

College Curriculum Committee Meeting Agenda

Tuesday, October 22, 2024

2:00 p.m. – 3:30 p.m.

Administrative Conference Room 1901; virtual option via Zoom

Item	Time*	Action	Attachment(s)	Presenter(s)
1. Minutes: October 8, 2024	2:00	Action	#10/22/24-1	Kaupp
2. Report Out from CCC Members	2:02	Discussion		All
3. Public Comment on Items Not on Agenda (CCC cannot discuss or take action)	2:12	Information		
4. Announcements a. Notification of Proposed Requisites b. Technical Review Committee	2:17	Information	#10/22/24-2	CCC Team
5. New Certificate Application: Business and Marketing	2:27	2nd Read/ Action	#10/22/24-3	Kaupp
6. Stand Alone Applications: MATH 211A, 211B, 247	2:30	1st Read	#10/22/24-4–6 & 10	Kaupp
7. Stand Alone Applications: NCBS 411A, 411B, 447	2:35	1st Read	#10/22/24-7– 10	Kaupp
8. Stand Alone Application: SPAN 51C	2:40	1st Read	#10/22/24-11	Kaupp
9. Updating Foothill GE	2:43	Discussion	#10/22/24-12– 13	Kaupp
10. Division CC Brown Act Compliance	3:00	Discussion /Action	#10/22/24-14	Kaupp
11. Good of the Order	3:27			Kaupp
12. Adjournment	3:30			Kaupp

*Times listed are approximate

Attachments:

#10/22/24-1	Draft Minutes: October 8, 2024
#10/22/24-2	CCC Notification of Proposed Requisites
#10/22/24-3	New Certificate Application: Business and Marketing
#10/22/24-4–6	Stand Alone Applications: MATH 211A , MATH 211B , MATH 247
#10/22/24-7–9	Stand Alone Applications: NCBS 411A , NCBS 411B , NCBS 447
#10/22/24-10	Evidence for MATH & NCBS Stand Alone Applications
#10/22/24-11	Stand Alone Application: SPAN 51C
#10/22/24-12	New Foothill General Education Pattern
#10/22/24-13	Current Foothill GE Courses and Graduation Requirements
#10/22/24-14	Division Curriculum Committee Bylaws Template

2024-2025 Curriculum Committee Meetings:

<u>Fall 2024 Quarter</u>	<u>Winter 2025 Quarter</u>	<u>Spring 2025 Quarter</u>
10/8/24	1/21/25	4/15/25
10/22/24	2/4/25	4/29/25
11/5/24	2/18/25	5/13/25
11/19/24	3/4/25	5/27/25
12/3/24	3/18/25	6/10/25

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

2024-2025 Curriculum Deadlines:

- 12/2/24* Deadline to submit courses for Cal-GETC approval (Articulation Office).
TBD Deadline to submit curriculum sheet updates for 2025-26 catalog (Faculty/Divisions).
6/2/25 Deadline to submit new/revised courses to UCOP for UC transferability (Articulation Office).
TBD Deadline to submit course updates and local GE applications for 2026-27 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 (LRC), Chris Allen (Dean, APPR), Jeff Bissell (KA), Sam Bliss (De Anza AVP Instruction), Cynthia Brannvall (FAC), Rachelle Campbell (HSH), Zach Cembellin (Dean, STEM), Anthony Cervantes (Dean, Enrollment Services), Sam Connell (BSS), Robert Cormia (STEM), Stephanie Crosby (Dean, SRC), Cathy Draper (HSH), Angie Dupree (BSS), Kelly Edwards (KA), Gina Firenzi (APPR), Jordan Fong (FAC), Patricia Gibbs Stayte (BSS), Evan Gilstrap (Articulation Officer), Stacy Gleixner (VP Instruction), Ron Herman (Dean, FAC), Kurt Hueg (Administrator Co-Chair), Rose Huynh (LA), Maritza Jackson Sandoval (CNSL), Ben Kaupp (Faculty Co-Chair), Amber La Piana (LA), Natalie Latteri (BSS), Andy Lee (CNSL), Brian Murphy (APPR), Tim Myres (APPR), Teresa Ong (AVP Workforce), Sarah Parikh (STEM), Eric Reed (LRC), Richard Saroyan (SRC), Amy Sarver (LA), Paul Starer (APPR), Shae St. Onge-Cole (HSH), Kyle Taylor (STEM), Mary Vanatta (Curriculum Coordinator), Nate Vennarucci (APPR), Voltaire Villanueva (AS President), Sukhjit Singh (De Anza CCC Faculty Co-Chair), Erik Woodbury (De Anza AS President)

COLLEGE CURRICULUM COMMITTEE

Committee Members – 2024-25

Meeting Date: 10/22/24Co-Chairs (2)

<u>✓*</u>	Ben Kaupp	408-874-6380	Vice President, Academic Senate (tiebreaker vote only)	kauppben@fhda.edu
_____	Kurt Hueg	7179	Associate Vice President of Instruction	huegkurt@fhda.edu

Voting Membership (1 vote per division)

<u>✓*</u>	Micaela Agyare	7086	LRC	agyaremicaela@fhda.edu
<u>✓</u>	Jeff Bissell	7663	KA	bisselljeff@fhda.edu
<u>✓*</u>	Cynthia Brannvall	7477	FAC	brannvallcynthia@fhda.edu
<u>✓*</u>	Rachelle Campbell	7469	HSH	campbellrachelle@fhda.edu
<u>✓*</u>	Zach Cembellin	7383	Dean—STEM	cembellinzachary@fhda.edu
<u>✓*</u>	Sam Connell	7197	BSS	connellsamuel@fhda.edu
<u>✓*</u>	Cathy Draper	7249	HSH	drapercatherine@fhda.edu
<u>✓*</u>	Angie Dupree		BSS	dupreeangelica@fhda.edu
_____	Kelly Edwards	7327	KA	edwardskelly@fhda.edu
<u>✓*</u>	Jordan Fong	7272	FAC	fongjordan@fhda.edu
<u>✓*</u>	Evan Gilstrap	7675	Articulation	gilstrapevan@fhda.edu
<u>✓*</u>	Ron Herman	7156	Dean—FAC	hermanron@fhda.edu
<u>✓*</u>	Maritza Jackson Sandoval	7409	CNSL	jacksonsandovalmaritza@fhda.edu
<u>✓</u>	Amber La Piana	7678	LA	lapianaamber@fhda.edu
<u>✓*</u>	Andy Lee	7783	CNSL	leeandrew@fhda.edu
_____	Brian Murphy		APPR	brian@pttc.edu
<u>✓*</u>	Tim Myres		APPR	timm@smw104jatc.org
<u>✓*</u>	Sarah Parikh	7748	STEM	parikhsarah@fhda.edu
_____	Eric Reed	7091	LRC	reederic@fhda.edu
<u>✓</u>	Richard Saroyan	7232	SRC	saroyanrichard@fhda.edu
<u>✓</u>	Amy Sarver	7459	LA	sarveramy@fhda.edu
_____	Shae St. Onge-Cole	7818	HSH	stonge-coleshaelyn@fhda.edu
<u>✓*</u>	Kyle Taylor	7126	STEM	taylorkyle@fhda.edu

Non-Voting Membership (4)

_____			ASFC Rep.	
<u>✓*</u>	Mary Vanatta	7439	Curr. Coordinator	vanattamary@fhda.edu
_____			Evaluations	
_____			SLO Coordinator	

Visitors

Chris Allen, Ben Armerding*, Patricia Gibbs Stayte, Rose Huynh*, Stephanie King*, Natalie Latteri, Paul Starer, Fiona Wiesner*, Erik Woodbury*

* Indicates in-person attendance

**College Curriculum Committee
Meeting Minutes
Tuesday, October 8, 2024
2:00 p.m. – 3:30 p.m.
Administrative Conference Room 1901; virtual option via Zoom**

Item	Discussion
1. CCC Orientation	<p>Speakers: Evan Gilstrap & Ben Kaupp Kaupp shared presentation, overview of process and responsibilities pertaining to CCC rep role. Highlighted that CCC is a mix of folks with a variety of levels of knowledge and from diverse disciplines, which leads to robust discussion. Brief explanation of Brown Act and what it means for CCC. Noted we're the only college with a division curriculum committee structure. This structure can put a lot of pressure and responsibility on the reps, and Kaupp strongly encouraged reps to reach out whenever they need assistance. Agyare asked what the dean's role is in division CCs—Kaupp responded, they don't have any official voting role in creation of curriculum but are in charge of scheduling so could prevent a course from being scheduled. Collaboration with deans is a good thing!</p> <p>Gilstrap shared presentation, overview of articulation. Walgren asked if there's a way to efficiently search for courses re: articulation without having to search multiple individual websites—Gilstrap responded, yes, and can provide that info at next CCC meeting.</p>
2. Minutes: June 11, 2024	<p>Approved by consensus.</p>
3. Introductions & Report Out from CCC Members	<p>Speaker: All All attendees introduced themselves!</p> <p>Apprenticeship: Nate Vennarucci serving as in-person proxy. Shared Livermore training facility just began offering ENGL 1A. Mentioned add'l programs will be submitting apps for Foothill GE mapping.</p> <p>BSS: Dupree mentioned new cert. on today's agenda.</p> <p>Counseling: Jackson Sandoval mentioned upcoming Transfer Fair. Lee encouraged CCC members to reach out with any counseling related questions.</p> <p>Fine Arts & Comm.: No updates to report.</p> <p>HSH: Campbell shared division developing five year plan for COR updates, to avoid programs having to update all of their courses during the same year.</p> <p>Kinesiology & Athletics: No updates to report.</p> <p>Language Arts: Rose Huynh serving as in-person proxy. Sarver mentioned division looking for second rep.</p> <p>LRC: Agyare shared Library offering series of drop-in workshops for students, and noted various ways Library can support faculty in the classroom, beyond just offering textbooks. Reed shared WLC & STEM Center are both open!</p> <p>STEM: Taylor shared working on Common Course Numbering.</p>

	<p>SRC: No updates to report. Saroyan encouraged CCC members to reach out with any questions related to the division’s services. Kaupp shared TTW planning to create certificate.</p> <p>Hueg shared there’s a variety of curriculum-related initiatives happening college-wide, including workforce/CTE noncredit, noncredit for older adults.</p> <p>Vanatta shared currently following up w/ faculty re: COR submissions from June; reps are CC’d on emails but don’t necessarily need to take action (will make clear when reps’ attention needed).</p>
<p>4. Public Comment on Items Not on Agenda</p>	<p>Parikh mentioned she’s going on PDL after fall quarter; found someone interested in taking her place as rep but was told they cannot—they are classified staff with a teaching assignment. Parikh would like this person to be able to serve as a rep. Kaupp will reach out to Parikh to discuss situation.</p>
<p>5. Announcements</p> <p>a. New Course Proposal</p> <p>b. Common Course Numbering</p> <p>c. New Minimum Qualifications Handbook (AKA Disciplines List)</p>	<p>Speakers: CCC Team</p> <p>The following proposal was presented: AATA 106A. No comments.</p> <p>Gilstrap provided update on Common Course Numbering (CCN). Currently working with faculty on Phase 1: Six courses, which must be submitted in CCCCCO’s inventory system by Dec. 2 and published by fall 2025. Phase 2 courses have been announced: approx. 20 courses, including some sequences. All three quarter system schools have been meeting, incl. w/ CCCCCO folks, to discuss CCN and potential solutions for quarter schools. If we do stay on the quarter system, students may be impacted when it comes to course sequences, in the same way they currently are.</p> <p>Faculty convenings for Phase 2 being held October through December. Faculty must apply, and only 12 faculty will be selected for each convening. Taylor asked if there is a timeline for the quarter system discussions—Gilstrap responded, not yet; currently, the colleges made recommendations to CCCCCO, and CCCCCO is discussing on their end. There will likely be a lot of back-and-forth before a resolution is figured out. Gilstrap also noted the various technology systems (e.g., Banner) haven’t yet figured out how they will accommodate CCN. Connell asked for more details about course sequences—Gilstrap explained, and provided example of students at quarter schools needing to take three courses to equal two courses at a semester school.</p> <p>Campbell mentioned C-ID and asked how it relates to CCN—Gilstrap responded, for CCN courses with a C-ID descriptor, that descriptor being used as starting point for creating CCN template. Gilstrap mentioned Phase 3 planned to be about 50 courses, and unknown what will happen beyond that. Parikh noted Engineering dept. offers some courses which no other colleges offer, and asked how those will be handled—Gilstrap responded, local courses like these will likely not become CCN. Cembellin asked if calculus sequence includes MATH 1D—Gilstrap responded, no. Cembellin asked how statistics course will look (e.g., in the schedule), given that the subject code must be STAT (instead of MATH)—Gilstrap responded, it will be up to the college to figure that out. Taylor asked if there are any best practices/advice for reps to tell their constituents involved in this process (e.g., creating new courses, updating SLOs)—Gilstrap responded, faculty should continue forward with whatever they have planned, since a lot is still unknown.</p> <p>Vanatta announced there’s a new edition of the MQ handbook, which has been uploaded to the CCC website. No new disciplines have been</p>

