in THTR 99D.

2. Course Objectives -

The student will be able to:

A. Demonstrate mastery of the skills needed to organize a small technical theatre crew in an area of theatrical production.
B. Demonstrate mastery of the skills needed to organize small groups in solving the technical demands of a theatrical production.
C. Work cooperatively to create schedules and organize preparation for technical rehearsals and performances for a theatrical production.
D. Demonstrate mastery of basic theatre terminology associated with several areas of technical theatre, including scenery, properties, costumes, lighting, sound and visual effects.

3. Special Facilities and/or Equipment -

Rehearsal space with an unobstructed, flat floor, approximately 30' x 40' for rehearsal. Fully-equipped theatre for performance; make-up studio and dressing room facilities. Fully equipped theatre for the operation of a production.

4. Course Content (Body of knowledge) -

A. Supervision of the technical tasks during the running of a production
B. Organize and schedule the creation and assembly of multiple technical elements for a large, multi scene theatrical production, including scenery, properties, costumes, lighting, sound or visual effects
C. Responsibility for preparation and organization of tasks required during technical and dress rehearsals of a production

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

A. Faculty observation and ongoing performance reviews
B. Evaluation of individual projects in technical theatre production
C. Skill demonstrations
D. Final evaluation of performance responsibilities and outcomes

7. Representative Text(s) -

Scripts and handouts used in class will be provided by the instructor.

8. Disciplines -

Stagecraft or Theatre Arts

9. Method of Instruction -

A. Working cooperatively with other students and faculty to coordinate the elements of a production.
B. Recording onstage and offstage actions of cast and crew members to maximize performance repeatability.
C. Using appropriate theatre shop tools and methods to do basic repairs to production elements.
D. Coordinating with other students and faculty to maintain appropriate backstage behavior for an efficient and safe theatre environment.

10. Lab Content -

A. Participation, observation and evaluation of rehearsal process for scheduled production.
B. Perform various production support functions dependent on the demands of costumes, scenery, properties, lighting and sound.
C. Execute front of house or backstage activities within specific production requirements and accepted procedures.

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

A. Read scripts for production preparation.
B. Read and assess background materials for production preparation and relevance.
C. Independently work with other students to develop and implement production schedules.

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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 #: THTR 46A

Course Title: THEATRE DEVELOPMENT WORKSHOP I

Credit Status:

X Credit course
____ Noncredit course

Catalog Description:

This course teaches the full development of an organic, original production from inception to performance. Under the guidance and supervision of the instructor who initiates the process, students will all contribute to produce a full-length production consisting of several student-generated short plays. Beginning students will focus as actors and production support as needed. The quarter culminates with several public performances.

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:

- 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):

X Transfer
_____ Workforce/CTE
_____ Basic Skills

Criteria B. Need

A course may only be granted Stand Alone Approval if there is demonstrable need 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.

This course supports the college service area by providing students with tangible opportunities for success in developing knowledge and practice of the subject area, and is transferable towards degree credit at many institutions.

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: Janis Bergmann **Date:** 4/30/18

Division Curriculum Representative: Eric Kuehnl **Date:** 5/2/18

Date of Approval by Division Curriculum Committee: 5/2/18

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

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THTR 46A THEATRE DEVELOPMENT WORKSHOP I

Edit Course Outline

THTR 46A **THEATRE DEVELOPMENT WORKSHOP I** **Summer 2017**

1 hour lecture, 3 hours laboratory. **2 Units**

Total Contact Hours: 48 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 72 *(Total of All Lecture, Lab and Out of Class hours X 12)*

Lecture Hours: 1 **Lab Hours:** 3 **Weekly Out of Class Hours:** 2

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: AA Degree

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: UC/CSU **Validation:** 07/10;11/11;11/26/12

Division Dean Information -

Seat Count: 30 **Load Factor:** .070 **FOAP Code:** 114000143101100700

Instruction Office Information -

FSA Code: 1000 - DRAMA/THEATER ARTS

Distance Learning: no

Stand Alone Designation: no

Program Title: THEATRE ARTS

Program TOPs Code: 100700

Program Unique Code: 6047

Content Review Date: 0000-00-00

Former ID:

Need/Justification -

This course is a restricted support course for the AA degree in Theatre Arts.

1. Description -

This course teaches the full development of an organic, original production from inception to performance. Under the guidance and supervision of the instructor who initiates the process, students will all contribute to produce a full-length production consisting of several student-generated short plays. Beginning students will focus as actors and production support as needed. The quarter culminates with several public performances.

Prerequisite: None

Co-requisite: None

Advisory: This course is included in the Production-Performance family of activity courses; not open to students with credit in THTR 50.

2. Course Objectives -

The student will be able to:

A. develop an awareness of skills applicable to all aspects of theatre production.
B. immediately and practically apply knowledge and skills directly into the discipline of theatre production.
C. participate as an actor and/or production support in multiple areas of theatre craft

3. Special Facilities and/or Equipment -

A. A building with an unobstructed, flat floor approximately 30' x 40', as well as additional classroom spaces for rehearsals.
B. Access to and use of simple furniture and set pieces, as well as minimal props and costume pieces.
C. A studio theatre performance space with seating for approximately l00 people.
D. Access to approximately 100 folding chairs and portable platforms for potential outdoor performances.

4. Course Content (Body of knowledge) -

A. Study,observe and participate in a broad range of theatre production elements, in order to understand the inner workings of the theatrical production process.
    1. Creative: Script writing, directing, acting, design
    2. Technical: Stage Management, running crews
    3. Production: House Management, publicity, concessions
B. Contribute to a viable performance product for public audience as the culmination of the terms' process.
    1. Understand the audition process (all acting and technical roles and positions will be assigned and/or supervised by student leaders and the instructor)
    2. Identify and adhere to deadlines and consequential scheduling needs
    3. Participate in all technical and dress rehearsals and performance times
C. Explore work as an actor and/or production support
    1. Meet all deadlines for script breakdown and memorization
    2. Understand rehearsal preparation and performance requirements
    3. Understand the role an individual plays in a multi-collaborative art form

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

A. Students' performance will be evaluated on the basis of quality and consistency of contribution to the ensemble process.
B. Students' fulfillment of assigned roles necessary to complete the cooperative task of producing the performance.
C. Students will be evaluated on strength of progressive growth and development during the term.
D. Several public performances of the production will be presented. The quality of performances will be discussed individually with the student and during group critiques and evaluations.

7. Representative Text(s) -

Scripts generated by the class.

8. Disciplines -

Theatre Arts

9. Method of Instruction -

Lecture, Discussion, Cooperative learning exercises, Oral presentations, Laboratory.

10. Lab Content -

A. Cooperative rehearsal and development of student created plays.
B. Student responsibility coordinating entire program into performance ready entity.
C. Scheduled technical rehearsals and public performance time.

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

A. Reading and development of viable, performable short plays
B. Group and individual reading of student written work

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FOOTHILL COLLEGE
Stand-Alone Course Approval Request

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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 #: THTR 46B

Course Title: THEATRE DEVELOPMENT WORKSHOP II

Credit Status:

X Credit course
____ Noncredit course

Catalog Description:

Delves into the full development of an organic, original production from inception to performance. Students will produce a full-length production consisting of several student-generated short plays. Focus on writing skills and creative contributions to the shows content. Student responsibilities may extend to additional areas of acting and production support. The quarter culminates with several public performances.

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:

- 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):

X Transfer
_____ Workforce/CTE
_____ Basic Skills

Criteria B. Need

A course may only be granted Stand Alone Approval if there is demonstrable need 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.

This course supports the college service area by extending students tangible opportunities for student success to develop extended, practiced mastery of the subject area and is transferable towards degree credit at many institutions.

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: Janis Bergmann **Date:** 4/30/18

Division Curriculum Representative: Eric Kuehnl **Date:** 5/2/18

Date of Approval by Division Curriculum Committee: 5/2/18

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

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THTR 46B THEATRE DEVELOPMENT WORKSHOP II

Edit Course Outline

THTR 46B **THEATRE DEVELOPMENT WORKSHOP II** **Summer 2017**

1 hour lecture, 3 hours laboratory. **2 Units**

Total Contact Hours: 48 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 72 *(Total of All Lecture, Lab and Out of Class hours X 12)*

Lecture Hours: 1 **Lab Hours:** 3 **Weekly Out of Class Hours:** 2

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: AA Degree

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: UC/CSU **Validation:** 11/26/12; 10/01/13

Division Dean Information -

Seat Count: 35 **Load Factor:** .059 **FOAP Code:** 114000143101100700

Instruction Office Information -

FSA Code: 1000 - DRAMA/THEATER ARTS

Distance Learning: no

Stand Alone Designation: no

Program Title: Theatre Arts

Program TOPs Code: 100700

Program Unique Code: 06047

Content Review Date: 0000-00-00

Former ID:

Need/Justification -

This course is a support course for the AA degree in Theatre Arts.

1. Description -

Delves into the full development of an organic, original production from inception to performance. Students will produce a full-length production consisting of several student-generated short plays. Focus on writing skills and creative contributions to the shows content. Student responsibilities may extend to additional areas of acting and production support. The quarter culminates with several public performances.

Prerequisite: None

Co-requisite: None

Advisory: This course is included in the Production-Performance family of activity courses; not open to students with credit in THTR 50B.