<p>d. Recent CCCC CO Approvals!</p>	<p>added; just one change, to the Ethnic Studies discipline. Kaupp explained that the discipline listed on a course drives the minimum qualifications any faculty teaching the course needs to meet. Noted that if MQs are updated in the handbook, faculty who have been teaching the course get grandfathered in.</p> <p>Vanatta announced that, back in June, we received state approval for two new certificates of achievement: Archaeological Field Work and Spanish-Advanced.</p>
<p>6. New Certificate Application: Business and Marketing</p>	<p>Speaker: Ben Kaupp First read of new Business and Marketing Certificate of Achievement. Dupree noted Business dept. already has two CAs on the books, and this new one combines courses in traditional marketing into a lower unit CA. Noted there's an industry need for this combination of skills.</p> <p>Second read and possible action will occur at next meeting.</p>
<p>7. CCC Priorities for 2024-25</p>	<p>Speaker: Ben Kaupp One main priority for this year will be ensuring compliance with Brown Act. Some division curriculum committees might not be in compliance, which would be a big problem. For example, Canvas sites, which many divisions use to review and vote on curriculum, are not in compliance. Even though Brown Act does not work well in the modern world, we are still bound by it. If a decision is made in a meeting which ends up being found to violate Brown Act, that decision can be nullified.</p> <p>Kaupp believes we have two options: 1) division CCs all come into compliance with Brown Act; or 2) all curriculum decisions/approvals take place at CCC. Kaupp noted that division CCs could continue to operate the same way under option 2, but they would not officially be approving anything. Dupree believes BSS is somewhat in compliance, as the agenda is posted and meetings are in person, although not many folks show up. BSS uses Canvas to share curriculum items for faculty to review. Kaupp mentioned the importance of determining who are the official members of the division CC, noting that (re: BSS) if it's just the two reps then their in-person meetings are okay. Kaupp cautioned all reps against discussing curriculum outside of their meetings. Parikh believes STEM might be following Brown Act. Kaupp noted a big concern is that division CCs are using Canvas to hold votes. Parikh mentioned that, in the past, reps have distributed information to faculty via email to ask for feedback to inform division CC members how to vote, and asked if this is okay—Kaupp responded, as long as actual decisions/voting taking place at division CC meetings, should be okay.</p> <p>Campbell noted HSH division CC posts agendas and holds in-person meetings, and believes there needs to be clear, written guidance from CCC to ensure division CCs in compliance, including what constitutes a quorum. Pointed out the high volume of work being done by division CCs, which would be a lot for CCC to take on. Fong asked for clarification re: curriculum discussions between reps—Kaupp responded, curriculum should not be discussed outside of meetings. Starer asked if dept. meetings fall under Brown Act—Kaupp responded, no, dept. meetings exempt because they're more like a report out among constituents. Agyare asked if both reps must be meeting in person for division CC meetings—Kaupp responded, in order to be Brown Act compliant, any person joining online must have their address posted on the agenda in order to vote. Kaupp reminded the reps that division CCs allowed to determine their own quorum. Vanatta mentioned a big part of finalizing COR submissions is emailing faculty with follow-up questions, and asked if these emails are in violation of</p>

	<p>Brown Act; noted that if any significant edits needed to a COR as a result of emails, division CC must approve—Kaupp responded, discussing minor technical edits via email is okay.</p> <p>Topic will continue to be discussed this year, and Kaupp encouraged reps to reach out with questions or concerns from them or their faculty.</p> <p>Related to the above, another priority will be discussing possibility of creating a Technical Review Committee. We are one of the only colleges without such a group, which reviews CORs to check for compliance. We need to discuss if we want to create one, and (if so) what its role will be and who will serve.</p> <p>Another main priority for this year will be SLOs, which is a college-wide priority. CCC has not been asked to take on any specific role related to SLOs, but we should be ready in case we are eventually asked. Campbell believes that until the college makes a decision regarding a technology solution for SLOs, there's nothing faculty and divisions can really do. Kaupp noted discussion re: tech is currently taking place, and the wider priority is discussing who should be in charge of SLOs (e.g., SLO Committee) and ensuring quality of SLOs. Noted SLO Coordinator role being created.</p>
<p>8. Updating Foothill GE</p>	<p>Speaker: Ben Kaupp The new Foothill GE pattern created by CCC last year was approved by Academic Senate and we can now move forward! Our new pattern isn't quite in synch with De Anza's but is pretty closely aligned. Gilstrap mentioned that a lot of work needs to be done to create our new pattern, including establishing the criteria for each GE area. Believes some can carry over from our current pattern, but there are two brand-new areas, Area 2 and Area 6. Kaupp mentioned the need to discuss if we want to continue to have GE subcommittees.</p>
<p>9. Good of the Order</p>	
<p>10. Adjournment</p>	<p>3:27 PM</p>

Attendees: Micaela Agyare* (LRC), Chris Allen* (Dean, APPR), Jeff Bissell (KA), Rachelle Campbell* (HSH), Zach Cembellin* (Dean, STEM), Sam Connell* (BSS), Cathy Draper* (HSH), Angie Dupree* (BSS), Jordan Fong* (FAC), Evan Gilstrap* (Articulation Officer), Ron Herman* (Dean, FAC), Kurt Hueg* (Administrator Co-Chair), Rose Huynh* (LA), Maritza Jackson Sandoval* (CNSL), Ben Kaupp* (Faculty Co-Chair), Amber La Piana (LA), Andy Lee* (CNSL), Sarah Parikh* (STEM), Eric Reed (LRC), Richard Saroyan (SRC), Amy Sarver (LA), Paul Starer (APPR), Kyle Taylor* (STEM), Mary Vanatta* (Curriculum Coordinator), Nate Vennarucci* (APPR), Judy Walgren (FAC)

* Indicates in-person attendance

Minutes Recorded by: M. Vanatta

CCC Notification of Proposed Prerequisites and Corequisites

The following courses are implementing new requisites or updating current requisites and have completed the required Content Review form in CourseLeaf. Please contact the Division Curriculum Rep if you have any questions or comments.

Target Course Number & Title	COR Editor	Requisite Course Number & Title	New/Update
BIOL 36AH HONORS EXPERIMENTAL RESEARCH IN BIOLOGY I	S. Cooper	Prereq: One of the following: BIOL 1A PRINCIPLES OF CELL BIOLOGY BIOL 10 GENERAL BIOLOGY: BASIC PRINCIPLES BIOL 14 HUMAN BIOLOGY BIOL 41 MICROBIOLOGY	New requisite for 2025-26
BIOL 36BH HONORS EXPERIMENTAL RESEARCH IN BIOLOGY II	S. Cooper	Prereq: BIOL 36AH HONORS EXPERIMENTAL RESEARCH IN BIOLOGY I	New requisite for 2025-26
BIOL 36CH HONORS EXPERIMENTAL RESEARCH IN BIOLOGY III	S. Cooper	Prereq: BIOL 36BH HONORS EXPERIMENTAL RESEARCH IN BIOLOGY II	New requisite for 2025-26
C S 18 DISCRETE MATHEMATICS	E. Reed	Prereq: One of the following (or equivalent): C S 1A OBJECT-ORIENTED PROGRAMMING METHODOLOGIES IN JAVA C S 2A OBJECT-ORIENTED PROGRAMMING METHODOLOGIES IN C++ C S 3A OBJECT-ORIENTED PROGRAMMING METHODOLOGIES IN PYTHON	Updated requisite for 2025-26 (currently only C S 1A listed)
C S 18 DISCRETE MATHEMATICS	E. Reed	Prereq: One of the following (or equivalent): MATH 47 PATH TO CALCULUS MATH 48C PRECALCULUS III	Updated requisite for 2025-26 (currently only MATH 48C listed)
ENGL 16H HONORS INTRODUCTION TO LITERATURE	N. Menendez	Prereq: One of the following: ENGL 1A COMPOSITION & READING ENGL 1AH HONORS COMPOSITION & READING ESLL 26 ADVANCED COMPOSITION & READING	New requisite for 2025-26
MATH 1A CALCULUS	M. Francisco	Prereq: One of the following (or equivalent): MATH 47 PATH TO CALCULUS MATH 48C PRECALCULUS III	Updated requisite for 2025-26 (currently only MATH 48C listed)
MATH 1AH HONORS CALCULUS I	T. Zwack	Prereq: One of the following (or equivalent): MATH 47 PATH TO CALCULUS MATH 48C PRECALCULUS III	Updated requisite for 2025-26 (currently only MATH 48C listed)

MATH 22 DISCRETE MATHEMATICS	T. Zwack	Prereq: One of the following (or equivalent): C S 1A OBJECT-ORIENTED PROGRAMMING METHODOLOGIES IN JAVA C S 2A OBJECT-ORIENTED PROGRAMMING METHODOLOGIES IN C++ C S 3A OBJECT-ORIENTED PROGRAMMING METHODOLOGIES IN PYTHON	Updated requisite for 2025-26 (currently only C S 1A listed)
MATH 22 DISCRETE MATHEMATICS	T. Zwack	Prereq: One of the following (or equivalent): MATH 47 PATH TO CALCULUS MATH 48C PRECALCULUS III	Updated requisite for 2025-26 (currently only MATH 48C listed)
MATH 47 PATH TO CALCULUS	T. Zwack	Prereq: Intermediate Algebra or equivalent	New requisite for 2025-26
PHYS 4C GENERAL PHYSICS (CALCULUS)	D. Marasco	Prereq: PHYS 4A GENERAL PHYSICS (CALCULUS)	Updated requisite for 2025-26 (replacing PHYS 4B)
R T 55A PRINCIPLES OF RADIOLOGIC TECHNOLOGY I	R. Campbell	Prereq: MATH 40A QUANTITATIVE REASONING	New requisite for 2025-26
R T 200L RADIOLOGIC TECHNOLOGY AS A CAREER	L. Chesser-Nielsen	Prereq: COMM 2 INTERPERSONAL COMMUNICATION	New requisite for 2025-26

Business and Marketing, Certificate of Achievement

Basic Information

Faculty Author(s)

Laurence Lew
Natasha Mancuso

Department

Business

Division

Business and Social Sciences

Title of Degree/Certificate

Business and Marketing

Type of Award

Certificate of Achievement

Workforce/CTE Program:

Yes

Effective Catalog Edition:

2024-2025

Certificate of Achievement Workforce Narrative

Program Goals and Objectives

The Certificate of Achievement in Business and Marketing will introduce key concepts in business and marketing and offer practical training in the latest techniques used by businesses and organizations to obtain new customers, generate customer loyalty, and drive profit. Small businesses and large companies alike are in dire need of employees who understand and can apply the basic business and marketing principles. This program will position individuals to benefit from the projected 10 percent growth in marketing and advertising positions that involve using these tools and strategies.

Program Learning Outcomes

- Upon completion of the program, the student will have acquired the necessary basic skills to build and execute an effective marketing strategy.

- Upon completion of the program, the student will be able to demonstrate appropriate critical thinking, problem-solving, and communication skills to enhance the marketing efforts of a business or an organization.

Catalog Description

The Certificate of Achievement in Business and Marketing is designed for students who are seeking to learn the latest marketing tools to promote a business or an organization. The certificate provides 18 units of instruction in key elements: business and product life cycle, marketing and advertising strategy, ad campaign strategy, and key performance metrics. Courses can be taken in person and/or online.

Program Requirements

Core Course Units: 18

Course List		
Code	Title	Units
<u>BUSI F022.</u>	PRINCIPLES OF BUSINESS	5
<u>BUSI F057.</u>	PRINCIPLES OF ADVERTISING	4
<u>BUSI F059.</u>	PRINCIPLES OF MARKETING	4
<u>BUSI F059A</u>	ONLINE MARKETING	5

Total Units: 18

Proposed Sequence

Term	Units
Year 1, Fall	9
Year 1, Winter	4
Year 1, Spring	5

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 understand business and marketing tools and can utilize them to benefit an organization. This certificate will allow students to achieve their goals, whether it is to promote their business, advance in place of employment, or transfer credit to a four-year college. The Certificate of Achievement in Business and Marketing is also a pivotal step for students who are retraining, returning to the workplace, and/or updating work skills.

Enrollment and Completer Projections

BUSI 22 and BUSI 59 were regularly offered since 2015 and averaged 490 and 518 annual enrollments, respectively. While BUSI 57 and BUSI 59A have only been offered once a year,

the demand for these classes is strong as they are always full with waiting lists. Due to the strong demand for skills developed within the Certificate of Achievement in Business and Marketing and the brief nature of the certificate program, we believe that enrollment will grow in all four courses. We also believe that the compact nature of the certificate will attract individuals who are seeking to employ the newly acquired skills in their current jobs.

Because 100% of the courses can be taught completely online, it is expected that nationwide participation over the next five years will significantly increase the number of students who complete this certificate. This certificate can also be offered to dual-enrollment students in partnership with local high schools.

Historical Enrollment Data

Course #	Course Title	Y1 - Annual Sections	Y1 - Annual Enrollment	Y2 - Annual Sections	Y2 - Annual Enrollment
BUSI 22	Principles of Business	13	535	12	476
BUSI 57	Principles of Advertising	1	47	1	42
BUSI 59	Principles of Marketing	4	156	3	121
BUSI 59A	Online Marketing	1	46	1	46

Place of Program in Curriculum/Similar Programs

Foothill College currently offers all courses necessary to complete the Certificate of Achievement in Business and Marketing. Combining these courses into a certificate will benefit the students as the certificates of achievement are recognized and desired by the industry.

Similar Programs at Other Colleges in Service Area

The closest comparable program in California is offered by UC Berkeley Extension as Certificate in Marketing. The Berkeley Extension program consists of a combination of 3 core courses (6 semester units) and 4 semester units of electives for a total of 10 semester units or 150 hours of instruction. The program takes about 2 years to complete. The approximate cost is \$4,700.