2. Course Objectives -

The student will be able to:

A. substantially develop skills applicable to the writing of play scripts for theatrical production.
B. practically apply acquired skills directly into a public theatre production.
C. participate in multiple areas of theatre craft.

3. Special Facilities and/or Equipment -

A. An unobstructed, flat floor approximately 30' x 40', as well as additional classroom spaces for rehearsals.
B. Access to and use of simple furniture and set pieces, as well as minimal props and costume pieces.
C. A studio theatre performance space with seating for approximately l00 people.
D. Access to approximately 100 folding chairs and portable platforms for potential outdoor performances.

4. Course Content (Body of knowledge) -

A. Practically engage in the writing and creation of scripts and show content for production.
    1. Identify relevant, topical, contemporary themes
    2. Give a voice to issues and agendas relevant to the student artists' perception and sensitivities.
    3. Explore emphasis on multi-cultural perspectives and issues that shape and affect the immediate social climate.
B. Create a fully prepared, viable performance product for public audience as the culmination of the terms' process.
    1. Meet all deadlines for script submission
    2. Translate script concept to stage performance
    3. Participate in play development and necessary rewrites
    4. Work with actors and technical elements to communicate ideas and concepts
C. In addition to playwriting, each student of the class may work in multiple capacities on the production, including acting and production support.
    1. Meet all deadlines for rehearsal and performance needs.
    2. Manage a variety of responsibilities in contribution to the overall production
    3. Practice acquired or new skills

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

A. Students' work will be evaluated on the basis of quality and consistency of contribution to the ensemble process.
B. Students' fulfillment of assigned roles necessary to complete the cooperative task of producing the performance.
C. Students will be evaluated on strength of progressive growth and development during the term.
D. Several public performances of the production will be presented. The quality of written work and performances will be discussed individually with the student and during group critiques and evaluations.

7. Representative Text(s) -

Scripts generated by the class.

8. Disciplines -

Theatre Arts

9. Method of Instruction -

Lecture, Discussion, Cooperative learning exercises, Oral presentations, Laboratory.

10. Lab Content -

A. Cooperative development and rehearsal of student created plays.
B. Student individual responsibility in contributing to the coordination of the entire program into performance ready entity.
C. Scheduled technical rehearsals and public performance time.

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

A. Development and writing of viable, performable short plays
B. Group and individual reading of student written work

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FOOTHILL COLLEGE
Stand-Alone Course Approval Request

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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 #: THTR 49B

Course Title: PERFORMANCE PRODUCTION II

Credit Status:

X Credit course
_____ Noncredit course

Catalog Description:

Supervised performance participation in scheduled productions of the theatre arts department with a specific target towards text interpretation and commitment to characterization through live public performance. Culminates in a fully staged theatrical production.

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:

- 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):

X Transfer
_____ Workforce/CTE

_____ Basic Skills

Criteria B. Need

A course may only be granted Stand Alone Approval if there is demonstrable need 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.

This course supports the college service area by extending students tangible opportunities for student success to develop extended, practiced mastery of the subject area and is transferable towards degree credit at many institutions.

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: TOM GOUGH **Date:** 04/25/18

Division Curriculum Representative: Eric Kuehnl **Date:** 5/2/18

Date of Approval by Division Curriculum Committee: 5/2/18

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

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THTR 49B PERFORMANCE PRODUCTION II

Edit Course Outline

THTR 49B **PERFORMANCE PRODUCTION II** **Summer 2017**

1 hour lecture, 15 hours laboratory. **6 Units**

Total Contact Hours: 192 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 216 *(Total of All Lecture, Lab and Out of Class hours X 12)*

Lecture Hours: 1 **Lab Hours:** 15 **Weekly Out of Class Hours:** 2

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: AA Degree

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: UC/CSU **Validation:** 12/11/09;11/14/12;9/14

Division Dean Information -

Seat Count: 100 **Load Factor:** .262 **FOAP Code:** 114000143101100700

Instruction Office Information -

FSA Code: 1000 - DRAMA/THEATER ARTS

Distance Learning: no

Stand Alone Designation: no

Program Title:

Program TOPs Code:

Program Unique Code:

Content Review Date: 0000-00-00

Former ID:

Need/Justification -

This course is a restricted support course for the AA degree in Theatre Arts. It is also transferable UC/CSU credit.

1. Description -

Supervised performance participation in scheduled productions of the theatre arts department with a specific target towards text interpretation and commitment to characterization through live public performance. Culminates in a fully staged theatrical production.

Prerequisite: None

Co-requisite: None

Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Production-Performance family of activity courses; not open to students with credit in THTR 49X.

2. Course Objectives -

The student will be able to:

A. Recognize and apply premises of the play through study according to the identified work's historical content, style, genre, cultural and/or ethnic context.
    1. Apply the above perspectives towards analyzing dialogue for dramatic or humorous impact in live performance.
    2. Examine the rhythm, language structure and vocabulary of dialogue as they apply to psychological motivations of human behavioral choices.
B. Interpret and experiment with analysis of a character's presented and imagined life circumstances, processing them into specific performance interpretation through live public performance.

3. Special Facilities and/or Equipment -

A fully-equipped studio or standard proscenium theatre, dressing and make-up rooms, theatre scenic and costume shops, theatre box office, additional rehearsal space as required, basic audio-visual equipment.

4. Course Content (Body of knowledge) -

A. Study and assessment of the selected work of dramatic literature for performance (Lec)
    1. Determination of history, style, genre, cultural and/or ethnic context and the impact thereof upon performance choices for live public performance.(Lec)
    2. Rehearsed experimentation with multiple textual interpretations as they relate to nuanced variations in potential human response as determined by the assigned text. (Lab)
    3. Fulfillment of rehearsed experimentation of above premises into live public performance. (Lab)
B. Investigate influences in shaping the behavioral habits and patterns, motivations of character interpretation. (Lec)
    1. Assess and experiment through rehearsal the impact of environment, circumstances and background leading to confident character embodiment. (Lab)
    2. Fulfillment of rehearsed experimentation of above premises into live public performance. (Lab)

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

Students will:

A. demostrate proficiency by successfully completing designated class project/performance assignment for public presentation.
B. arrive at proficiency through detailed instructor feedback and evaluation at every phase of the production process.
C. arrive at proficiency through evaluation of written character studies, background research, peer and self-evaluation.

7. Representative Text(s) -

The selected play script and appropriate background reading as assigned by the instructor each quarter. There is no regular text as the text chosen each term will not repeat within a minimum of 10 years. The text is chosen based on the specific performance project.

8. Disciplines -

Theatre Arts

9. Method of Instruction -

A. Lecture: presentation of theory and foundational premises of prescribed performance material
B. Discussion: assessment and analysis of situations as they relate to rehearsal instructions and performance preparation
C. Cooperative learning exercises: ensemble performance projects
D. Oral presentations: solo performance exercises
E. Laboratory: rehearsal and preparation
F. Demonstration: peer and instructor modelling and self-assessment through performance presentations
G. Trial and error experimentation towards fulfillment of prescribed course project a full-length production for public performance.

10. Lab Content -

A. Participation and observation of rehearsal process for scheduled production.
B. Perform various, necessary production support functions including but not minted to, costume fittings, publicity, other preparation or technical support.
C. Plan, prepare and execute assigned facets of consistently performing in repetition a prescribed performance production in a public audience forum.
D. Fulfill the necessary group project requirements of public performance through personal preparation through warm-um, make-up application, costume preparation and other necessary elements.

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

A. Read and study assigned play scripts.
B. Research and study project related background materials.
C. Performance assignment memorization.
D. Read related project articles assigned by instructor.
E. Write self-reflection journal.

Ensure you're using the current version of this form by downloading a fresh copy from the CCC webpage!

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 #: THTR 49C

Course Title: PERFORMANCE PRODUCTION III

Credit Status:

X Credit course
_____ Noncredit course

Catalog Description:

Supervised participation as a performer in scheduled non-musical productions of the theatre arts department with a designated emphasis towards advanced vocal acumen and heightened physical embodiment through live public performance. Culminates in a fully staged theatrical production.

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:

- 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):

X Transfer
_____ Workforce/CTE

_____ Basic Skills

Criteria B. Need

A course may only be granted Stand Alone Approval if there is demonstrable need 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.

This course supports the college service area by extending students tangible opportunities for student success to develop extended, practiced mastery of the subject area and is transferable towards degree credit at many institutions.

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: TOM GOUGH **Date:** 04/25/18

Division Curriculum Representative: Eric Kuehnl **Date:** 5/2/18

Date of Approval by Division Curriculum Committee: 5/2/18

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

Current Course Outline Editor

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Fine Arts and Communication

THTR 49C PERFORMANCE PRODUCTION III

Edit Course Outline

THTR 49C **PERFORMANCE PRODUCTION III** **Summer 2017**

1 hour lecture, 15 hours laboratory. **6 Units**

Total Contact Hours: 192 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 216 *(Total of All Lecture, Lab and Out of Class hours X 12)*

Lecture Hours: 1 **Lab Hours:** 15 **Weekly Out of Class Hours:** 2

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: AA Degree

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: UC/CSU **Validation:** 02/8;12/9;11/14/12;9/14

Division Dean Information -

Seat Count: 100 **Load Factor:** .262 **FOAP Code:** 114000143101100700

Instruction Office Information -

FSA Code: 1000 - DRAMA/THEATER ARTS

Distance Learning: no

Stand Alone Designation: no

Program Title:

Program TOPs Code:

Program Unique Code:

Content Review Date: 0000-00-00

Former ID:

Need/Justification -

This course is a restricted support course fot the AA degree in Theatre Arts. It is also transferable for CSU/UC credit.