Foothill's Certificate of Achievement in Business and Marketing will be different from Berkeley in the following ways:

- It will include an introduction to business and where marketing fits in within business (BUSI 22 and BUSI 59)
- It will include a specialized advertising course that will span both traditional methods and digital advertising (BUSI 57)
- It will include an introduction to digital marketing tools and strategies (BUSI 59A)

- It can be completed in just one year
- The cost is significantly less for in-state students

Additional Information Required for State Submission

TOP Code: *0501.00 - Business and Commerce, General

CIP Code: 52.0201 - Business Administration and Management, General.

Will any new resources be required (e.g., facilities, equipment, personnel)? No

Gainful Employment: No

Distance Education: 100%



Labor Market Information Report Marketing Analytics Occupations Foothill College

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

March 2024

Recommendation

Based on all available data, there appears to be an “undersupply” of Marketing Analytics workers compared to the demand for this cluster of occupations in the Bay region and in the Silicon Valley sub-region (Santa Clara county). There is a projected annual gap of about 6,832 students in the Bay region and 2,365 students in the Silicon Valley Sub-Region.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0501.00 - Business and Commerce, General programs in the state and region. It is recommended that these data be reviewed to better understand how outcomes for students taking courses on this TOP code compare to potentially similar programs at colleges in the state and region, as well as to outcomes across all CTE programs at Foothill College and in the region.

This report profiles Marketing Analytics Occupations in the 12 county Bay region and in the Silicon Valley sub-region for exploratory purposes at Foothill College. Labor market information (LMI) is not available at the eight-digit SOC Code level for “Search Marketing Strategists” (13-1161.01), therefore the data shown in Tables 1 and 2 is for Market Research Analysts and Marketing Specialists (13-1161.00 at the six digit SOC level).

- **Marketing Managers (11-2021):** Plan, direct, or coordinate marketing policies and programs, such as determining the demand for products and services offered by a firm and its competitors, and identify potential customers. Develop pricing strategies with the goal of maximizing the firm’s profits or share of the market while ensuring the firm’s customers are satisfied. Oversee product development or monitor trends that indicate the need for new products and services.
Entry-Level Educational Requirement: Bachelor’s degree
Training Requirement: None
Percentage of Community College Award Holders or Some Postsecondary Coursework: 15%
- **Market Research Analysts and Marketing Specialists (13-1161):** Research market conditions in local, regional, or national areas, or gather information to determine potential sales of a product or service, or create a marketing campaign. May gather information on competitors, prices, sales, and methods of marketing and distribution.
Entry-Level Educational Requirement: Bachelor’s degree
Training Requirement: None
Percentage of Community College Award Holders or Some Postsecondary Coursework: 15%

Occupational Demand

Table 1. Employment Outlook for Marketing Analytics Occupations in Bay Region

Occupation	2021 Jobs	2026 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Marketing Managers	20,028	21,544	1,516	8%	10,548	2,110	\$72	\$93
Market Research Analysts and Marketing Specialists	38,444	43,955	5,511	14%	25,521	5,104	\$34	\$48
Total	58,472	65,499	7,027	12%	36,070	7,214		

Source: Lightcast 2022.3

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 Marketing Analytics Occupations in Silicon Valley Sub-region

Occupation	2021 Jobs	2026 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Marketing Managers	7,244	7,660	416	6%	3,652	730	\$76	\$98
Market Research Analysts and Marketing Specialists	13,070	14,646	1,576	12%	8,278	1,656	\$36	\$55
Total	20,313	22,306	1,992	10%	11,930	2,386		

Source: Lightcast 2022.3

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

Occupation	Bay Region	Silicon Valley
Marketing Managers	18,141	5,968
Market Research Analysts and Marketing Specialists	5,981	1,507

Source: Lightcast

Table 4a. Top Job Titles for Marketing Analytics Occupations for latest 12 months - Bay Region

Title	Bay	Title	Bay
Product Managers	2,005	Directors of Product Marketing	236
Marketing Product Managers	699	Digital Product Managers	188
Marketing Managers	696	Growth Marketing Managers	186
Directors of Product Management	495	Growth Product Managers	152
Marketing Coordinators	426	Principal Product Managers	145
Directors of Marketing	272	Digital Marketing Managers	144
Marketing Specialists	260	Marketing Associates	143
Technical Product Managers	240	Marketing Assistants	127
Platform Product Managers	239	Social Media Managers	127

Title	Bay	Title	Bay
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Source: Lightcast

Table 4b. Top Job Titles for Marketing Analytics Occupations for latest 12 months - Silicon Valley Sub-Region

Title	Silicon Valley	Title	Silicon Valley
Product Managers	772	Principal Product Managers	66
Marketing Product Managers	245	Google Cloud Architects	62
Marketing Managers	205	Directors of Marketing	60
Directors of Product Management	200	Marketing Program Managers	50
Technical Product Managers	112	Group Product Managers	45
Directors of Product Marketing	111	Digital Product Managers	41
Marketing Specialists	83	Google Specialists	41
Marketing Coordinators	78	Sales Operations Analysts	41
Platform Product Managers	76	Product Marketing Managers	40

Source: Lightcast

Industry Concentration

Table 5. Industries hiring Marketing Analytics Workers in Bay Region

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2021)	Jobs in Industry (2026)	% Change (2021-26)	% Occupation Group in Industry (2022)
Software Publishers	3,859	4,400	14%	7%
Custom Computer Programming Services	3,153	4,332	37%	7%
Corporate, Subsidiary, and Regional Managing Offices	3,490	3,420	-2%	6%
Administrative Management and General Management Consulting Services	2,409	3,078	28%	5%
Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers	3,780	3,108	-18%	5%
Web Search Portals and All Other Information Services	3,215	2,922	-9%	4%
Data Processing, Hosting, and Related Services	1,518	2,342	54%	3%
Computer Systems Design Services	1,697	1,936	14%	3%
Other Scientific and Technical Consulting Services	1,262	1,138	-10%	2%
Electronic Computer Manufacturing	1,156	1,304	13%	2%

Source: Lightcast 2022.3

Table 6. Top Employers Posting Marketing Analytics Occupations in Bay Region and Silicon Valley Sub-Region

Employer	Bay	Employer	Silicon Valley
Google	333	Google	265
Meta	304	Tiktok	245
Walmart	281	Cisco	131
Tiktok	271	Apple	122
Cisco	207	Adobe	114
Salesforce	202	Intuit	109

Source: Lightcast

Educational Supply

There are 16 community colleges in the Bay Region issuing 382 awards on average annually (last 3 years ending 2021-22) on TOP 0501.00 - Business and Commerce, General. In the Silicon Valley Sub-Region, there are three (3) community colleges that issued 21 awards on average annually (last 3 years) on this TOP code.

Table 7a. Community College Awards on TOP 0501.00 - Business and Commerce, General in Bay Region

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Noncredit award	Total
Berkeley City	East Bay	5	5	0	0	10
Cabrillo	SC-Monterey	41	1	3	0	45
Chabot	East Bay	0	0	41	0	41
Diablo Valley	East Bay	27	0	22	0	49
Gavilan	Silicon Valley	7	0	9	0	16
Las Positas	East Bay	11	0	0	0	11
Marin	North Bay	5	0	1	0	6
Merritt	East Bay	5	0	0	0	5
Mission	Silicon Valley	3	0	1	0	4
Monterey	SC-Monterey	0	1	0	0	1
Napa	North Bay	10	0	0	0	10
Ohlone	East Bay	129	0	0	0	129
San Francisco	Mid-Peninsula	30	0	4	0	34
San Mateo	Mid-Peninsula	15	0	0	0	15
Santa Rosa	North Bay	0	0	0	5	5
West Valley	Silicon Valley	0	0	1	0	1
Total		288	7	82	5	382

Source: Data Mart

Note: The annual average for awards is 2019-20 to 2021-22.

Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 7,214 annual openings for the Marketing Analytics occupational cluster and 382 annual (3-year average) awards for an annual undersupply of 6,832 students. In the Silicon Valley Sub-Region, there is also a gap with 2,386 annual openings and 21 annual (3-year average) awards for an annual undersupply of 2,365 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0501.00 - Business and Commerce, General

Metric Outcomes	Bay All CTE Program	Foothill All CTE Programs	State 0501.00	Bay 0501.00	Silicon Valley 0501.00	Foothill 0501.00
Students with a Job Closely Related to their Field of Study	74%	88%	67%	66%	60%	N/A
Median Annual Earnings for SWP Exiting Students	\$53,090	\$73,174	\$33,738	\$40,150	\$42,965	N/A
Median Change in Earnings for SWP Exiting Students	24%	42%	31%	31%	35%	N/A
Exiting Students Who Attained the Living Wage	54%	66%	47%	41%	37%	N/A

Source: Launchboard Strong Workforce Program Median of 2018 to 2021.

Skills, Certifications and Education

Table 9. Top Skills for Marketing Analytics Occupations in Bay Region

Skill	Posting	Skill	Posting
Marketing	14,969	Key Performance Indicators (KPIs)	2,870
Product Management	9,859	Business To Business	2,839
Project Management	5,066	Analytics	2,685
New Product Development	4,913	Data Analysis	2,665
Product Marketing	4,224	Software As A Service (SaaS)	2,617
Go-to-Market Strategy	3,668	Agile Methodology	2,613
Product Strategy	3,188	Social Media	2,498
Product Roadmaps	3,043	Market Research	2,450
Marketing Strategies	2,894	Digital Marketing	2,393
Computer Science	2,876	Finance	2,365

Source: Lightcast

Table 10. Certifications for Marketing Analytics Occupations in Bay Region

Certification	Posting	Certification	Posting
Master of Business Administration (MBA)	2,879	Agile Certification	29
Valid Driver's License	407	Certified Scrum Product Owner	27
Project Management Professional Certification	136	Salesforce Certification	25

Certification	Posting	Certification	Posting
Enterprise Desktop Administrator (Microsoft Certified IT Professional)	91	GIAC Certifications	25
Bachelor of Science In Business	55	Product Certification	22
Project Management Certification	32	Certified In Risk and Information Systems Control	20
Functional Skills Qualification	31		

Source: Lightcast

Table 11. Education Requirements for Marketing Analytics Occupations in Bay Region

Education Level	Job Postings	% of Total
High school or GED	482	2%
Associate degree	391	2%
Bachelor's degree & higher	19,304	96%

Source: Lightcast

Note: 42% of records have been excluded because they do not include a degree level. As a result, the chart above may not be representative of the full sample.

Methodology

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

Sources

O*Net Online

Lightcast

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:

- Leila Jamoosian, Research Analyst, for Bay Area Community College Consortium (BACCC) and Centers of Excellence (COE), leila@baccc.net
- John Carrese, Director, San Francisco Bay Center of Excellence for Labor Market Research, jcarrese@ccsf.edu or (415) 267-6544

MATH F211A : JUST-IN-TIME SUPPORT FOR MATH 1A

Proposal Type

New Course

Effective Term

Summer 2025

Subject

Mathematics (MATH)

Course Number

F211A

Department

Mathematics (MATH)

Division

Science Technology Engineering and Mathematics (1PS)

Units

2.5

Former ID**Cross Listed****Related Courses**

NCBS F411A - JUST-IN-TIME SUPPORT FOR MATH 1A

Maximum Units

2.5

Does this course meet on a weekly basis?

Yes

Weekly Lecture Hours

2.5

Weekly Lab Hours

0

Weekly Out of Class Hours

5

Special Hourly Notation**Total Contact Hours**

30

Total Student Learning Hours

90

Repeatability Statement

Not Repeatable

Credit Status

Credit

Degree Status

Non-Applicable

Is Basic Skills applicable to this course?

Yes

Basic Skills Level

Does Not Apply

Grading

Pass/No Pass Only

Will credit by exam be allowed for this course?

No

Honors

No

Degree or Certificate Requirement

None of the above (Stand Alone course)

Stand Alone

If a Foothill credit course is not part of a state-approved associate's degree, certificate of achievement, or the Foothill 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 that 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.

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

- **Temporary** means the course will be incorporated into a new degree or certificate that is not yet State approved.
- **Permanent** means there are no plans to add the course to a State approved degree or certificate, nor to the Foothill GE pattern.

Please select

Permanent

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:

Basic Skills

Transfer

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 provided in the box below and/or uploaded as an attachment.

Evidence

This course is being created in response to AB 1705.

Attach evidence

AB 1705.pdf

Need/Justification

This course is designed to support students who do not meet the multiple measures placement in MATH 1A. The course provides just-in-time remediation of prerequisite skills necessary for MATH 1A.

Course Description

A just-in-time approach to the core prerequisite skills, competencies, and concepts needed in Calculus I. Intended for students who are concurrently enrolled in MATH 1A at Foothill College and who want extra support in calculus. Topics include: a review of skills developed in precalculus, including developing a knowledge of function families with their graphs and behavior, transformations, average rate of change, inverses, and compositions.

Course Prerequisites

Course Corequisites

Corequisite: MATH 1A.

Course Advisories

Course Objectives

The student will be able to:

1. Explore topics related to developing effective learning skills.
2. Apply topics related to algebraic and transcendental functions.
3. Manipulate and evaluate expressions used to calculate limits and derivatives.
4. Analyze the qualitative behavior of graphs of various algebraic and transcendental functions.
5. Use algebraic and transcendental functions to model real world applications.