1. Description -

Supervised participation as a performer in scheduled non-musical productions of the theatre arts department with a designated emphasis towards advanced vocal acumen and heightened physical embodiment through live public performance. Culminates in a fully staged theatrical production.

Prerequisite: None

Co-requisite: None

Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Production-Performance family of activity courses; not open to students with credit in THTR 49Y.

2. Course Objectives -

The student will be able to:

A. Experience rehearsal and development of progressive, challenging vocal techniques to be included in the rehearsal and performance process.
B. Explore and develop a confident sense of actor character representation through introduction to and incorporation of a variety of physicalized embodiment approaches cemented through the added challenges of live public performance.

3. Special Facilities and/or Equipment -

A fully-equipped studio or standard proscenium theatre, dressing and make-up rooms, theatre scenic and costume shops, theatre box office, additional rehearsal space as required, basic audio-visual equipment.

4. Course Content (Body of knowledge) -

A. Guided and drilled steps towards joining effective vocal production with appropriate scriptual and performance need analysis (for live public performance) including many of, but not limited to, the following targets:
    1. Regional dialect analysis and incorporation from a variety of cultural and socio-economic backgrounds. (Lec & Lab)
    2. Clear and appropriate articulation. (Lec & Lab)
    3. Appropriate projection and breath support techniques. (Lec & Lab)
    4. Language demands and influence. (Lec & Lab)
B. Guided and drilled steps towards joining effective physical representation of dynamic character challenges with appropriate scriptual and performance need analysis (for live public performance) including many of, but not limited to, the following targets:
    1. Gesture analysis and employment. (Lec & Lab)
    2. Foundational posture assessment. (Lec & Lab)
    3. Body energy communication potential. (Lec & Lab)
    4. Physical representation of human emotional interpretation. (Lec & Lab)

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

Students will:

A. demostrate proficiency by successfully completing designated class project/performance assignment for public presentation.
B. arrive at proficiency through detailed instructor feedback and evaluation at every phase of the production process.
C. arrive at proficiency through evaluation of written character studies, background research, peer and self-evaluation.

7. Representative Text(s) -

The selected play script and appropriate background reading as assigned by the instructor each quarter. There is no regular text as the text chosen each term will not repeat within a minimum of 10 years. The text is chosen based on the specific performance project.

8. Disciplines -

Theatre Arts

9. Method of Instruction -

A. Lecture: presentation of theory and foundational premises of prescribed performance material
B. Discussion: assessment and analysis of situations as they relate to rehearsal instructions and performance preparation
C. Cooperative learning exercises: ensemble performance projects
D. Oral presentations: solo performance exercises
E. Laboratory: rehearsal and preparation
F. Demonstration: peer and instructor modelling and self-assessment through performance presentations
G. Trial and error experimentation towards fulfillment of prescribed course project a full-length production for public performance.

10. Lab Content -

A. Participation and observation of rehearsal process for scheduled production.
B. Perform various, necessary production support functions--including but not minted to, costume fittings, publicity, other preparation or technical support.
C. Plan, prepare and execute assigned facets of consistently performing in repetition a prescribed performance production in a public audience forum.
D. Fulfill the necessary group project requirements of public performance through personal preparation through warm-um, make-up application, costume preparation and other necessary elements.

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

A. Read and study assigned play scripts.
B. Research and study project related background materials.
C. Performance assignment memorization.
D. Read related project articles assigned by instructor.
E. Write self-reflection journal.

Ensure you're using the current version of this form by downloading a fresh copy from the CCC webpage!

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 #: THTR 49D

Course Title: PERFORMANCE PRODUCTION IV

Credit Status:

X Credit course
_____ Noncredit course

Catalog Description:

Supervised performance participation in scheduled productions of the theatre arts department with specific inclusion through a rehearsal into live public performance context of augmented, nuanced acting skill premises and enhanced script interpretation of cultural and socio-economic circumstances. Culminates in a fully staged theatrical production.

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:

- 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):

X Transfer

_____ Workforce/CTE
_____ Basic Skills

Criteria B. Need

A course may only be granted Stand Alone Approval if there is demonstrable need 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.

This course supports the college service area by extending students tangible opportunities for student success to develop extended, practiced mastery of the subject area and is transferable towards degree credit at many institutions.

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: TOM GOUGH **Date:** 04/25/18

Division Curriculum Representative: Eric Kuehnl **Date:** 5/2/18

Date of Approval by Division Curriculum Committee: 5/2/18

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

Current Course Outline Editor

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Fine Arts and Communication

THTR 49D PERFORMANCE PRODUCTION IV

Edit Course Outline

THTR 49D **PERFORMANCE PRODUCTION IV** **Summer 2017**

1 hour lecture, 15 hours laboratory. **6 Units**

Total Contact Hours: 192 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 216 *(Total of All Lecture, Lab and Out of Class hours X 12)*

Lecture Hours: 1 **Lab Hours:** 15 **Weekly Out of Class Hours:** 2

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: AA Degree

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: UC/CSU **Validation:** 11/14/12; 9/2014

Division Dean Information -

Seat Count: 100 **Load Factor:** .262 **FOAP Code:** 114000143101100700

Instruction Office Information -

FSA Code:

Distance Learning: no

Stand Alone Designation: no

Program Title:

Program TOPs Code:

Program Unique Code:

Content Review Date: 0000-00-00

Former ID:

Need/Justification -

This course is a restricted support course for AA degree in Theatre Arts. This course is also transferable CSU/UC

credit.

1. Description -

Supervised performance participation in scheduled productions of the theatre arts department with specific inclusion through a rehearsal into live public performance context of augmented, nuanced acting skill premises and enhanced script interpretation of cultural and socio-economic circumstances. Culminates in a fully staged theatrical production.

Prerequisite: None

Co-requisite: None

Advisory: Enrollment subject to audition and instructor assignment; this course is included in the Production-Performance family of activity courses.

2. Course Objectives -

The student will be able to:

A. Experience rehearsal and development of progressive sensibility towards analyzing and applying character representation through comprehensive investigative script analysis techniques, manifesting into performance.
B. Assess, explore and develop a confident sense of performance acumen through multiple interpretations of character through visualization, empathetic speculation, relationship and atmospheric circumstance analysis as dictated by script mandated circumstances through the added challenge of live public performance.

3. Special Facilities and/or Equipment -

A fully-equipped studio or standard proscenium theatre, dressing and make-up rooms, theatre scenic and costume shops, theatre box office, additional rehearsal space as required, basic audio-visual equipment, necessary production support staff.

4. Course Content (Body of knowledge) -

A. Detailed examination of psychological determiners, as dictated by script triggers, and multiple response considerations therein as applied to developmental performance representation. (Lec)
    1. Comprehensive assessment of motivating factors that promote action in human behaviors and how they apply to specific acting representation and response. (Lec)
    2. Fulfilling above described research and rehearsed experimentation into confident public performance (Lab).
B. Investigate influences in shaping the motivating forces present in varied social conditions of an individual as they impact interpretation of psycho-physical choices in acting through several of, but not limited to, the following advanced techniques: (Lab)
    1. Visualization (Lab)
    2. Speculative imagination (Lab)
    3. Role reversal/empathetic exploration (Lab)
    4. Subtext surfacing (Lab)
    5. Fulfillment of rehearsed experimentation of above premises into live public performance. (Lab)

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

A. Completion of designated class project/performance assignment for public presentation. assign
B. Detailed instructor feedback and evaluation at every phase of the production process.
C. Evaluation of written character studies, background research, peer and self-evaluation.

7. Representative Text(s) -

The selected play script and appropriate background reading as assigned by the instructor each quarter. There is no regular text as the text chosen each term will not repeat within a minimum of 10 years. The text is chosen based on the specific performance project.

8. Disciplines -

Theatre Arts

9. Method of Instruction -

A. Lecture presentation of theory and foundational premises of prescribed performance material
B. Discussion assessment and analysis of situations as they relate to rehearsal instructions and performance preparation
C. Cooperative learning exercises ensemble performance projects
D. Oral presentations solo performance exercises
E. Laboratory, rehearsal and preparation
F. Demonstration: peer and instructor modelling and self-assessment through performance presentations
G. Trial and error experimentation towards fulfillment of prescribed course project a full-length production for public performance.

10. Lab Content -

A. Participation and observation of rehearsal process for scheduled production.
B. Perform various, necessary production support functions--including but not minted to, costume fittings, publicity, other preparation or technical support.
C. Plan, prepare and execute assigned facets of consistently performing in repetition a prescribed performance production in a public audience forum.
D. Fulfill the necessary group project requirements of public performance through personal preparation through warm-um, make-up application, costume preparation and other necessary elements.

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

A. Read and study assigned play scripts.
B. Research and study project related background materials.
C. Performance assignment memorization.
D. Read related project articles assigned by instructor.
E. Write self-reflection journal.

FOOTHILL COLLEGE
Credit Program Narrative
Certificate of Achievement in Makerspace Coordinator

Item 1. Program Goals and Objectives

The goal of the Certificate of Achievement in Makerspace Coordinator is to prepare individuals to create, manage, or become employed in makerspaces or fabrication laboratories in school, community center, and library environments. Current libraries, community centers, and schools are in dire need of trained, qualified adults to supervise, maintain, and create makerspaces or fabrication laboratories to build 21st century skills of critical thinking, problem-solving, creativity and imagination, and collaboration and teamwork.

Program Learning Outcomes:

- Upon completion of the program, the student will have acquired the necessary basic skills to create and manage a makerspace or fabrication lab in schools, community centers, and library environments.
- Upon completion of the program, the student will be able to demonstrate appropriate critical thinking and problem-solving skills, creative skills, and collaborative and teamwork skills to provide assistance in a maker or fabrication environment.

Item 2. Catalog Description

The Certificate of Achievement in Makerspace Coordinator is designed for people who are seeking employment in fabrication laboratories and makerspaces within community centers, libraries, and education. The program provides 18 units of instruction and support for building models and prototypes, strategies to spark innovation and invention, and creative problem-solving and collaboration. The program includes application and strategies with the foundational concepts and processes for fabrication and design, including the familiarization and use of makerspace and fabrication laboratory tools.

Prerequisite Skills: Basic skills using standard computer systems and internet-based technologies.

Item 3. Program Requirements

Requirements	Course #	Name	Units	Sequence
Core Courses (15 units)	LINC 58A	E-Portfolios	1	Year 1, Spring
	LINC 73H	Adobe Illustrator Overview	1	Year 1, Winter
	LINC 75A	Introduction to Instructional Design & Technology	3	Year 1, Fall
	LINC 77A	Design Thinking Process	2	Year 1, Fall
	LINC 77B	Design Thinking & Tinkering	2	Year 1, Winter
	LINC 78A	Computational Thinking for Educators	2	Year 1, Winter
	LINC 78C	Project Based Technology Projects	2	Year 1, Spring
	LINC 84A	3-D Design Concepts	2	Year 1, Spring
Restricted Electives (3 units)	LINC 57	Designing Learner-Centered Instruction	1	Year 1, Wtr/Spr
	LINC 59	Integrating 21st Century Skills into Instruction	2	Year 1, Wtr/Spr

	LINC 77C	Design Thinking for Teachers	2	Year 1, Winter
	LINC 77D	Design Thinking Challenges	2	Year 1, Winter
	LINC 78B	Block Based Coding Concepts	2	Year 1, Wtr/Spr
	LINC 80	Multimedia Overview	1	Year 1, Wtr/Spr

TOTAL UNITS: 18 units

Proposed Sequence:
Year 1, Fall = 5-7 units (5 core + 1-2 elective units)
Year 1, Winter = 5-7 units (5 core + 1-2 elective units)
Year 1, Spring = 5-7 units (5 core + 1-2 elective units)
TOTAL UNITS: 18 units

Item 4. Master Planning

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. There is currently a high demand for qualified individuals who can maintain a makerspace or fabrication lab in community centers, libraries, and/or educational environments. This innovative program will allow schools to hire individuals as classified personnel to assist faculty with student learning and exploration in makerspaces. It also allows further training for teachers and non-traditional educators to build their skillset for giving students 21st century, future-ready skills.

Item 5. Enrollment and Completer Projections

Due to the high demand for this job in educational environments, we foresee that a minimum of 20 students will complete the Certificate of Achievement in Makerspace Coordinator after the initial year. We have already begun training students in this area with a Veterans Maker Bootcamp (began February 26, 2018) who will take LINC 75A and ENGR 62. Because our 3-D Design & Fabrication course does not become active until July 1, 2018, we have partnered with the PSME division to complete 3-D design coursework in the interim. The Veterans Maker Bootcamp will allow local Veterans to learn basic makerspace skills and begin internships in makerspaces or fabrication labs within local libraries, community centers, and schools. We foresee that we will create rolling cohort groups to build this program and ensure the courses are filled. We also think that the flexibility in the scheduling of the core and elective coursework throughout the year will allow more participants to join these rolling cohorts throughout the year, increasing the participation in this program. Because at least 50% of the courses can be taught completely online, it is expected that state-wide participation over the next five years will significantly increase the number of students who complete this certificate.

		2015-16		2016-17	
Course #	**Course Title**	**Annual Sections**	**Annual Enrollment**	**Annual Sections**	**Annual Enrollment**
LINC 57	Designing Learner-Centered Instruction	1	42	2	65
LINC 58A	E-Portfolios	2	29	2	62
LINC 59	Integrating 21st Century Skills into Instruction	2	29	2	62

LINC 73H	Adobe Illustrator Overview	4	63	3	64
LINC 75A	Introduction to Instructional Design & Technology	N/A	N/A	N/A	N/A
LINC 77A	Design Thinking Process	N/A	N/A	N/A	N/A
LINC 77B	Design Thinking & Tinkering	N/A	N/A	N/A	N/A
LINC 77C	Design Thinking for Teachers	N/A	N/A	N/A	N/A
LINC 77D	Design Thinking Challenges	N/A	N/A	N/A	N/A
LINC 78A	Computational Thinking for Educators	N/A	N/A	N/A	N/A
LINC 78B	Block Based Coding Concepts	N/A	N/A	N/A	N/A
LINC 78C	Project Based Technology Projects	N/A	N/A	N/A	N/A
LINC 80	Multimedia Overview	1	17	1	21
LINC 84A	3-D Design Concepts	N/A	N/A	N/A	N/A

Item 6. Place of Program in Curriculum/Similar Programs

Foothill College currently has a Makerspace at the Krause Center for Innovation. The Makerspace opened in December, 2017, and it is open to Foothill students, Foothill faculty, and local community members. There is no other program that is similar to the Certificate of Achievement in Makerspace Coordinator, and courses that will become available July 1, 2018, will support and guide students to this certificate.

Item 7. Similar Programs at Other Colleges in Service Area

Sonoma State University has the only other makerspace certificate available in the state. The Sonoma State program is through their School of Extended and International Education. The program offers a 50-hour requirement of "mix and match" courses. According to Sonoma State's program information page (web.sonoma.edu/exed/maker-certificate/), their certificate program will enable students to:

- Understand the core values and principles of Making
- Learn pedagogical practices for empowering learners to explore Making and a Maker mindset in a learning environment
- Design an action plan for implementing Maker activities in a learning environment
- Begin to consider was to integrate Making in the classroom
- Begin to align Maker projects with CCSS and NGSS

The Sonoma State University certificate program appears to only introduce the concepts of classroom makerspaces. The Foothill College Certificate of Achievement in Makerspace Coordinator incorporates design, pedagogy, and content into its certificate to allow a more whole approach to training and mentoring Makerspace Coordinators for jobs in schools, community centers, and libraries.

Makerspace Coordinator Occupations
Labor Market Information Report

Prepared by the San Francisco Bay Center of Excellence
for Labor Market Research
March 2018

Recommendation

The LMI application for this occupational cluster notes that "the goal of the Makerspace Coordinator Certificate is to prepare individuals to create, manage, or become employed in makerspaces or fabrication laboratories in school, community center, and library environments. Current libraries, community centers, and schools are in dire need of trained, qualified adults to supervise, maintain, and create makerspaces or fabrication laboratories to build 21st century skills of critical thinking, problem-solving, creativity and imagination, and collaboration and teamwork."

Because "Makerspaces" are an emerging program area at community colleges, at this time it is difficult to determine the actual demand for this position, as well as the number of students who are being trained to fill Makerspace Coordinator positions, from our current data sources.

Based on available data for the SOC codes selected that do not require a Bachelor's degree and teaching credential, there are 848 annual openings in the Bay Region and 314 in Silicon Valley. Because at least two and perhaps three of the occupations selected (CTE Teachers, Middle School; CTE Teachers, Secondary School; and Education, Training and Library Workers, All Other) require a Bachelor's degree and a teaching credential that can only be granted by a four year institution, the demand/annual openings for these three occupations have been excluded from the calculation for demand.

However, since the program appears to target incumbent workers employed as teachers and library workers, then the number of currently employed workers in the occupational cluster selected should also be considered. In 2017 there were over 10,900 workers employed in the region and about 3,500 in the Silicon Valley sub-region.

Since Makerspaces are an emerging program area, it is difficult to do a traditional labor market analysis. Typically, the number of postsecondary awards earned or the number of students who earned awards would be used to gauge supply. However, the TOP code selected - Other Education (TOP 0899.00) has very little data and should only be used when a TOP code does not already exist for the program area. COE would recommend that Foothill consider Educational Technology (TOP code 0860.00) for the proposed new program if it is created. The description in the TOP manual for Educational Technology is as follows: "Principles and techniques for use of technology to improve learning. Includes computer software and resources, multimedia enhancements, audio and video skills, and other technology strategies that assist teachers to enhance the delivery of curriculum."