Course Content

1. Explore topics related to developing effective learning skills
 1. Learn study skills
 1. Organizational skills
 2. Time management
 3. Test preparation
 4. Test-taking skills
 2. Self-assess using performance criteria to judge and improve one's own work
 1. 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
2. Apply topics related to algebraic and transcendental functions
 1. Function notation
 2. Graphs of base curves and their transformation
 3. Composite and inverse functions
 4. Average rate of change
 5. Piecewise defined functions
 6. Polar and parametric curves
3. Manipulate and evaluate expressions used to calculate limits and derivatives
 1. Difference quotient
 2. Simplifying expressions in the evaluation of limits
 3. Simplifying expressions in the process of differentiation
4. Analyze the qualitative behavior of graphs of various algebraic and transcendental functions
 1. Increasing and decreasing
 2. Local extrema

3. Concavity
4. Points of inflections
5. Use algebraic and transcendental functions to model real world applications
 1. Read and interpret word problems
 2. Related rates
 3. Optimization

Lab Content

Not applicable.

Special Facilities and/or Equipment

1. Access to graphing technology, such as a graphing calculator or graphing software.
2. When taught online/hybrid: Internet access, course management system, specific software related to the course.

Methods of Evaluation

Methods of Evaluation may include but are not limited to the following:

Group and independent exploratory activities
 Homework
 Performance in MATH 1A

Methods of Instruction

Methods of Instruction may include but are not limited to the following:

Group work
 Discussion
 Mini-lectures
 Instructor-guided discovery
 Formative assessment

Representative Text(s)

Author(s)	Title	Publication Date
Boelkins, Matthew	Active Calculus	2023
Strang, Gilbert, and Edwin Herman	Calculus Volume I (Openstax)	2023
Briggs, William, and Lyle Cochran	Calculus: Early Trancedentals, 3rd ed.	2018

Please provide justification for any texts that are older than 5 years

Other Materials

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

1. Problem sets
2. Exploratory activities and/or projects
3. Reading and/or writing assignments

Authorized Discipline(s):

Mathematics

Faculty Service Area (FSA Code)

MATHEMATICS

Taxonomy of Program Code (TOP Code)

1702.00 - Mathematics Skills

Foothill faculty, through our Academic Senate and Curriculum Committee, ask you to consider the Guiding Principles for Equitable CORs document (available at <https://foothill.edu/curriculum/process.html>) while creating or revising this COR.

Please describe how you have incorporated principles of equity during this revision:

March 20, 2024: This class is being created in response to AB 1705 which is addressing equity.

Articulation Office Only

C-ID Notation

IGETC Notation

CSU GE Notation

Transferability

None

Validation Date

3/25/24

Division Dean Only

Seat Count

40

Load

.056

FOAP Codes:

Fund Code

114000 - General Operating- Unrestricted

Org Code

125051 - Mathematics

Account Code

1320

Program Code

170100 - Mathematics, General

MATH F211B : JUST-IN-TIME SUPPORT FOR MATH 1B

Proposal Type

New Course

Effective Term

Summer 2025

Subject

Mathematics (MATH)

Course Number

F211B

Department

Mathematics (MATH)

Division

Science Technology Engineering and Mathematics (1PS)

Units

2.5

Former ID**Cross Listed****Related Courses**

NCBS F411B - JUST-IN-TIME SUPPORT FOR MATH 1B

Maximum Units

2.5

Does this course meet on a weekly basis?

Yes

Weekly Lecture Hours

2.5

Weekly Lab Hours

0

Weekly Out of Class Hours

5

Special Hourly Notation**Total Contact Hours**

30

Total Student Learning Hours

90

Repeatability Statement

Not Repeatable

Credit Status

Credit

Degree Status

Non-Applicable

Is Basic Skills applicable to this course?

Yes

Basic Skills Level

Does Not Apply

Grading

Pass/No Pass Only

Will credit by exam be allowed for this course?

No

Honors

No

Degree or Certificate Requirement

None of the above (Stand Alone course)

Stand Alone

If a Foothill credit course is not part of a state-approved associate's degree, certificate of achievement, or the Foothill 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 that 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.

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

- **Temporary** means the course will be incorporated into a new degree or certificate that is not yet State approved.
- **Permanent** means there are no plans to add the course to a State approved degree or certificate, nor to the Foothill GE pattern.

Please select

Permanent

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:

Basic Skills

Transfer

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 provided in the box below and/or uploaded as an attachment.

Evidence

This course is being created in response to AB 1705.

Attach evidence

AB 1705.pdf

Need/Justification

This course is designed to support students who do not meet the multiple measures placement in MATH 1B. The course provides just-in-time remediation of prerequisite skills necessary for MATH 1B.

Course Description

A just-in-time approach to the core prerequisite skills, competencies, and concepts needed in Calculus II. Intended for students who are concurrently enrolled in MATH 1B at Foothill College and who want extra support in calculus. Topics include: a review of skills developed in precalculus, including advanced algebra manipulations, polar curves and parametric equations, and advanced graphing skills.

Course Prerequisites

Course Corequisites

Corequisite: MATH 1B.

Course Advisories

Course Objectives

The student will be able to:

1. Explore topics related to developing effective learning skills.
2. Apply topics related to algebraic and transcendental functions.
3. Manipulate and evaluate expressions used to find and apply integrals.
4. Apply topics from Calculus I to Calculus II.

Course Content

1. Explore topics related to developing effective learning skills
 1. Learn study skills
 1. Organizational skills
 2. Time management
 3. Test preparation
 4. Test-taking skills
 2. Self-assess using performance criteria to judge and improve one's own work
 1. 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
2. Apply topics related to algebraic and transcendental functions
 1. Graphs of base curves and their transformations
 2. Graphing $x = f(y)$
 3. Solving nonlinear systems in two variables
 4. Polar and parametric curves
3. Manipulate and evaluate expressions used to find and apply integrals
 1. Integration by substitution
 2. Integration by parts
 3. Partial fractions
 4. Trigonometric identities
4. Apply topics from Calculus I to Calculus II
 1. Relationship between a function and its derivative
 2. Techniques of differentiation

Lab Content

Not applicable.

Special Facilities and/or Equipment

1. Access to graphing technology, such as a graphing calculator or graphing software.
2. When taught online/hybrid: Internet access, course management system, specific software related to the course.

Methods of Evaluation

Methods of Evaluation may include but are not limited to the following:

Group and independent exploratory activities
Homework
Performance in MATH 1B

Methods of Instruction

Methods of Instruction may include but are not limited to the following:

Group work
Discussion
Mini-lectures
Instructor-guided discovery
Formative assessment

Representative Text(s)

Author(s)	Title	Publication Date
Boelkins, Matthew	Active Calculus	2023
Strang, Gilbert, and Edwin Herman	Calculus Volume II (Openstax)	2023
Briggs, William, and Lyle Cochran	Calculus: Early Trancedentials, 3rd ed.	2018

Please provide justification for any texts that are older than 5 years

Other Materials

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

1. Problem sets
2. Exploratory activities and/or projects
3. Reading and/or writing assignments

Authorized Discipline(s):

Mathematics

Faculty Service Area (FSA Code)

MATHEMATICS

Taxonomy of Program Code (TOP Code)

1702.00 - Mathematics Skills

Foothill faculty, through our Academic Senate and Curriculum Committee, ask you to consider the Guiding Principles for Equitable CORs document (available at <https://foothill.edu/curriculum/process.html>) while creating or revising this COR.

Please describe how you have incorporated principles of equity during this revision:
March 20, 2024: This class is being created in response to AB 1705 which is addressing equity.

Articulation Office Only

C-ID Notation

IGETC Notation

CSU GE Notation

Transferability

None

Validation Date

3/25/24

Division Dean Only

Seat Count

40

Load

.056

FOAP Codes:

Fund Code

114000 - General Operating- Unrestricted

Org Code

125051 - Mathematics

Account Code

1320

Program Code

170100 - Mathematics, General

MATH F247. : SUPPORT FOR MATH 47

Proposal Type

New Course

Effective Term

Summer 2025

Subject

Mathematics (MATH)

Course Number

F247.

Department

Mathematics (MATH)

Division

Science Technology Engineering and Mathematics (1PS)

Units

3

Former ID**Cross Listed****Related Courses**

NCBS F447. - SUPPORT FOR MATH 47

Maximum Units

3

Does this course meet on a weekly basis?

Yes

Weekly Lecture Hours

3

Weekly Lab Hours

0

Weekly Out of Class Hours

6

Special Hourly Notation**Total Contact Hours**

36

Total Student Learning Hours

108

Repeatability Statement

Not Repeatable

Credit Status

Credit

Degree Status

Non-Applicable

Is Basic Skills applicable to this course?

Yes

Basic Skills Level

Does Not Apply

Grading

Pass/No Pass Only

Will credit by exam be allowed for this course?

No

Honors

No

Degree or Certificate Requirement

None of the above (Stand Alone course)

Stand Alone

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

- **Temporary** means the course will be incorporated into a new degree or certificate that is not yet State approved.
- **Permanent** means there are no plans to add the course to a State approved degree or certificate, nor to the Foothill GE pattern.

Please select

Permanent

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:

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 provided in the box below and/or uploaded as an attachment.

Evidence

This course is being created in response to AB 1705.

Attach evidence

AB 1705.pdf

Need/Justification

This course is being created in response to AB 1705.

Course Description

Core prerequisite skills, competencies, and concepts needed in Path to Calculus. Intended for students who are concurrently enrolled in MATH 47 at Foothill College and who want extra support. Topics include a review of skills, including developing a knowledge of function families with their graphs and behavior, transformations, average rate of change, inverses, and compositions. Family functions include linear, quadratic, and power.

Course Prerequisites

Course Corequisites

Corequisite: MATH 47.

Course Advisories

Course Objectives

The student will be able to:

1. Explore topics related to developing effective learning skills.
2. Graph, analyze, and transform linear, quadratic, piecewise, absolute value, power, and radical functions, and solve and apply related equations and inequalities.
3. Recognize the relationship between functions and their inverses graphically and algebraically.
4. Solve application problems using linear, quadratic, piecewise, power, and radical functions and model real world applications.
5. Understand and compute rates of change.
6. Use technology, such as graphing calculators and/or computer software, to assist in solving problems involving any of the topics in (1) through (5) above.
7. Discuss mathematical problems and write solutions in accurate mathematical language and notation.
8. Interpret mathematical solutions.

Course Content

1. Explore topics related to developing effective learning skills
 1. Learn study skills
 1. Organizational skills
 2. Time management
 3. Test preparation
 4. Test-taking skills
 2. Self-assess using performance criteria to judge and improve one's own work
 1. Analyze and correct errors on one's exam
 2. Self-assess one's understanding of specific mathematical concepts
 3. Develop and execute a plan to deepen understanding
 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
2. Graph, analyze, and transform linear, quadratic, piecewise, absolute value, power, and radical functions, and solve and apply related equations and inequalities
 1. Use function notation
 1. Evaluate functions
 2. Determine a relation vs. a function
 3. Be able to convert words representing function relationships into symbolic and graphical representation
 2. Recognize each function type
 3. Explore the behavior of graphs
 1. Increasing and decreasing

2. Local extrema
4. Find domain and range
5. Transform graphs
 1. Identify and graph the change in a function that results from shifts, reflections, stretches, and compressions
 2. Be able to recognize the change in a graph of a function when a combination of transformations is applied
 3. Understand the concept of symmetry of functions
 4. Odd, even, or neither
6. Compose and combine functions
7. Solve equations and inequalities
3. Recognize the relationship between functions and their inverses graphically and algebraically
 1. Determine whether or not a function as an inverse function
 2. Properties of inverse functions
 3. Notation
4. Solve application problems using linear, quadratic, piecewise, power, and radical functions and model real world applications
 1. Create an appropriate model from a verbal description or graph
 2. Use chosen models to solve application problems
 3. Interpret solutions
5. Understand and compute rates of change
 1. Calculate average rate of change from a table, graph, or an equation
 2. Understand the implications of a function that has a constant or variable rate of change
 3. Interpret the meaning of an average rate of change in the context of a applications
6. Use technology, such as graphing calculators and/or computer software, to assist in solving problems involving any of the topics in (1) through (5) above
 1. Calculator/computer utilities for evaluating problems involving optimization
 2. Calculator/computer utilities for finding zeros or roots of functions
7. Discuss mathematical problems and write solutions in accurate mathematical language and notation
 1. Application problems from other disciplines
 2. Proper notation
8. Interpret mathematical solutions
 1. Explain the significance of solutions to application problems

Lab Content

Not applicable.

Special Facilities and/or Equipment

1. Access to graphing technology, such as a graphing calculator or graphing software
2. When taught online or hybrid:

- a. Internet access
- b. Course management system
- c. Specific software related to the course

Methods of Evaluation

Methods of Evaluation may include but are not limited to the following:

Written homework
 Quizzes and tests

Methods of Instruction

Methods of Instruction may include but are not limited to the following:

Lecture
 Discussion
 Cooperative learning exercises

Representative Text(s)

Author(s)	Title	Publication Date
Boelkins, Matthew	Active Prelude to Calculus	2019
Abramsom, Jay	Precalculus, 2nd ed. (Openstax)	2024

Please provide justification for any texts that are older than 5 years

Other Materials

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

- 1. Problem sets
- 2. Exploratory activities and/or projects
- 3. Reading and/or writing assignments

Authorized Discipline(s):

Mathematics

Faculty Service Area (FSA Code)

MATHEMATICS

Taxonomy of Program Code (TOP Code)

1702.00 - Mathematics Skills

Foothill faculty, through our Academic Senate and Curriculum Committee, ask you to consider the Guiding Principles for Equitable CORs document (available at <https://foothill.edu/curriculum/process.html>) while creating or revising this COR.

Please describe how you have incorporated principles of equity during this revision:

April 23, 2024: We have used free, open source textbooks. This class is being created in response to AB 1705.