As stated above, there is insufficient student outcomes data in Launchboard for Other Education (TOP 0899.00) in the Bay Region. It is recommended that the student outcomes data be reviewed for students taking courses on Educational Technology as provided in this report in the "Student Outcomes" section. Please be aware that like the TOP code selected in the application (Other Education), Educational Technology (TOP 0860.00) may also include programs that are not necessarily training for the occupational cluster selected for this report.

Introduction

This report profiles Makerspace Coordinator occupations in the 12 county Bay region and the Silicon Valley sub-region (Santa Clara County) for a proposed new Makerspace Coordinator Certificate at Foothill College.

- **Career/Technical Education Teachers, Middle School (SOC 25-2023)** Teach occupational, career and technical, or vocational subjects in public or private schools at the middle, intermediate, or junior high level, which falls between elementary and senior high school as defined by applicable laws and regulations.

Entry-Level Educational Requirement: Bachelor's Degree
Training Requirement: None
Percentage of Community College Award Holders or Some Postsecondary Coursework: 5%

- **Career/Technical Education Teachers, Secondary School (SOC 25-2032)** Teach occupational, career and technical, or vocational subjects at the secondary school level in public or private schools.
  Entry-Level Educational Requirement: Bachelor's Degree
  Training Requirement: None
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 5%

- **Education, Training, and Library Workers, All Other (SOC 25-9099)**: All education, training, and library workers not listed separately.
  Entry-Level Educational Requirement: Bachelor's Degree
  Training Requirement: None
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 12%

- **Assemblers and Fabricators, All Other (SOC 51-2099)**: All assemblers and fabricators not listed separately.
  Entry-Level Educational Requirement: High school diploma or equivalent
  Training Requirement: Moderate-term on-the-job training
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 29%

- **Computer-Controlled Machine Tool Operators, Metal and Plastic (SOC 51-4011)**: Operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.
  Entry-Level Educational Requirement: High school diploma or equivalent
  Training Requirement: Moderate-term on-the-job training
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 44%

Occupational Demand

Table 1. Employment Outlook for Makerspace Coordinator Occupations in Bay Region

Occupation	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	5-year Open-ings	Annual Open-ings	10% Hrly Wage	Median Hrly Wage
CTE Teachers, Middle School	209	234	25	12%	102	20	$22.11	$32.81
CTE Teachers, Secondary School	958	1,050	92	10%	433	87	$21.74	$31.64
Education, Training, and Library Workers, All Other	3,495	3,725	230	7%	1,825	365	$11.81	$22.00
Assemblers & Fabricators, All Other	4,457	4,807	350	8%	3,020	604	$10.45	$16.66
Computer-Controlled Machine Tool Operators, Metal and Plastic	1,824	2,077	253	14%	1,218	244	$11.72	$19.20
Total	**10,943**	**11,894**	**951**	**9%**	**6,597**	**1,319**	**$12.31**	**$20.41**

Source: EMSI 2018.1
Bay Region includes Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma Counties

Table 2. Employment Outlook for Makerspace Coordinator Occupations in Silicon Valley Sub-Region

Occupation	2017 Jobs	2022 Jobs	5-Yr Change	5-Yr % Change	5-year Open-ings	Annual Open-ings	10% Hrly Wage	Median Hrly Wage
CTE Teachers, Middle School	75	81	6	8%	33	7	$23.36	$35.78
CTE Teachers, Secondary School	306	319	13	4%	120	24	$24.90	$37.27
Education, Training, and Library Workers, All Other	583	646	63	11%	333	67	$12.75	$24.94
Assemblers & Fabricators, All Other	1,752	1,803	51	3%	1,075	215	$10.92	$18.22
Computer-Controlled Machine Tool Operators, Metal and Plastic	783	876	93	12%	496	99	$13.32	$20.88
Total	**3,499**	**3,725**	**226**	**6%**	**2,056**	**411**	**$13.25**	**$21.97**

Source: EMSI 2018.1
Silicon Valley Sub-Region includes Santa Clara County

Job Postings in Bay Region and Silicon Valley Sub-Region

Table 3. Number of Job Postings by Occupation for latest 12 months (February 2017 – January 2018)

Occupation	Bay Region	Silicon Valley
Computer-Controlled Machine Tool Operators, Metal and Plastic (51-4011.00)	153	50
Career/Technical Education Teachers, Middle School (25-2023.00)	63	21
Career/Technical Education Teachers, Secondary School (25-2032.00)	37	10
Assemblers and Fabricators, All Other (51-2099.00)	25	6
Education, Training, and Library Workers, All Other (25-9099.00)	8	0
Total	**286**	**87**

Source: Burning Glass

Table 4. Top Job Titles for Makerspace Coordinator Occupations for latest 12 months (February 2017 – January 2018)

Common Title	Bay	Silicon Valley
CNC Operator	76	19
CNC Machine Operator	18	13
Senior Sdet	16	6
Cnc Service Engineer	9	1

Common Title	Bay	Silicon Valley
CNC Lathe Operator	6	2
Machine Operator	6	0
Experience With Key	5	5
Furniture Installer	5	3

Source: Burning Glass

Industry Concentration

Table 5. Industries hiring Makerspace Coordinator Workers in Bay Region

Industry – 4 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2017)	Jobs in Industry (2022)	% Change (2017-22)	% in Industry (2012)
Elementary and Secondary Schools (Local Government) (903611)	1,770	1,930	9%	16.2%
Temporary Help Services (561320)	1,547	1,760	14%	14.1%
Colleges, Universities & Professional Schools (State Government) (902612)	670	665	(1%)	6.1%
Machine Shops (332710)	541	625	16%	4.9%
Educational Support Services (611710)	361	413	14%	3.3%
Colleges, Universities, and Professional Schools (611310)	340	371	9%	3.1%
Colleges, Universities & Professional Schools (Local Government) (903612)	318	327	3%	2.9%
Semiconductor and Related Device Manufacturing (334413)	226	228	1%	2.1%
Elementary and Secondary Schools (611110)	224	249	11%	2.0%
Semiconductor Machinery Manufacturing (333242)	209	235	12%	1.9%
Federal Government, Civilian, Excluding Postal Service (901199)	169	164	(3%)	1.5%
Automobile Manufacturing (336111)	120	155	29%	1.1%
Surgical and Medical Instrument Manufacturing (339112)	115	119	3%	1.1%
Sheet Metal Work Manufacturing (332322)	113	134	19%	1.0%

Source: EMSI 2017.4

Table 6. Top Employers Posting Makerspace Coordinator Occupations in Bay Region and Silicon Valley for latest 12 months (February 2017 – January 2018)

Note: 57% of records have been excluded because they do not include an employer. As a result, the chart below may not be representative of the full sample.

Employer	Bay	Silicon Valley	Employer	Bay	Silicon Valley
Ametek Incorporated	6	0	Docusign Incorporated	3	0
Machine Zone	5	5	Jones Lang Lasalle Inc	3	2
Alameda Unified School District	4	0	Piner Olivet Union School District	3	0
Benchmark Electronics	4	0	Sprint Corporation	3	0
Apple Inc.	3	3	Amazon.com	2	2

Source: Burning Glass

Educational Supply

On the supply side, the TOP code selected is TOP 0899.00 - Other Education. There is only one college in the Bay Region issuing awards on this TOP code which is Ohlone, with two certificates awarded annually.

On TOP 0860.00 – Educational Technology, there is only one college in the Bay Region issuing certificates. College of Alameda in the East Bay issued five certificates on average for 2014-17.

Table 7. Award on TOP 0860.00 Educational Technology in Bay the Region

College	Sub-Region	CC Headcount	Associate Degrees	Certificates or Other Credit Awards	Total Awards
Alameda	East Bay	on another TOP	0	5	5
Evergreen	Silicon Valley	114	0	0	0
Foothill	Silicon Valley	701	0	0	0
Merritt	East Bay	125	0	0	0
Total Bay Region		**953**	**0**	**5**	**5**
Total Silicon Valley Sub-Region		**815**	**0**	**0**	**0**

Source: IPEDS, Data Mart and Launchboard

NOTE: Headcount of students who took one or more courses is for 2016-17. The annual average for Associate Degrees and Certificates is 2014-17.

Gap Analysis

As stated above in the Recommendation section, a traditional labor market gap analysis is difficult to do for the cluster of occupations and the TOP code selected. There are an ample number of currently employed workers in the occupational cluster in 2017 (nearly 11,000 in the Bay region and 3,500 in the Silicon Valley sub-region) as well as an ample number of annual openings (848 in the Bay region and 314 in the Silicon Valley sub-region). Because "Makerspaces" are an emerging program area at community colleges, at this time it is difficult to determine the number of students who are being trained to fill a Makerspace Coordinator position, as well as the actual demand for this position, from our current data sources.

Student Outcomes

Student Outcomes data from Launchboard is not available for students who took courses on TOP 0899.00 - Other Education for the Bay Region for the four outcomes metrics listed in the table. However, there is data available for these metrics on TOP 0860.00 - Educational Technology in the Bay Region as shown in the table below. Merritt College is the top performing program on this TOP code in the state for the four student outcomes metrics shown.