Articulation Office Only

C-ID Notation

IGETC Notation

CSU GE Notation

Transferability

None

Validation Date

5/1/24

Division Dean Only

Seat Count

40

Load

.067

FOAP Codes:

Fund Code

114000 - General Operating- Unrestricted

Org Code

125051 - Mathematics

Account Code

1320

Program Code

170100 - Mathematics, General

NCBS F411A : JUST-IN-TIME SUPPORT FOR MATH 1A

Proposal Type

New Course

Effective Term

Summer 2025

Subject

Non-Credit: Basic Skills (NCBS)

Course Number

F411A

Department

Mathematics (MATH)

Division

Science Technology Engineering and Mathematics (1PS)

Units

0

Former ID**Cross Listed****Related Courses**

MATH F211A - JUST-IN-TIME SUPPORT FOR MATH 1A

Maximum Units

0

Does this course meet on a weekly basis?

Yes

Weekly Lecture Hours

2.5

Weekly Lab Hours

0

Weekly Out of Class Hours

0

Special Hourly Notation**Total Contact Hours**

30

Total Student Learning Hours

30

Repeatability Statement

Unlimited Repeatability

Repeatability Criteria

NCBS 411A is a corequisite support course for MATH 1A. Each time a student takes this pair of courses together, NCBS 411A will be used to address the student's current needs for success in MATH 1A.

Credit Status

Non-Credit

Degree Status

Non-Applicable

Is Basic Skills applicable to this course?

Yes

Basic Skills Level

Does Not Apply

Grading

Pass/No Pass Only

Will credit by exam be allowed for this course?

No

Honors

No

Degree or Certificate Requirement

None of the above (Stand Alone course)

Stand Alone

If a Foothill credit course is not part of a state-approved associate's degree, certificate of achievement, or the Foothill 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 that 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.

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

- Temporary means the course will be incorporated into a new degree or certificate that is not yet State approved.
- Permanent means there are no plans to add the course to a State approved degree or certificate, nor to the Foothill GE pattern.

Please select

Permanent

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:

Basic Skills

Transfer

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 provided in the box below and/or uploaded as an attachment.

Evidence

This course is being created in response to AB 1705.

Attach evidence

AB 1705.pdf

Need/Justification

This course is designed to support students who do not meet the multiple measures placement in MATH 1A. The course provides just-in-time remediation of prerequisite skills necessary for MATH 1A.

Course Description

A just-in-time approach to the core prerequisite skills, competencies, and concepts needed in Calculus I. Intended for students who are concurrently enrolled in MATH 1A at Foothill College and who want extra support in calculus. Topics include: a review of skills developed in precalculus, including developing a knowledge of function families with their graphs and behavior, transformations, average rate of change, inverses, and compositions.

Course Prerequisites

Course Corequisites

Corequisite: MATH 1A.

Course Advisories

Course Objectives

The student will be able to:

1. Explore topics related to developing effective learning skills.
2. Apply topics related to algebraic and transcendental functions.
3. Manipulate and evaluate expressions used to calculate limits and derivatives.
4. Analyze the qualitative behavior of graphs of various algebraic and transcendental functions.
5. Use algebraic and transcendental functions to model real world applications.

Course Content

1. Explore topics related to developing effective learning skills
 1. Learn study skills
 1. Organizational skills
 2. Time management
 3. Test preparation
 4. Test-taking skills
 2. Self-assess using performance criteria to judge and improve one's own work
 1. 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
2. Apply topics related to algebraic and transcendental functions
 1. Function notation
 2. Graphs of base curves and their transformation
 3. Composite and inverse functions
 4. Average rate of change
 5. Piecewise defined functions
 6. Polar and parametric curves
3. Manipulate and evaluate expressions used to calculate limits and derivatives
 1. Difference quotient

2. Simplifying expressions in the evaluation of limits
3. Simplifying expressions in the process of differentiation
4. Analyze the qualitative behavior of graphs of various algebraic and transcendental functions
 1. Increasing and decreasing
 2. Local extrema
 3. Concavity
 4. Points of inflections
5. Use algebraic and transcendental functions to model real world applications
 1. Read and interpret word problems
 2. Related rates
 3. Optimization

Lab Content

Not applicable.

Special Facilities and/or Equipment

1. Access to graphing technology, such as a graphing calculator or graphing software.
2. When taught online/hybrid: Internet access, course management system, specific software related to the course.

Methods of Evaluation

Methods of Evaluation may include but are not limited to the following:

Group and independent exploratory activities
 Homework
 Performance in MATH 1A

Methods of Instruction

Methods of Instruction may include but are not limited to the following:

Group work
 Discussion
 Mini-lectures
 Instructor-guided discovery
 Formative assessment

Representative Text(s)

Author(s)	Title	Publication Date
Boelkins, Matthew	Active Calculus	2023
Strang, Gilbert, and Edwin Herman	Calculus Volume I (Openstax)	2023
Briggs, William, and Lyle Cochran	Calculus: Early Trancedentals, 3rd ed.	2018

Please provide justification for any texts that are older than 5 years

Other Materials

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

1. Problem sets
2. Exploratory activities and/or projects
3. Reading and/or writing assignments

Authorized Discipline(s):

Mathematics

Faculty Service Area (FSA Code)

MATHEMATICS

Taxonomy of Program Code (TOP Code)

1702.00 - Mathematics Skills

Foothill faculty, through our Academic Senate and Curriculum Committee, ask you to consider the Guiding Principles for Equitable CORs document (available at <https://foothill.edu/curriculum/process.html>) while creating or revising this COR.

Please describe how you have incorporated principles of equity during this revision:

March 20, 2024: This class is being created in response to AB 1705 which is addressing equity.

Articulation Office Only

C-ID Notation

IGETC Notation

CSU GE Notation

Transferability

None

Validation Date

N/A

Division Dean Only

Seat Count

40

Load

.056

FOAP Codes:

Fund Code

114000 - General Operating- Unrestricted

Org Code

125051 - Mathematics

Account Code

1320

Program Code

170100 - Mathematics, General

NCBS F411B : JUST-IN-TIME SUPPORT FOR MATH 1B

Proposal Type

New Course

Effective Term

Summer 2025

Subject

Non-Credit: Basic Skills (NCBS)

Course Number

F411B

Department

Mathematics (MATH)

Division

Science Technology Engineering and Mathematics (1PS)

Units

0

Former ID**Cross Listed****Related Courses**

MATH F211B - JUST-IN-TIME SUPPORT FOR MATH 1B

Maximum Units

0

Does this course meet on a weekly basis?

Yes

Weekly Lecture Hours

2.5

Weekly Lab Hours

0

Weekly Out of Class Hours

0

Special Hourly Notation**Total Contact Hours**

30

Total Student Learning Hours

30

Repeatability Statement

Unlimited Repeatability

Repeatability Criteria

NCBS 411B is a corequisite support course for MATH 1B. Each time a student takes this pair of courses together, NCBS 411B will be used to address the student's current needs for success in MATH 1B.

Credit Status

Non-Credit

Degree Status

Non-Applicable

Is Basic Skills applicable to this course?

Yes

Basic Skills Level

Does Not Apply

Grading

Pass/No Pass Only

Will credit by exam be allowed for this course?

No

Honors

No

Degree or Certificate Requirement

None of the above (Stand Alone course)

Stand Alone

If a Foothill credit course is not part of a state-approved associate's degree, certificate of achievement, or the Foothill 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 that 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.

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

- **Temporary means the course will be incorporated into a new degree or certificate that is not yet State approved.**

- Permanent means there are no plans to add the course to a State approved degree or certificate, nor to the Foothill GE pattern.

Please select

Permanent

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:

Basic Skills

Transfer

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 provided in the box below and/or uploaded as an attachment.

Evidence

This course is being created in response to AB 1705.

Attach evidence

AB 1705.pdf

Need/Justification

This course is designed to support students who do not meet the multiple measures placement in MATH 1B. The course provides just-in-time remediation of prerequisite skills necessary for MATH 1B.

Course Description

A just-in-time approach to the core prerequisite skills, competencies, and concepts needed in Calculus II. Intended for students who are concurrently enrolled in MATH 1B at Foothill

College and who want extra support in calculus. Topics include: a review of skills developed in precalculus, including advanced algebra manipulations, polar curves and parametric equations, and advanced graphing skills.

Course Prerequisites

Course Corequisites

Corequisite: MATH 1B.

Course Advisories

Course Objectives

The student will be able to:

1. Explore topics related to developing effective learning skills.
2. Apply topics related to algebraic and transcendental functions.
3. Manipulate and evaluate expressions used to find and apply integrals.
4. Apply topics from Calculus I to Calculus II.

Course Content

1. Explore topics related to developing effective learning skills
 1. Learn study skills
 1. Organizational skills
 2. Time management
 3. Test preparation
 4. Test-taking skills
 2. Self-assess using performance criteria to judge and improve one's own work
 1. 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
2. Apply topics related to algebraic and transcendental functions
 1. Graphs of base curves and their transformations
 2. Graphing $x = f(y)$
 3. Solving nonlinear systems in two variables
 4. Polar and parametric curves
3. Manipulate and evaluate expressions used to find and apply integrals
 1. Integration by substitution
 2. Integration by parts
 3. Partial fractions
 4. Trigonometric identities
4. Apply topics from Calculus I to Calculus II
 1. Relationship between a function and its derivative
 2. Techniques of differentiation

Lab Content

Not applicable.

Special Facilities and/or Equipment

1. Access to graphing technology, such as a graphing calculator or graphing software.
2. When taught online/hybrid: Internet access, course management system, specific software related to the course.

Methods of Evaluation

Methods of Evaluation may include but are not limited to the following:

Group and independent exploratory activities
 Homework
 Performance in MATH 1B

Methods of Instruction

Methods of Instruction may include but are not limited to the following:

Group work
 Discussion
 Mini-lectures
 Instructor-guided discovery
 Formative assessment

Representative Text(s)

Author(s)	Title	Publication Date
Boelkins, Matthew	Active Calculus	2023
Strang, Gilbert, and Edwin Herman	Calculus Volume II (Openstax)	2023
Briggs, William, and Lyle Cochran	Calculus: Early Trancedentials, 3rd ed.	2018

Please provide justification for any texts that are older than 5 years

Other Materials**Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments**

1. Problem sets
2. Exploratory activities and/or projects
3. Reading and/or writing assignments

Authorized Discipline(s):

Mathematics

Faculty Service Area (FSA Code)

MATHEMATICS

Taxonomy of Program Code (TOP Code)

1702.00 - Mathematics Skills

Foothill faculty, through our Academic Senate and Curriculum Committee, ask you to consider the Guiding Principles for Equitable CORs document (available at <https://foothill.edu/curriculum/process.html>) while creating or revising this COR.

Please describe how you have incorporated principles of equity during this revision:
March 20, 2024: This class is being created in response to AB 1705 which is addressing equity.

Articulation Office Only

C-ID Notation

IGETC Notation

CSU GE Notation

Transferability

None

Validation Date

N/A

Division Dean Only

Seat Count

40

Load

.056

FOAP Codes:

Fund Code

114000 - General Operating- Unrestricted

Org Code

125051 - Mathematics

Account Code

1320

Program Code

170100 - Mathematics, General

NCBS F447. : SUPPORT FOR MATH 47

Proposal Type

New Course

Effective Term

Summer 2025

Subject

Non-Credit: Basic Skills (NCBS)

Course Number

F447.

Department

Mathematics (MATH)

Division

Science Technology Engineering and Mathematics (1PS)

Units

0

Former ID**Cross Listed****Related Courses**

MATH F247. - SUPPORT FOR MATH 47

Maximum Units

0

Does this course meet on a weekly basis?

Yes

Weekly Lecture Hours

3

Weekly Lab Hours

0

Weekly Out of Class Hours

0

Special Hourly Notation**Total Contact Hours**

36

Total Student Learning Hours

36

Repeatability Statement

Unlimited Repeatability

Repeatability Criteria

NCBS 447 is a corequisite support course for MATH 47. Each time a student takes this pair of courses together, NCBS 447 will be used to address the student's current needs for success in MATH 47.

Credit Status

Non-Credit

Degree Status

Non-Applicable

Is Basic Skills applicable to this course?

Yes

Basic Skills Level

Does Not Apply

Grading

Pass/No Pass Only

Will credit by exam be allowed for this course?

No

Honors

No

Degree or Certificate Requirement

None of the above (Stand Alone course)

Stand Alone

If a Foothill credit course is not part of a state-approved associate's degree, certificate of achievement, or the Foothill 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 that 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.

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

- **Temporary** means the course will be incorporated into a new degree or certificate that is not yet State approved.
- **Permanent** means there are no plans to add the course to a State approved degree or certificate, nor to the Foothill GE pattern.

Please select

Permanent

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:

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 provided in the box below and/or uploaded as an attachment.

Evidence

This course is being created in response to AB 1705.

Attach evidence

AB 1705.pdf

Need/Justification

This course is being created in response to AB 1705.

Course Description

Core prerequisite skills, competencies, and concepts needed in Path to Calculus. Intended for students who are concurrently enrolled in MATH 47 at Foothill College and who want extra support. Topics include a review of skills, including developing a knowledge of function families with their graphs and behavior, transformations, average rate of change, inverses, and compositions. Family functions include linear, quadratic, and power.

Course Prerequisites

Course Corequisites

Corequisite: MATH 47.