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0860.00 – Educational Technology in 2015-16

2015-16	Bay Region (All CTE Programs)	Foothill (All CTE Programs)	State (0860.00)	Bay Region (0860.00)	Foothill (0860.00)	Top College in Bay Region (086.00) Educational Technology	
% Employed Four Quarters After Exit	74%	77%	82%	81%	77%	Merritt	92%
Median Earnings Two Quarters After Exit	$10,310	$15,335	not available in LB when report was run	$22,815	$20,545	Merritt	$25,090

Median % Change in Earnings	46%	77%	not available in LB when report was run	30%	25%	Merritt	35%
% of Students Earning a Living Wage	63%	76%	83%	88%	86%	Merritt	93%

Source: Launchboard (version available on 3/2/18)

Skills, Certificates and Education

Table 9. Top Skills for Makerspace Coordinator Occupations in Bay Region (February 2017 – January 2018)

Skill	Postings	Skill	Postings	Skill	Postings
Computer Numerical Control (CNC)	130	Micrometers	28	G-Code	17
Machining	68	Machine Operation	27	Siemens Nixdorf Hardware	17
Inspection	37	JAVA	26	Computerized Numerical Control Lathes	16
Microsoft Excel	36	Machine Tools	23	Microsoft Word	16
Lathes	31	Machinery	22	C++	15
Repair	31	CNC Machine	19	LINUX	14
Scheduling	29	Forklift Operation	18	Budgeting	13
Calipers	28	Python	18	Inventory Management	13

Source: Burning Glass

Table 10. Education Requirements for Makerspace Coordinator Occupations in Bay Region

Note: 51% of records have been excluded because they do not include a degree level. As a result, the chart below may not be representative of the full sample.

Education (minimum advertised)	Latest 12 Mos. Postings
High school or vocational training	66 (47%)
Associate Degree	14 (10%
Bachelor's Degree or Higher	60 (43%)

Source: Burning Glass

Methodology

Occupations for this report were identified by use of skills listed in O*Net descriptions and job descriptions in Burning Glass. Labor demand data is sourced from Economic Modeling Specialists International (EMSI) occupation data and Burning Glass job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CTE Launchboard and CCCCO Data Mart.

Sources

O*Net Online

Labor Insight/Jobs (Burning Glass)

Economic Modeling Specialists International (EMSI)

CTE LaunchBoard www.calpassplus.org/Launchboard/

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

Living Insight Center for Community Economic Development

Chancellor's Office MIS system

Contacts

For more information, please contact:

- Karen Beltramo, Data Research Analyst, for Bay Area Community College Consortium (BACCC) and Centers of Excellence (CoE), karen@baccc.net or (831) 332-1253
- John Carrese, Director, San Francisco Bay Center of Excellence for Labor Market Research, jcarrese@ccsf.edu or (415) 452-5529

To: CCC
From: PSME CC
Date: 5/31/18

The PSME curriculum committee respectively requests that MATH 180 be added to the list of courses meeting the minimum proficiency in mathematics, for the AA/AS degree.

Given below is the Title V requirement for mathematics courses applicable to the AA/AS degree:

> Effective for all students admitted to a community college for the Fall 2009 term or any term thereafter, competence in mathematics shall be demonstrated by obtaining a satisfactory grade in a mathematics course at the level of the course typically known as Intermediate Algebra (either Intermediate Algebra or another mathematics course at the same level, with the same rigor and with Elementary Algebra as a prerequisite, approved locally) or by completing an assessment conducted pursuant to subchapter 6 of this chapter (commencing with section 55500) and achieving a score determined to be comparable to satisfactory completion of the specified mathematics course. Satisfactory completion of a mathematics course at the level of Intermediate Algebra shall satisfy both this competency requirement and the coursework requirement set forth in subdivision (b)(1)(D)(ii) of this section.

MATH 180 satisfies this requirement due to the following objectives in the COR:

C. Read, comprehend, and discuss quantitative situations drawn from the fields of personal finance, health and wellness, environmental technologies, and civic engagement.
D. Demonstrate an understanding of mathematics by writing complete and correct responses to questions.
E. Apply proportional reasoning, analyze doubling times, and apply exponential and linear modeling to investigate environmental and social issues and compare issues/measures from different times or places.
F. Use estimation and investigation of multiple representations of numbers and functions to assess claims from a variety of fields, such as environmental, personal finance, health and wellness.
G. Use percents, estimation, and modeling to explore personal finance options, such as how credit cards work and how taxes are computed.
H. Use graphs to describe, interpret, synthesize, and predict information.
I. Calculate, compare, and interpret measures of center and make decisions.
J. Use dimensional analysis to solve complex problems with multiple pieces of information and steps.
K. Apply algebraic and proportional reasoning techniques to analyze multivariable relationships, such as "Stopping Distance of a Car" or "Blood Alcohol Content," and investigate how the formula was developed.
L. Identify, create and use models to predict values and solve problems in contextualized, culturally relevant settings.

If approved, MATH 180 will be added to the minimum proficiency list upon its approval in the CCCCO system (estimated to become effective fall 2018 quarter). The updated list will be: MATH 17 or 105 or 108 or 180.

Submissions Course Outline Editor

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Physical Sciences, Mathematics & Engineering

MATH 180 QUANTITATIVE REASONING

Edit Course Outline

MATH 180 **QUANTITATIVE REASONING** **Fall 2018**

4 hours lecture, 3 hours laboratory. **5 Units**

Total Contact Hours: 84 **(Total of All Lecture and Lab hours X 12)**

Total Student Learning Hours: 180 **(Total of All Lecture, Lab and Out of Class hours X 12)**

Lecture Hours: 4 **Lab Hours:** 3 **Weekly Out of Class Hours:** 8

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: AA Degree, AS Degree

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: **Validation:** 5/8/18

Division Dean Information -

Seat Count: 35 **Load Factor:** .156 **FOAP Code:** 114000125051170100

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:

Need/Justification -

Because of AB 705, CCC have until Fall 2019 to design and fully implement a program which provides "reasonable probability that a student will complete a college level math class within 1 year." With the adoption of Common Core in K-12, there has been acknowledgement that intermediate algebra would no longer be the model prerequisite by which we define transfer level mathematics coursework. Many programs and classes have historically required intermediate algebra as a prerequisite or requirement for the program. We want to design a class that solidly develops the outlooks and strategies and habits of mind that transfer more readily to other coursework and life. We want to design a class in which students come to see and use quantitative reasoning as a tool for understanding and answering questions about our world--physical, financial, social, political, environmental. We want to design a class that allows everyone to develop their mathematical thinking skills. We are not alone. Faculty across the country have been engaged in this endeavor through the Quantway and Statway projects for nearly a decade now, under the auspices of the Carnegie Foundation. These collaboratively developed and improved materials have evolved through backwards design, starting with 21st Century Learning Outcomes in the context of mathematics. There are years of implementation and improvement, based on extensive back-end data collection. And we have several faculty members who have engaged in considerable professional development in this area. This course is our local attempt to leverage all of this work in our effort to support students in their development and achievement of their goals, in the spirit of AB 705.

1. Description -

Students will be able to apply mathematical reasoning in their personal, professional, and academic lives, to investigate new contexts, develop and propose possible solutions, discuss and analyze proposed plans, and make decisions. Students will learn to value the collaborative process of explaining, investigating, comparing and assessing a variety of perspectives and approaches. Through immersion in contextualized lessons, students will practice quantitative thinking as they build skill in communication, critical and creative thinking, and computation. They will grow their knowledge and understanding of themselves, each other, and the world through the study of culturally relevant contexts, such as personal finance, health and wellness, membership in society, and the environment.

Prerequisite: None

Co-requisite: None

Advisory: None

2. Course Objectives -

The student will be able to:

A. Plan, implement, and assess their work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.
B. Collaborate to collect, assemble, discuss, and present culturally-relevant information using team member knowledge, reading strategies, and the internet.
C. Read, comprehend, and discuss quantitative situations drawn from the fields of personal finance, health and wellness, environmental technologies, and civic engagement.
D. Demonstrate an understanding of mathematics by writing complete and correct responses to questions.
E. Apply proportional reasoning, analyze doubling times, and apply exponential and linear modeling to investigate environmental and social issues and compare issues/measures from different times or places.
F. Use estimation and investigation of multiple representations of numbers and functions to assess claims from a variety of fields, such as environmental, personal finance, health and wellness.
G. Use percents, estimation, and modeling to explore personal finance options, such as how credit cards work and how taxes are computed.
H. Use graphs to describe, interpret, synthesize, and predict information.
I. Calculate, compare, and interpret measures of center and make decisions.
J. Use dimensional analysis to solve complex problems with multiple pieces of information and steps.
K. Apply algebraic and proportional reasoning techniques to analyze multivariable relationships, such as "Stopping Distance of a Car" or "Blood Alcohol Content," and investigate how the formula was developed.
L. Identify, create and use models to predict values and solve problems in contextualized, culturally relevant settings.