Course Advisories

Course Objectives

The student will be able to:

1. Explore topics related to developing effective learning skills.
2. Graph, analyze, and transform linear, quadratic, piecewise, absolute value, power, and radical functions, and solve and apply related equations and inequalities.
3. Recognize the relationship between functions and their inverses graphically and algebraically.
4. Solve application problems using linear, quadratic, piecewise, power, and radical functions and model real world applications.
5. Understand and compute rates of change.
6. Use technology, such as graphing calculators and/or computer software, to assist in solving problems involving any of the topics in (1) through (5) above.
7. Discuss mathematical problems and write solutions in accurate mathematical language and notation.
8. Interpret mathematical solutions.

Course Content

1. Explore topics related to developing effective learning skills
 1. Learn study skills
 1. Organizational skills
 2. Time management
 3. Test preparation
 4. Test-taking skills
 2. Self-assess using performance criteria to judge and improve one's own work
 1. Analyze and correct errors on one's exam
 2. Self-assess one's understanding of specific mathematical concepts
 3. Develop and execute a plan to deepen understanding
 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
2. Graph, analyze, and transform linear, quadratic, piecewise, absolute value, power, and radical functions, and solve and apply related equations and inequalities
 1. Use function notation
 1. Evaluate functions
 2. Determine a relation vs. a function
 3. Be able to convert words representing function relationships into symbolic and graphical representation
 2. Recognize each function type

3. Explore the behavior of graphs
 1. Increasing and decreasing
 2. Local extrema
4. Find domain and range
5. Transform graphs
 1. Identify and graph the change in a function that results from shifts, reflections, stretches, and compressions
 2. Be able to recognize the change in a graph of a function when a combination of transformations is applied
 3. Understand the concept of symmetry of functions
 4. Odd, even, or neither
6. Compose and combine functions
7. Solve equations and inequalities
3. Recognize the relationship between functions and their inverses graphically and algebraically
 1. Determine whether or not a function as an inverse function
 2. Properties of inverse functions
 3. Notation
4. Solve application problems using linear, quadratic, piecewise, power, and radical functions and model real world applications
 1. Create an appropriate model from a verbal description or graph
 2. Use chosen models to solve application problems
 3. Interpret solutions
5. Understand and compute rates of change
 1. Calculate average rate of change from a table, graph, or an equation
 2. Understand the implications of a function that has a constant or variable rate of change
 3. Interpret the meaning of an average rate of change in the context of a applications
6. Use technology, such as graphing calculators and/or computer software, to assist in solving problems involving any of the topics in (1) through (5) above
 1. Calculator/computer utilities for evaluating problems involving optimization
 2. Calculator/computer utilities for finding zeros or roots of functions
7. Discuss mathematical problems and write solutions in accurate mathematical language and notation
 1. Application problems from other disciplines
 2. Proper notation
8. Interpret mathematical solutions
 1. Explain the significance of solutions to application problems

Lab Content

Not applicable.

Special Facilities and/or Equipment

1. Access to graphing technology, such as a graphing calculator or graphing software
2. When taught online or hybrid:
 - a. Internet access
 - b. Course management system
 - c. Specific software related to the course

Methods of Evaluation

Methods of Evaluation may include but are not limited to the following:

Written homework
Quizzes and tests

Methods of Instruction

Methods of Instruction may include but are not limited to the following:

Lecture
Discussion
Cooperative learning exercises

Representative Text(s)

Author(s)	Title	Publication Date
Boelkins, Matthew	Active Prelude to Calculus	2019
Abramsom, Jay	Precalculus, 2nd ed. (Openstax)	2024

Please provide justification for any texts that are older than 5 years

Other Materials

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

1. Problem sets
2. Exploratory activities and/or projects
3. Reading and/or writing assignments

Authorized Discipline(s):

Mathematics

Faculty Service Area (FSA Code)

MATHEMATICS

Taxonomy of Program Code (TOP Code)

1702.00 - Mathematics Skills

Foothill faculty, through our Academic Senate and Curriculum Committee, ask you to consider the Guiding Principles for Equitable CORs document (available at <https://foothill.edu/curriculum/process.html>) while creating or revising this COR.

Please describe how you have incorporated principles of equity during this revision:

April 23, 2024: We have used free, open source textbooks. This class is being created in response to AB 1705.

Articulation Office Only

C-ID Notation

IGETC Notation

CSU GE Notation

Transferability

None

Validation Date

N/A

Division Dean Only

Seat Count

40

Load

.067

FOAP Codes:

Fund Code

114000 - General Operating- Unrestricted

Org Code

125051 - Mathematics

Account Code

1320

Program Code

170100 - Mathematics, General

**AB-1705 Seymour-Campbell Student Success Act of 2012: matriculation: assessment.** (2021-2022)

SHARE THIS:



Date Published: 10/03/2022 02:00 PM

Assembly Bill No. 1705**CHAPTER 926**

An act to amend Section 78213 of, and to add Sections 78212.5 and 78213.1 to, the Education Code, relating to community colleges.

[Approved by Governor September 30, 2022. Filed with Secretary of State September 30, 2022.]

LEGISLATIVE COUNSEL'S DIGEST

AB 1705, Irwin. Seymour-Campbell Student Success Act of 2012: matriculation: assessment.

(1) Existing law establishes the California Community Colleges, under the administration of the Board of Governors of the California Community Colleges, as one of the segments of public postsecondary education in this state. Existing law, the Seymour-Campbell Student Success Act of 2012, provides that the purpose of the act is to increase California community college student access and success by providing effective core matriculation services of orientation, assessment and placement, counseling, and other education planning services, and academic interventions. The act requires a community college district or community college to maximize the probability that students will enter and complete transfer-level coursework in English and mathematics within one-year.

This bill would, among other things, instead require a community college district or community college to maximize the probability that students will enter and complete transfer-level coursework in English and mathematics within a one-year timeframe of their initial attempt in the discipline, and for a student with a declared academic goal, that the transfer-level coursework satisfies the English and mathematics coursework requirements of the intended certificate or associate degree, or a requirement for transfer within the intended major, within a one-year timeframe of their initial attempt in the discipline. By July 1, 2023, if a community college places and enrolls a student into transfer-level mathematics or English coursework that does not satisfy a requirement for the student's intended certificate or associate degree, or a requirement for transfer within the intended major, the bill would require the community college to verify the benefit of the coursework to the student, as specified.

(2) The act requires community college districts or community colleges to use, in the placement of students into English and mathematics courses in order to achieve this goal, one or more of the following: high school coursework, high school grades, and high school grade point average. The act requires colleges to apply multiple measures in the placement of all students to ensure that either low performance on one measure may be offset by high performance on another measure or that the student can demonstrate preparedness based on any one measure and authorizes the Board of Governors of the California Community Colleges to establish regulations governing these and other measures, instruments, and placement models that achieve this goal.

This bill would require that high school transcript data be used as the primary means for determining placement in transfer-level English and transfer-level mathematics courses and that self-reported high school information be used if there are issues with obtaining or using high school transcript data, as specified. The bill would limit the use of multiple measures and the enrollment into noncredit coursework by colleges in the placement and enrollment of students, as provided. The bill would require the board of governors to establish those placement regulations to

achieve the placement goal. The bill would prohibit a community college district or community college from recommending or requiring students to enroll in pretransfer level English or mathematics coursework, except under specified circumstances.

(3) This bill would require all new and continuing United States high school graduate students and those who have been issued a high school equivalency certificate, who plan to pursue a certificate, degree, or transfer program offered by a California community college, to be directly placed into, and, when beginning coursework in English or mathematics, enrolled in, transfer-level English and mathematics, as provided. By July 1, 2023, the bill would prohibit a community college district or community college from using specified factors as justification for placing a student in a pretransfer-level course.

(4) This bill would require the office of the Chancellor of the California Community Colleges, beginning July 1, 2023, to make available on its internet website a dashboard containing multiyear data, beginning from 2015, and updated annually, containing data submitted to the chancellor's office by community colleges on student progression and completion of transfer-level English, mathematics, and English-as-a-second-language courses, disaggregated by college and subgroup, as provided. The bill would require, beginning December 1, 2024, and annually thereafter, the chancellor's office to inform certain legislative committees of the update to the dashboard, as specified.

(5) To the extent this bill would impose additional duties on community college districts and community colleges, the bill would impose a state-mandated local program.

(6) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

(7) This bill would make Legislative findings and declarations, and state the intent of the Legislature, relative to these provisions.

Vote: majority Appropriation: no Fiscal Committee: yes Local Program: yes

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. The Legislature finds and declares all of the following:

(a) Research has consistently demonstrated that when students are placed and enrolled directly into transfer-level written communication and quantitative reasoning courses, completion of transfer-level coursework in those disciplines is expedited and persistent opportunity gaps in completion of those courses are diminished.

(b) As a result of reforms resulting from amendments to Section 78213 of the Education Code made by Assembly Bill 705 of the 2017–18 Regular Session, significant progress has been made in the number of community college students enrolling directly into transfer-level English and mathematics courses and successfully completing those courses. One-year completion of transfer-level courses increased from 49 percent to 67 percent in English, and from 26 percent to 50 percent in mathematics, from fall 2015 to fall 2019.

(c) Research by the RP Group and the Chancellor's Office's Transfer-Level Gateway Completion Dashboard documented significant gains in enrollment and completion of transfer-level mathematics and English coursework for every special population examined, including economically disadvantaged students, foster youth, veterans, and students participating in programs for the disabled.

(d) In fall 2020, community colleges continued to implement Assembly Bill 705 in the face of COVID-19, with steady rates of direct enrollment into transfer-level mathematics and some improvement in the successful completion of transfer-level mathematics courses relative to the previous year.

(e) The Public Policy Institute of California found a strong correlation between increases in student completion of transfer-level mathematics and English and the extent to which the college has expanded students' direct enrollment into transfer-level courses. They wrote, "it is an important finding that a single variable, within the direct control of colleges, is associated so strongly with improvements in completion."

(f) Assembly Bill 705's reforms made great strides in addressing longstanding racial inequity in both access to, and completion of, transfer-level mathematics and English. Black, Latinx, and Pacific Islander students achieved the largest gains in completion of transfer-level courses in fall 2019 relative to fall 2015 and surpassed the fall 2015 rates of transfer-level completion for White students. Still, equity gaps remain in direct transfer-level enrollment and completion.

(g) In fall 2021, the Chancellor's Office of the California Community Colleges found that students are much less likely

to complete transfer-level English and mathematics courses within a one-year timeframe when local placement practices require, encourage, or allow those students to enroll in pretransfer-level coursework.

(h) Implementation is uneven and some colleges increased pretransfer-level offerings in fall 2020.

(i) In fall 2020 at one in five colleges, a third or more of students were enrolled in pretransfer-level mathematics.

(j) Research in California and Florida shows that even when pretransfer-level courses are optional, Black, Latinx, and Pacific Islander students are more likely than their White or Asian peers to end up enrolling in pretransfer-level courses.

(k) Efforts to reform placement practices and expedite completion of transfer-level English and mathematics requirements are consistent with the California Community Colleges Vision for Success goal of reducing the units to earn a degree, time to completion or transfer, and cost of college.

(l) Pretransfer-level mathematics and English courses may be appropriate to meet the needs of a defined student population in order to achieve the broader community college mission or if these courses are shown to be the best option to help students progress toward their academic goals.

SEC. 2. Section 78212.5 is added to the Education Code, to read:

78212.5. It is the intent of the Legislature that, pursuant to Sections 78213 and 78213.1, all of the following are satisfied:

(a) All United States high school graduate students and those who have received a high school equivalency certificate, regardless of background or special population status, who plan to pursue a certificate, degree, or transfer program offered by the California Community Colleges, shall be directly placed into, and, when beginning coursework in English or mathematics, shall be enrolled in, transfer-level English and mathematics courses if their program requires mathematics or English.

(b) California community colleges shall place and enroll students into transfer-level mathematics or English coursework that satisfies a requirement of the student's intended certificate or associate degree or a requirement for transfer within their intended major.

(c) When the California State University and University of California systems require mathematics or English prerequisites, both of the following apply:

(1) Community colleges shall determine the methods of fulfilling the prerequisite, whether it be through high school coursework, completion of corequisite coursework or concurrent support activity, credit by examination, credit for prior learning, or multiple measures placement into, or completion of, a course with the same or higher prerequisite.

(2) The California State University shall, and the University of California is requested to, work collaboratively with the California Community Colleges to maintain articulation of courses successfully completed at the California Community Colleges.

(d) California community colleges create the largest opportunities possible for access to transfer-level courses, ensure the greatest enrollment possible into those courses, and provide students the support they need to perform well and be successful in completing those courses.

(e) In order to protect the rights of students with disabilities to fully benefit from participation in postsecondary educational programs, students with documented disabilities shall retain access to educational assistance classes, as described in Section 56028 of Title 5 of the California Code of Regulations, that are offered to students who otherwise would not be able to benefit from general college classes even with appropriate academic adjustments, auxiliary aids, and services.

(f) Notwithstanding this article, community colleges remain responsible for implementing state and federal laws pertaining to funding and providing services to students with disabilities, including, but not limited to, Chapter 14 (commencing with Section 67300) of Part 40 of Division 5, the federal Rehabilitation Act of 1973 (29 U.S.C. Sec. 701 et seq.), as amended, and the federal Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.), as amended.

SEC. 3. Section 78213 of the Education Code is amended to read:

78213. (a) A community college district or community college shall not use any assessment instrument for the purposes of this article without the authorization of the board of governors. The board of governors may adopt a list of authorized assessment instruments.

(b) The board of governors shall review all assessment instruments and shall consider for approval those that meet all

of the following requirements:

- (1) Assessment instruments shall meet established standards of validity and reliability.
- (2) Assessment instruments shall be sensitive to cultural and language differences between students, and shall be adapted as necessary to accommodate students with disabilities.
- (3) Assessment instruments shall be used solely as an advisory tool to assist students in the selection of appropriate courses.
- (4) Assessment instruments shall not be used to exclude students from admission to community colleges.