3. Special Facilities and/or Equipment -

A. Scientific calculator.
B. Computer with internet access.

4. Course Content (Body of knowledge) -

A. Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.
    1. Workload analysis
        a. School/study time calculation
        b. Plotting weekly calendar

2. Math support resources
    a. Classmates
    b. Teacher and tutors
    c. Foundations Lab
    d. Counseling
    e. Student Resource Center
3. Learning opportunities in math
    a. Productive struggle
    b. Deliberate practice
    c. Explicit connections
    d. Collaboration and teamwork
4. Mathematical habits of mind
    a. Interpreting contextualize problems
    b. Predicting solutions
    c. Analyzing different ideas
    d. Revising thinking and solutions

B. Collaborate to collect, assemble, discuss, and present culturally-relevant information using team member knowledge, reading strategies, and the internet.
1. Mathematical identity development
2. Cultural capital recognition and development
3. Quantitative communication skill development

C. Read, comprehend, and discuss quantitative situations drawn from the fields of personal finance, health and wellness, environmental technologies, and civic engagement.
1. Reading comprehension strategies
    a. Comprehension and Synthesis Chart
        1. Qualitative information and vocabulary
        2. Quantitative information
        3. Plan of action
    b. Reading apprenticeship routines, such as:
        1. "Think Aloud" or
        2. "Talk to the Text"

D. Demonstrate an understanding of mathematics by writing complete and correct responses to questions.
1. Simple and complete
2. Specific
3. Stand-alone

E. Apply proportional reasoning, analyze doubling times, and apply exponential and linear modeling to investigate environmental and social issues and compare issues/measures from different times or places.
1. Culturally relevant issues, such as:
    a. Population
        1. Population growth
        2. Population density
    b. Allocation of resources
        1. Natural
        2. Human
        3. Per capita measures
2. Absolute change vs. Relative change

F. Use estimation and investigation of multiple representations of numbers and functions to assess claims from a variety of fields, such as environmental, personal finance, health and wellness.
1. Large numbers
2. Mental math
3. Scientific notation
4. Tables, graphs, formulas, contexts

G. Use percents, estimation, and modeling to explore personal finance options, such as:
1. Credit cards
2. Tax forms
3. Savings plans
    a. Simple interest
    b. Compound interest
4. Consumer Price Index
    a. Base year
    b. Comparisons over time
    c. Purchasing power
    d. Interpretations
    e. Calculations
5. Cost of Living Index
    a. Buying power
    b. Comparisons across location

H. Use graphs to describe, interpret, synthesize, and predict information.
1. Pie chart
2. Line graph

3. Bar chart
4. Pictographs
5. Scatterplots
6. Misleading graphs

I. Calculate, compare, and interpret measures of center and make decisions.
   1. Mean
   2. Median
   3. Mode
   4. Using formulas in a spreadsheet

J. Use dimensional analysis to solve complex problems with multiple pieces of information and steps.
   1. Units
      a. Conversions
      b. Equivalencies
   2. Application to real life problems, such as medical dosages
   3. Equations and proportions

K. Apply algebraic and proportional reasoning techniques to analyze multivariable relationships, such as "Stopping Distance of a Car" or "Blood Alcohol Content," and investigate how the formula was developed.
   1. Variables
      a. Subscripts
   2. Order of operations
   3. Units and dimensional analysis
   4. Role of each variable
   5. Relationship between two variables in a multi-variable formula
   6. Solving for an unknown variable or quantity
      a. Using square roots to solve an equation
   7. Inequalities
   8. Evaluating formulas
   9. Decision making using formulas

L. Identify, create and use models to predict values and solve problems in contextualized, culturally relevant settings.
   1. Connections between four representations of a function
      a. Contextual situations
      b. Table
      c. Graph
      d. Equation
   2. Units
   3. Vertical intercept
      a. Connection to graph
      b. Connection to equation
   4. Horizontal intercept
      a. Connection to graph
      b. Connection to equation
   5. Limitations of models based on data
      a. Interpolation
      b. Extrapolation
   6. Linear models
      a. Rate of change as slope
      b. Interpretations of slopes and intercepts
   7. Exponential models
      a. Percentage change
      b. Pattern recognition
      c. Growth
      d. Decay
      e. Financial models

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

The student will demonstrate proficiency by participating in a variety of assessments, such as:

A. Ongoing, formative classroom assessments
B. Participation in group and class discussions
C. Checkpoint quizzes
D. Preparatory assignments
E. Homework
F. Lab work
G. Module tests
H. Final exam

I. Projects
J. Presentations
K. Portfolio development

7. Representative Text(s) -

Carnegie Foundation for the Advancement of Teaching. Quantway 1. XanEdu, 2018.

8. Disciplines -

Mathematics

9. Method of Instruction -

A. Students will be engaged in small group discussion of contextualized culturally relevant problems followed by wrap-up discussions of group findings and important mathematical ideas related to contextualized problems.
B. Students will reflect on their thinking and on problem ideas individually and in pairs.
C. Students will address mathematical sticking points through discussion and short, targeted, small group or whole class lectures.
D. Students will experience short lectures and discussion of aspects of self-regulated learning and aspects of self-efficacy: as a mathematical thinker, as a student, and as a member of society.
E. Guest lectures, tours, and laboratory activities will support development of mathematical identity and self-efficacy.
F. Students will engage in in-class readings of contextualized, culturally relevant problems and participate in short, targeted lectures on reading comprehension strategies which they will then apply.
G. Students will make group presentations of minor or major projects and problems followed by in-class discussion and evaluation.

10. Lab Content -

Students will plan, implement, and assess their work cycles, at the course level, to develop self-efficacy in their math studies through the practice of self-regulated learning.

A. Learning opportunities and classroom norms
    1. Productive struggle
    2. Deliberate practice: Extending what we learn
    3. Explicit connections and wrap-up
    4. Collaboration and teamwork: Some agreements
B. Workload analysis
    1. Collecting data
    2. Plotting time commitments
    3. Analyzing resources
    4. Tools and technologies
C. Making a plan: Calendars and logs
    1. Exploration: Map of current commitments
    2. Consultation: Reviewing recommendations/expert advice/Carnegie Units
    3. Reflect/revise plan
D. Building a network for mathematical success: Academic
    1. In the classroom (building peer groups)
    2. Beyond the classroom (office hours, interview instructors)
    3. Tutors
    4. Labs and library
    5. Counselors
E. Financial planning
    1. Costs (collecting data and predicting expenses)
    2. Sources of support: Financial Aid
    3. The basics of credit cards
    4. Basic budget development
F. Building a network for mathematical success: Financial (in consultation with campus resources)
    1. Financial Aid
    2. EOPS
    3. Scholarships and campus jobs
G. Building success habits for learning math
    1. Foundations Lab (developing skills for exploratory learning and practice)
    2. Tutor relationships (what the tutors recommend, habits for successful students)
H. Building a network for mathematical success: Registration (can be in consultation with DRC, Admissions and Records, Counselors)
    1. Evaluating math courses to determine next quarter options

2. Drafting timelines for individual enrollment dates

I. Resources in case you forget the math
   1. On campus
   2. Online

J. Leveraging student success factors to support mathematical learning
   1. Connected, nurtured, valued
      a. Looking back at the quarter's math experiences
      b. Strategies for success with the next math experience

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

A. Deliberate practice: Daily homework designed to extend concept and skill development.
B. Preparatory homework designed to prepare students for the next lesson.
C. Module reviews designed to prepare students for module quizzes and exams.
D. Online module checkpoint quizzes.
E. Portfolio development.
F. Lesson preview reading.

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Physical Sciences, Mathematics & Engineering

MATH 180 QUANTITATIVE REASONING

Edit Course Outline

MATH 180 **QUANTITATIVE REASONING** **Fall 2018**

4 hours lecture, 3 hours laboratory. **5 Units**

Total Contact Hours: 84 *(Total of All Lecture and Lab hours X 12)*

Total Student Learning Hours: 180 *(Total of All Lecture, Lab and Out of Class hours X 12)*

Lecture Hours: 4 **Lab Hours:** 3 **Weekly Out of Class Hours:** 8

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: AA Degree, AS Degree

Foothill GE Status: Non-GE

Articulation Office Information -

C.I.D. Notation:

Transferability: **Validation:** 5/8/18

Division Dean Information -

Seat Count: 35 **Load Factor:** .156 **FOAP Code:** 114000125051170100

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:

Need/Justification -

Because of AB 705, CCC have until Fall 2019 to design and fully implement a program which provides "reasonable probability that a student will complete a college level math class within 1 year." With the adoption of Common Core in K-12, there has been acknowledgement that intermediate algebra would no longer be the model prerequisite by which we define transfer level mathematics coursework. Many programs and classes have historically required intermediate algebra as a prerequisite or requirement for the program. We want to design a class that solidly develops the outlooks and strategies and habits of mind that transfer more readily to other coursework and life. We want to design a class in which students come to see and use quantitative reasoning as a tool for understanding and answering questions about our world--physical, financial, social, political, environmental. We want to design a class that allows everyone to develop their mathematical thinking skills. We are not alone. Faculty across the country have been engaged in this endeavor through the Quantway and Statway projects for nearly a decade now, under the auspices of the Carnegie Foundation. These collaboratively developed and improved materials have evolved through backwards design, starting with 21st Century Learning Outcomes in the context of mathematics. There are years of implementation and improvement, based on extensive back-end data collection. And we have several faculty members who have engaged in considerable professional development in this area. This course is our local attempt to leverage all of this work in our effort to support students in their development and achievement of their goals, in the spirit of AB 705.

1. Description -

Students will be able to apply mathematical reasoning in their personal, professional, and academic lives, to investigate new contexts, develop and propose possible solutions, discuss and analyze proposed plans, and make decisions. Students will learn to value the collaborative process of explaining, investigating, comparing and assessing a variety of perspectives and approaches. Through immersion in contextualized lessons, students will practice quantitative thinking as they build skill in communication, critical and creative thinking, and computation. They will grow their knowledge and understanding of themselves, each other, and the world through the study of culturally relevant contexts, such as personal finance, health and wellness, membership in society, and the environment.