(c) (1) A community college district or community college shall maximize the probability that a student will enter and complete transfer-level coursework in English and mathematics within a one-year timeframe of their initial attempt in the discipline. For a student with a declared academic goal, the transfer-level coursework shall satisfy the English and mathematics course requirements of the intended certificate or associate degree, or a requirement for transfer within the intended major, within a one-year timeframe of their initial attempt in the discipline.

(2) Community colleges shall use, in the placement and enrollment of students into English and mathematics courses in order to achieve this goal, one or more of the following measures:

- (A) High school coursework.
- (B) High school grades.
- (C) High school grade point average.

(3) When using multiple measures, colleges shall apply multiple measures in the placement and enrollment of all students in such a manner that all of the following occur:

- (A) Low performance on one measure shall be offset by a higher performance on another measure.
- (B) Multiple measures shall be used to increase a student's placement recommendation and shall not be used to lower it.
- (C) Any one measure may demonstrate a student's preparedness for transfer-level coursework.
- (D) The multiple measures placement shall not require students to repeat coursework that they successfully completed in high school or college or for which they demonstrated competency through other methods of credit for prior learning.
- (E) The multiple measures placement gives students access to a transfer-level course that will satisfy a requirement for the intended certificate or associate degree, or a requirement for transfer within the intended major.

(4) For the purposes of this subdivision, using high school grade point average as a composite of student performance over multiple years of high school coursework is a sufficient use of multiple evidence-based measures.

(5) Community colleges shall use multiple evidence-based measures for placing students into English-as-a-second-language (ESL) coursework. For those students placed into credit ESL coursework, their placement should maximize the probability that they will complete degree and transfer requirements in English within three years.

(6) High school transcript data shall be used as the primary means for determining placement in English and mathematics courses. When high school transcript data is difficult to obtain, logistically problematic to use, or not available, a community college district or community college shall use self-reported high school information.

(7) (A) For students who have not graduated from high school, or for high school graduates unable to provide self-reported high school information, community colleges may use guided placement or self-placement.

(B) The placement and enrollment resulting from the guided or self-placement method shall maximize the probability that students enter and complete transfer-level mathematics and English coursework that satisfies a requirement of the intended certificate or associate degree or a requirement for transfer within the intended major, within a one-year timeframe of their initial attempt in the discipline.

(C) A community college may use guided placement or self-placement to direct English language learners who are not United States high school graduates into credit ESL programs and shall maximize the probability that students in credit ESL programs enter and complete transfer-level English within a timeframe of three years.

(D) District placement methods based upon guided placement, including self-placement, shall not do either of the following:

(i) Incorporate sample problems, assignments, assessment instruments, or tests, including those designed for skill assessment.

(ii) Request students to solve problems, answer curricular questions, present demonstrations and examples of coursework designed to show knowledge or mastery of prerequisite skills, or demonstrate skills through tests or surveys.

(8) The board of governors shall establish regulations governing the use of these and other measures, instruments, and placement models to ensure that the measures, instruments, and placement models selected by a community college demonstrate that they guide English and mathematics placements and enrollment to achieve the goal of maximizing the probability that a student will enter and complete transfer-level coursework in English and mathematics that satisfies a requirement of the intended certificate or associate degree or a requirement for transfer within the intended major within a one-year timeframe and credit ESL students will complete transfer-level coursework in English within a timeframe of three years.

(9) A community college district or community college shall maximize the probability that a student will enter and complete college-level coursework in English and mathematics within a one-year timeframe that for students who seek a goal other than transfer, and who are in certificate or degree programs with specific mathematics and English requirements, as determined by the program's advisory board or accrediting body, that cannot be met with transfer-level coursework.

(10) Programs without mathematics or English requirements are exempt from this subdivision.

(d) A community college district or community college shall not recommend or require students to enroll in pretransfer-level English or mathematics coursework unless both of the following are true:

(1) The student is highly unlikely to succeed in a transfer-level English or mathematics course based on their high school grade point average and coursework.

(2) The enrollment in pretransfer-level coursework will improve the student's probability of completing transfer-level coursework in English and mathematics within a one-year timeframe or, for credit ESL students, completing transfer-level coursework in English within a three-year timeframe.

(e) (1) By July 1, 2023, if a community college places and enrolls students into transfer-level mathematics or English coursework that does not satisfy a requirement for the student's intended certificate or associate degree, or a requirement for transfer within the intended major, the community college shall show both of the following to verify the benefit of the coursework to students:

(A) The student is highly unlikely to succeed in a transfer-level English or mathematics course that satisfies a requirement for the intended certificate or associate degree, or a requirement for transfer within the intended major.

(B) The enrollment will improve the student's probability of completing transfer-level mathematics or English coursework that satisfies a requirement for the intended certificate or associate degree, or a requirement for transfer within the intended major, within a one-year timeframe.

(2) If the benefit of the coursework, as described in paragraph (1), is not verified, the college shall not recommend or require students to enroll in that course after July 1, 2024, and shall notify students who continue to enroll in the course that it is optional and does not improve their chances of completing subsequent coursework that satisfies a requirement for their intended certificate or associate degree, or a requirement for transfer within their intended major.

(f) (1) By July 1, 2024, for calculus-based associate degrees or transfer majors in science, technology, engineering, and mathematics (STEM), community colleges shall examine the impact of placing and enrolling students into transfer-level course sequences, composed of no more than two transfer-level courses, that prepare students for the first STEM calculus course, in order to verify the benefit of the coursework to students by showing all of the following:

(A) The student is highly unlikely to succeed in the first STEM calculus course without the additional transfer-level preparation.

(B) The enrollment will improve the student's probability of completing the first STEM calculus course.

(C) The enrollment will improve the student's persistence to and completion of the second calculus course in the STEM program, if a second calculus course is required.

(2) If the benefit of the coursework, as described in paragraph (1), is not verified, the college shall not recommend or require students to enroll in that course after July 1, 2025, and shall notify students who continue to enroll in the course that it is optional and does not improve their chances of completing calculus for their STEM program.

(g) Community colleges are encouraged to explore the impact of concurrent support for the first STEM calculus course as an alternative to transfer-level preparatory courses that are not part of the STEM degree or transfer coursework for the STEM major.

(h) By July 1, 2023, a community college district or community college, when considering the placement and enrollment of a student into transfer-level English and mathematics, shall not rely upon any of the following as a justification for placing and enrolling a student into pretransfer-level mathematics or English coursework or into transfer-level mathematics or English coursework that does not satisfy a requirement for the student's intended certificate or associate degree, or a requirement for transfer within the intended major:

(1) The length of time between a student's enrollment date at the community college and the student's high school graduation date.

(2) Whether the student belongs to a special population, including, but not limited to, foster youth, veterans, economically disadvantaged students or those students who participate in extended opportunity programs and services, participants in disability services and programs for students, and students in Umoja, Puente, or Mathematics, Engineering, Science Achievement (MESA) programs.

(3) Whether the student can provide a high school transcript, self-reports high school information, or uses self-placement or guided placement.

(i) (1) By July 1, 2023, all United States high school graduates, and those who have received a high school equivalency certificate, regardless of background or special population status, who plan to pursue a certificate, degree, or transfer program offered by the California Community Colleges, shall be directly placed into, and, when beginning coursework in English or mathematics, enrolled in, transfer-level English and mathematics courses.

(2) If the student has a declared academic goal, the mathematics and English coursework shall satisfy a requirement of the student's intended certificate or associate degree or a requirement for transfer within the intended major.

(3) A community college shall not require students to repeat coursework that they have successfully completed in high school or college or take coursework that repeats competencies that the student has demonstrated through other methods of credit for prior learning.

(4) A community college shall not enroll into noncredit coursework students who have graduated from a United States high school or been issued a high school equivalency certificate, as a substitute or replacement for direct placement and enrollment into transfer-level English and mathematics coursework as described in paragraph (1) of subdivision (c).

(j) The following are exceptions to transfer-level placement and enrollment into mathematics and English coursework, as described in subdivision (i):

(1) Students who have not graduated from a United States high school or been issued a high school equivalency certificate.

(2) Students enrolled in a certificate program without English or mathematics requirements.

(3) Students enrolled in a noncredit ESL course who have not graduated from a United States high school or been issued a high school equivalency certificate.

(4) Students with documented disabilities in educational assistance classes, as described in Section 56028 of Title 5 of the California Code of Regulations, who are otherwise not able to benefit from general college classes even with appropriate academic adjustments, auxiliary aids, and services.

(5) Students enrolled in adult education programs who have not graduated from a United States high school or been issued a high school equivalency certificate.

(6) Students enrolled in adult education programs who are enrolled in coursework other than mathematics or English.

(7) Current high school students in dual enrollment or taking courses not available in their local high school.

(8) The community college has provided local research and data pursuant to subdivisions (e) and (f) to verify the benefit of the placement and enrollment into transfer-level coursework that does not satisfy a requirement for the intended certificate or associate degree or a requirement for transfer within the intended major.

(9) College-level placement and enrollment in lieu of transfer-level placement and enrollment may occur for:

(A) Students in career technical programs seeking a certificate or associate degree with specific requirements, as

dictated by the program's advisory or accrediting body, that cannot be satisfied with transfer-level coursework

(B) Specific subgroups of students for whom a community college district or community college has provided local research and data meeting the evidence standards pursuant to subdivisions (e) and (f) that allow for the placement and enrollment of the student subgroup into pretransfer-level mathematics or English coursework.

(k) (1) For students who need or desire extra academic support when enrolled in transfer-level mathematics or English coursework, community colleges shall provide access to tutoring, support-enhanced transfer-level mathematics and English courses, concurrent low-unit credit or similar contact hour noncredit corequisite coursework for transfer-level mathematics and English, or other academic supports.

(2) A community college may require students to enroll in additional concurrent support, including additional language support for ESL students, during the same term that they take a transfer-level English or mathematics course, if it is determined that the support will increase the student's likelihood of passing the transfer-level English or mathematics course.

(3) Nothing in this subdivision shall be construed as limiting student access to additional concurrent support nor requiring students to enroll into concurrent supports.

(l) The Chancellor's Office of the California Community Colleges may require a community college or community college district to change or adopt a placement policy or practice identified by the chancellor's office to ensure that a community college or community college district's placement and enrollment of students into mathematics, English, and ESL is consistent with the requirements of this section.

(m) Nothing in this section is meant to add mathematics and English requirements to certificate programs that do not have mathematics or English requirements.

(n) For purposes of this section, the following definitions apply:

(1) "Assessment" means the process of gathering information about a student regarding the student's study skills, English language proficiency, computational skills, aptitudes, goals, learning skills, career aspirations, academic performance, and need for special services. Assessment methods may include, but not necessarily be limited to, interviews, standardized tests, attitude surveys, vocational or career aptitude and interest inventories, high school or postsecondary transcripts, specialized certificates or licenses, educational histories, and other measures of performance.

(2) "Pretransfer level," with respect to courses, includes basic skills, remedial, and college-level courses.

(3) "Transfer-level written communication" and "transfer-level quantitative reasoning" have the same meaning as transfer-level English and transfer-level mathematics, respectively.

SEC. 4. Section 78213.1 is added to the Education Code, to read:

78213.1. (a) Beginning July 1, 2023, the Chancellor's Office of the California Community Colleges shall make available on its internet website a dashboard containing multiyear data, beginning from 2015. The dashboard shall be updated annually pursuant to subdivision (b) and shall contain data submitted to the chancellor's office by community colleges on student progression and completion of transfer-level English, mathematics, and ESL courses, disaggregated by community college and by all the following:

(1) Age group.

(2) Whether the student received corequisite support.

(3) Receipt of disability services and programs for students.

(4) Receipt of extended opportunity programs and services.

(5) Ethnicity.

(6) Foster youth status.

(7) Gender.

(8) Discipline-relevant high school performance bands.

(9) Mathematics, Engineering, Science Achievement (MESA) program students.

(10) Puente students.

(11) Umoja students.

(12) Veteran status.

(b) Beginning on December 1, 2024, and annually thereafter, the chancellor's office shall update the dashboard, as established in subdivision (a), and inform the Assembly Committee on Higher Education, the Assembly Budget Subcommittee on Education Finance, the Senate Committee on Education, and the Senate Budget and Fiscal Review Subcommittee on Education of the update.

SEC. 5. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

SPAN F051C : SPANISH FOR HEALTH CARE WORKERS III

Proposal Type

New Course

Effective Term

Summer 2025

Subject

Spanish (SPAN)

Course Number

F051C

Department

Spanish (SPAN)

Division

Language Arts (1LA)

Units

3

Former ID

Cross Listed

Related Courses

Maximum Units

3

Does this course meet on a weekly basis?

Yes

Weekly Lecture Hours

3

Weekly Lab Hours

0

Weekly Out of Class Hours

6

Special Hourly Notation

Total Contact Hours

36

Total Student Learning Hours

108

Repeatability Statement

Not Repeatable

Credit Status

Credit

Degree Status

Applicable

Is Basic Skills applicable to this course?

No

Grading

Letter Grade (Request for Pass/No Pass)

Will credit by exam be allowed for this course?

No

Honors

No

Degree or Certificate Requirement

None of the above (Stand Alone course)

Stand Alone

If a Foothill credit course is not part of a state-approved associate's degree, certificate of achievement, or the Foothill 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 that 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.