Prerequisite: None

Co-requisite: None

Advisory: None

2. Course Objectives -

The student will be able to:

A. Plan, implement, and assess their work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.
B. Collaborate to collect, assemble, discuss, and present culturally-relevant information using team member knowledge, reading strategies, and the internet.
C. Read, comprehend, and discuss quantitative situations drawn from the fields of personal finance, health and wellness, environmental technologies, and civic engagement.
D. Demonstrate an understanding of mathematics by writing complete and correct responses to questions.
E. Apply proportional reasoning, analyze doubling times, and apply exponential and linear modeling to investigate environmental and social issues and compare issues/measures from different times or places.
F. Use estimation and investigation of multiple representations of numbers and functions to assess claims from a variety of fields, such as environmental, personal finance, health and wellness.
G. Use percents, estimation, and modeling to explore personal finance options, such as how credit cards work and how taxes are computed.
H. Use graphs to describe, interpret, synthesize, and predict information.
I. Calculate, compare, and interpret measures of center and make decisions.
J. Use dimensional analysis to solve complex problems with multiple pieces of information and steps.
K. Apply algebraic and proportional reasoning techniques to analyze multivariable relationships, such as "Stopping Distance of a Car" or "Blood Alcohol Content," and investigate how the formula was developed.
L. Identify, create and use models to predict values and solve problems in contextualized, culturally relevant settings.

3. Special Facilities and/or Equipment -

A. Scientific calculator.
B. Computer with internet access.

4. Course Content (Body of knowledge) -

A. Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.
    1. Workload and time management
        a. Calendar
    2. Getting support and asking for help

        a. Classmates
        b. Teacher and tutors
        c. Foundations Lab
        d. Financial Aid
        e. Counseling
    3. Learning opportunities
        a. Productive struggle
        b. Deliberate practice
        c. Explicit connections
        d. Collaboration and teamwork
    4. Mathematical habits of mind
        a. Interpreting contextualize problems
        b. Predicting solutions
        c. Analyzing different ideas
        d. Revising thinking and solutions
B. Collaborate to collect, assemble, discuss, and present culturally-relevant information using team member knowledge, reading strategies, and the internet.
    1. Mathematical identity development
    2. Cultural capital recognition and development
    3. Job skills development
        a. Communication skills
        b. Teamwork
        c. Interpersonal skills
C. Read, comprehend, and discuss quantitative situations drawn from the fields of personal finance, health and wellness, environmental technologies, and civic engagement.
    1. Reading comprehension strategies
        a. Comprehension and Synthesis Chart
            1. Qualitative information and vocabulary
            2. Quantitative information
            3. Plan of action
        b. Reading apprenticeship routines, such as:
            1. "Think Aloud" or
            2. "Talk to the Text"
D. Demonstrate an understanding of mathematics by writing complete and correct responses to questions.
    1. Simple and complete
    2. Specific
    3. Stand-alone
E. Apply proportional reasoning, analyze doubling times, and apply exponential and linear modeling to investigate environmental and social issues and compare issues/measures from different times or places.
    1. Culturally relevant issues, such as:
        a. Population
            1. Population growth
            2. Population density
        b. Allocation of resources
            1. Natural
            2. Human
            3. Per capita measures
    2. Absolute change vs. Relative change
F. Use estimation and investigation of multiple representations of numbers and functions to assess claims from a variety of fields, such as environmental, personal finance, health and wellness.
    1. Large numbers
    2. Mental math
    3. Scientific notation
    4. Tables, graphs, formulas, contexts
G. Use percents, estimation, and modeling to explore personal finance options, such as:
    1. Credit cards
    2. Tax forms
    3. Savings plans
        a. Simple interest
        b. Compound interest
    4. Consumer Price Index
        a. Base year
        b. Comparisons over time
        c. Purchasing power
        d. Interpretations
        e. Calculations
    5. Cost of Living Index
        a. Buying power
        b. Comparisons across location
H. Use graphs to describe, interpret, synthesize, and predict information.

1. Pie chart
2. Line graph
3. Bar chart
4. Pictographs
5. Scatterplots
6. Misleading graphs

I. Calculate, compare, and interpret measures of center and make decisions.
   1. Mean
   2. Median
   3. Mode
   4. Using formulas in a spreadsheet

J. Use dimensional analysis to solve complex problems with multiple pieces of information and steps.
   1. Units
      a. Conversions
      b. Equivalencies
   2. Application to real life problems, such as medical dosages
   3. Equations and proportions

K. Apply algebraic and proportional reasoning techniques to analyze multivariable relationships, such as "Stopping Distance of a Car" or "Blood Alcohol Content," and investigate how the formula was developed.
   1. Variables
      a. Subscripts
   2. Order of operations
   3. Units and dimensional analysis
   4. Role of each variable
   5. Relationship between two variables in a multi-variable formula
   6. Solving for an unknown variable or quantity
      a. Using square roots to solve an equation
   7. Inequalities
   8. Evaluating formulas
   9. Decision making using formulas

L. Identify, create and use models to predict values and solve problems in contextualized, culturally relevant settings.
   1. Connections between four representations of a function
      a. Contextual situations
      b. Table
      c. Graph
      d. Equation
   2. Units
   3. Vertical intercept
      a. Connection to graph
      b. Connection to equation
   4. Horizontal intercept
      a. Connection to graph
      b. Connection to equation
   5. Limitations of models based on data
      a. Interpolation
      b. Extrapolation
   6. Linear models
      a. Rate of change as slope
      b. Interpretations of slopes and intercepts
   7. Exponential models
      a. Percentage change
      b. Pattern recognition
      c. Growth
      d. Decay
      e. Financial models

5. Repeatability - Moved to header area.

6. Methods of Evaluation -

The student will demonstrate proficiency by participating in a variety of assessments, such as:

A. Ongoing, formative classroom assessments
B. Participation in group and class discussions
C. Checkpoint quizzes
D. Preparatory assignments
E. Homework
F. Lab work

G. Module tests
H. Final exam
I. Projects
J. Presentations
K. Portfolio development

7. Representative Text(s) -

Carnegie Foundation for the Advancement of Teaching. Quantway 1. XanEdu, 2018.

8. Disciplines -

Mathematics

9. Method of Instruction -

A. Students will be engaged in small group discussion of contextualized culturally relevant problems followed by wrap-up discussions of group findings and important mathematical ideas related to contextualized problems.
B. Students will reflect on their thinking and on problem ideas individually and in pairs.
C. Students will address mathematical sticking points through discussion and short, targeted, small group or whole class lectures.
D. Students will experience short lectures and discussion of aspects of self-regulated learning and aspects of self-efficacy: as a mathematical thinker, as a student, and as a member of society.
E. Guest lectures, tours, and laboratory activities will support development of mathematical identity and self-efficacy.
F. Students will engage in in-class readings of contextualized, culturally relevant problems and participate in short, targeted lectures on reading comprehension strategies which they will then apply.
G. Students will make group presentations of minor or major projects and problems followed by in-class discussion and evaluation.

10. Lab Content -

Students will plan, implement, and assess their work cycles, at the course level, to develop self-efficacy through the practice of self-regulated learning.

A. Learning opportunities and classroom norms
    1. Productive struggle
    2. Deliberate practice: Extending what we learn
    3. Explicit connections and wrap-up
    4. Collaboration and teamwork: Some agreements
B. Workload and time management
    1. Collecting data
    2. Goal setting
    3. Analyzing resources
    4. Tools and technologies
    5. Staying connected
C. Making a plan: Calendars and logs
    1. Exploration: Map of current commitments
    2. Consultation: Reviewing recommendations/expert advice/Carnegie Units
    3. Reflect on plan or change plan
D. Building a network for mathematical success, academic
    1. In the classroom (building peer groups)
    2. Beyond the classroom (office hours, interview instructors)
    3. Tutors
    4. Labs and library
    5. Counselors
E. Financial planning
    1. Costs (collecting data and predicting expenses)
    2. Sources of support
    3. The basics of credit cards
F. Building a network for mathematical success, financial (in consultation with campus resources)
    1. Financial Aid
    2. EOPS
    3. Scholarships and campus jobs
G. Building success habits
    1. Foundations Lab (developing skills for exploratory learning and practice)
    2. Tutor relationships (what the tutors recommend, habits for successful students)

H. Building a network for mathematical success, registration (can be in consultation with DRC, Admissions and Records, Counselors)
    1. Planning For the next class and quarter
    2. Registration priority level
    3. Timelines
I. Resources in case you forget the math
    1. On campus
    2. Online
J. Connected, Nurtured, Valued: 3 factors of student success
    1. Looking back
    2. Moving forward

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

12. Types and/or Examples of Required Reading, Writing and Outside of Class Assignments -

A. Deliberate practice: Daily homework designed to extend concept and skill development.
B. Preparatory homework designed to prepare students for the next lesson.
C. Module reviews designed to prepare students for module quizzes and exams.
D. Online module checkpoint quizzes.
E. Portfolio development.
F. Lesson preview reading.