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

- Temporary means the course will be incorporated into a new degree or certificate that is not yet State approved.
- Permanent means there are no plans to add the course to a State approved degree or certificate, nor to the Foothill GE pattern.

Please select

Permanent

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:

Workforce/CTE

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 provided in the box below and/or uploaded as an attachment.

Evidence

This is a specialized course targeting medical personnel and health care workers at large and it aims to provide language skills to talk with native speakers seeking health care.

Attach evidence

Need/Justification

This course addresses an occupational need for medical Spanish for students in bio-health sciences and related careers.

Course Description

This advanced course is a continuation of SPAN 51B. The course enhances the student's understanding of the material studied in SPAN 51B and expands their knowledge of Spanish grammar and vocabulary related to health care. This course also introduces a series of new scenarios in which the student will practice their new medical vocabulary and grammar.

Course Prerequisites

Course Corequisites

Course Advisories

Advisory: SPAN 2 or 51B.

Course Objectives

The student will be able to:

1. Express opinions, agree or disagree with a course of medical treatments, and give commands using the subjunctive tense.
2. Demonstrate a better understanding of cultural differences related to health in the Latino community.
3. Prescribe a course of treatment and provide instructions and directives.

Course Content

1. Acquire grammatical competency to prescribe a course of treatment, express opinions about a patient's past and present health conditions, and hypothesize about possible outcomes of medical treatment
 1. Present subjunctive and formal commands
2. Gain competence in specialized medical terminology and vocabulary related to emergencies, urgent care, prenatal and natal care, high blood pressure, and diabetes
 1. Birth control, prenatal and natal care
 2. Victims of rape, car accidents, sports injuries, burns, etc.
 3. Diabetes
 4. Blood pressure
 5. Myocardial infarction or cerebrovascular thrombosis
3. Understand cultural differences as they relate to health, and increase the students' cultural sensitivity in working with patients from the Latino community

Lab Content

Not applicable.

Special Facilities and/or Equipment

1. When taught on campus: no special facilities or equipment needed.
2. When taught virtually: ongoing access to a computer, internet and email.

Methods of Evaluation

Methods of Evaluation may include but are not limited to the following:

Written exams and quizzes

Role-play oral exams

Small group work/presentations

Methods of Instruction

Methods of Instruction may include but are not limited to the following:

Lecturing

Methods of Instruction may include but are not limited to the following:

Student role-play situations that are common in a medical setting using the grammatical structures discussed in class

Representative Text(s)

Author(s)	Title	Publication Date
Ríos, Joanna, et. al.	Complete Medical Spanish, Premium 4th ed.	2021

Please provide justification for any texts that are older than 5 years

Other Materials

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

1. For further research, the students may read, summarize, and present articles pertaining to health issues in the Latino community, such as:
 1. The pages of the CDC in Spanish
 2. The California Department of Public Health: <https://www.cdph.ca.gov/>
 3. View the PBS documentary, "Unnatural causes: is inequality making us sick?": <https://unnaturalcauses.org/>
2. Students working on volunteering in a health care setting will use their daily experience to journal entries and opportunities for in-class discussion

Authorized Discipline(s):

Foreign Languages

Faculty Service Area (FSA Code)

SPANISH

Taxonomy of Program Code (TOP Code)

1105.00 - Spanish

Foothill faculty, through our Academic Senate and Curriculum Committee, ask you to consider the Guiding Principles for Equitable CORs document (available at <https://foothill.edu/curriculum/process.html>) while creating or revising this COR.

Please describe how you have incorporated principles of equity during this revision:

May 2024: This course aims to debunk stereotypes and misconceptions about the Hispanic/Latino community in the United States related to health conditions, treatments and ways in which this particular community faces illnesses and physical ailments.

[Articulation Office Only](#)

C-ID Notation

IGETC Notation

CSU GE Notation

Transferability

CSU

Validation Date

5/16/24

Division Dean Only

Seat Count

35

Load

.067

FOAP Codes:

Fund Code

114000 - General Operating- Unrestricted

Org Code

123059 - FH-Spanish (SPAN)

Account Code

1320

Program Code

110500 - Spanish

FOOTHILL GENERAL EDUCATION

Area	Subject	Courses
1	English Communication, Oral Communication & Critical Thinking English Composition Oral Communication & Critical Thinking	1 course 1 course
2	Mathematical Concepts & Quantitative Reasoning	1 course
3	Arts & Humanities	1 course
4	Social & Behavioral Sciences	1 course
5	Natural Sciences w/ Lab	1 course
6	Ethnic Studies	1 course
7	Lifelong Learning	1 course
Total Courses		8 courses

FOOTHILL COLLEGE
GENERAL EDUCATION REQUIREMENTS for A.A./A.S. DEGREE
Effective Summer 2024 through Spring 2025

This GE pattern is intended for students pursuing a Foothill College AA or AS degree. It is not for students pursuing an Associate Degree for Transfer (AA-T or AS-T). Students planning to earn an AA-T or AS-T must complete either the IGETC or CSU GE pattern.

The requirements for the A.A. or A.S. degree include completion of:

- a minimum of 90 units in prescribed courses
- a minimum of 18 units completed at Foothill College
- a minimum proficiency required for both English and Math (Please see below)
- Graduation Requirement: One course in Ethnic Studies (Please see below)
- a grade point average of 2.0 or better in all college courses
- a major of at least 27 units in an approved curriculum
- the seven General Education requirements listed below- minimum of 30 units to be completed (courses listed in two areas may be only applied to one)
- major courses completed with a 2.0 or better (some majors require a grade of "C" or better in all major courses)

See Foothill Catalog for the Advanced Placement (AP) credit policy.

AREA I. HUMANITIES Complete one course	Completed
ART 1, 2A, 2AH, 2B, 2BH, 2C, 2D, 2E, 2F, 2J, 4A, 4G, 5A, 5B, 20, 45B; BUSI 70; CRWR 6, 25A, 39A, 41A; DANC 10; ENGL 5, 7, 10A, 12, 12A, 14, 16, 17, 22, 24, 27G, 31, 34C, 37, 38, 40, 43A, 43AH, 43B, 43BH, 45A, 45AH, 45B, 45BH, 49; ETHN 1, 2, 3, 4, 5, 7; GID 1; HUMN 1, 1H, 2, 3, 3H, 4, 4H, 5, 5H, 6, 7, 7H, 8, 9, 10, 11, 11H, 13, 14; JAPN 14A, 14B; KINS 5; MDIA 1, 1H, 2A, 2B, 2C, 11, 11H, 13; MUS 1, 2A, 2AH, 2B, 2BH, 2C, 2CH, 2D, 2F, 8, 8H, 11D, 11E; PHIL 2, 4, 11, 20A, 20B, 24, 25; PHOT 5, 8, 8H, 10, 10H, 11, 11H; SPAN 4, 5, 6;; THTR 1, 2A, 2F, 8, 26.	
AREA II. ENGLISH (a letter grade of "C" or better required) Complete one or two courses. By completing AREA II, minimum proficiency for ENGL will be satisfied	Completed
ENGL 1A, 1AH; ESLL 26	
AREA III. NATURAL SCIENCES Complete one course with lab	Completed
ANTH 1 w/1L, 1H w/1HL, 13 w/13L; ASTR 10A w/10L, 10B w/10L, 10BH w/10L; BIOL 9 w/9L, 10, 13, 14, 15, 41; CHEM 1A, 25, 30A; GEOG 1; HORT 15; PHYS 2A, 4A; PSE 20.	
AREA IV. SOCIAL AND BEHAVIORAL SCIENCES Complete one course	Completed
ANTH 2A, 2AH, 2B, 3, 5, 5H, 8, 8H, 12, 14, 15, 20, 22; BUSI 22, 22H; CHLD 1, 2; CNSL 3, 3H; ECON 1A, 1B, 9, 9H, 25; GEOG 2, 5, 10; HIST 3A, 3B, 3C, 4A, 4B, 4C, 8, 10, 17A, 17B, 17C, 18, 20; KINS 2, 10, 51; POLI 1, 3, 3H, 4, 9, 9H, 15, 15H; PSYC 1, 1H, 2, 4, 9, 10, 14, 21, 22, 25, 30, 33, 40, 49; SOC 1, 1H, 10, 11, 15, 19, 20, 23, 28, 30, 40, 45; WMN 5, 21.	
AREA V. COMMUNICATION AND ANALYTICAL THINKING Complete one course	Completed
COMM 1A, 1AH, 1B, 2, 3, 4, 55; C S 1A, 1B, 1C, 2A, 2B, 2C, 3A, 18; ENGL 1B, 1BH, 50C; GEOG 11; GIST 11; MATH 1A, 1AH, 1B, 1BH, 1C, 10, 12, 17, 22, 33, 40A, 44, 48A, 48B, 48C; MDIA 3; PHIL 1, 7; PSYC 7; SOC 7.	
AREA VI. UNITED STATES CULTURES AND COMMUNITIES Complete one course	Completed
CHLD 51A; CNSL 3, 3H; COMM 10, 12; ENGL 7, 12, 12A, 40, 45A, 45AH, 45B, 45BH; ETHN 1, 2, 3, 4, 5, 7, 8; HIST 10; HUMN 12, 12H; MDIA 8A, 12, 12H; MUS 8, 8H; PHOT 8, 8H; PSYC 22; SOC 8, 23; THTR 8; WMN 5.	
AREA VII. LIFELONG LEARNING Complete a total of four units or more in lifelong learning from two different academic departments. For the purpose of this area, ATHL, DANC, PHDA and PHED will be considered one academic department.	Completed
ATHL 4, 4A, 4B, 4C, 4E, 4F, 11, 11A, 11B, 12, 12A, 12B, 12E, 21, 21A, 21B, 21C, 21F, 22, 22A, 22B, 22C, 22F, 31, 31A, 31C, 32, 32A, 32C, 32F, 33, 33A, 33B, 33C, 33F, 41A, 41B, 42, 42B, 42C, 42F, 44, 44A, 44C, 44F, 45, 45A, 45C, 45F; BIOL 8, 9, 12, 81; CHEM 81; CNSL 1, 56, 72, 90; COMM 2, 10, 12, 55; CRLP 7, 73, 74; CS 81; DANC 2A, 2B, 3A, 3B, 4A, 4B, 4C, 7, 13A, 13B, 14, 18A, 18B; HLTH 20, 21, 22, 23; KINS 4, 16A, 16B, 16C, 49; LIBR 10, 10H; MATH 83; PHDA 15A, 16, 17, 18, 21A, 21B, 23; PHED 10A, 10B, 11A, 11B, 13, 13C, 15A, 15B, 15C, 18, 18B, 18C, 19B, 19C, 19D, 21A, 21B, 21C, 22, 22A, 22B, 22C, 23A, 23B, 24, 24A, 25A, 26, 26A, 27, 27A, 27B, 27C, 31A, 31B, 31C, 33, 33A, 33B, 36A, 36B, 36C, 37, 37A, 37B, 38A, 38B, 38C, 40, 40A, 40C, 41, 41A, 41B, 45, 45A, 45C, 46, 46A, 46B, 47B, 47C, 49B; PSYC 49; SOC 19, 40.	
MATH PROFICIENCY (a letter grade of "C" or better required)	Completed
College level math course at or above the level of Intermediate Algebra	
ETHNIC STUDIES GRADUATION REQUIREMENT (Can be double counted with either Area I OR Area VI, not both)	Completed
ETHN 1, 2, 3, 4, 5	
Apprenticeship Plumbing Technology Students who completed the major requirements for the Apprenticeship Plumbing Technology program will satisfy the following GE AREAS: II, III, IV, V, VI, VII	
Apprenticeship Programs in Air Conditioning & Refrigeration Tech. (Pathway 1), Sheet Metal, & Steamfitting & Pipefitting Tech. Students who complete the major requirements for one of the three Apprenticeship Programs listed above will satisfy the following GE AREAS: III, IV, V, VI, VII	

Foothill College

Division Curriculum Committee Bylaws Template

Article I: Name and Purpose

1. **Name:** This committee shall be known as the [Division Name] Curriculum Committee.
2. **Purpose:** The purpose of the committee is to oversee curriculum development and review within the division, ensuring alignment with college standards, policies, and state regulations.

Article II: Membership

1. **Composition**
 - The committee shall consist of [number] members, including faculty representatives from each department in the division, and may also include student representatives, counselors, or other non-voting advisory members as appropriate.
 - The committee chair shall be elected by the committee members or appointed by consensus.
2. **Membership Eligibility**
 - Voting members must be current active faculty members in the division.
 - Non-voting members may be included for input but do not contribute to quorum or voting.

Article III: Meetings

1. **Regular Meetings**
 - Regular meetings shall be held at least [weekly/biweekly/monthly] during the academic year.
 - Meeting times and locations will be determined at the start of each term and published in the same location as agendas and minutes, as well as being provided to College Curriculum Committee leadership for distribution.
2. **Special Meetings**
 - Special meetings may be called by the chair or a majority of the members with at least 24 hours' notice. Agendas and minutes, as well as public access, must otherwise follow the same policies as regular meetings.
3. **Agenda and Minutes**
 - Meeting agendas must be physically posted at least 72 hours before a regular meeting. The posting location shall be consistent and publicly accessible.
 - Minutes of all meetings shall be recorded and made available to the public upon demand.
 - Both minutes and agenda shall additionally be provided to the Foothill College Curriculum Coordinator within the allotted timeframe for publishing on the College Curriculum Committee website. *Note that this provision does not satisfy the notification requirement and is provided as a service by the CCC.*

Article IV: Curriculum Development Process

1. New Course/Program Proposals

- Any active member of the faculty may, at any time, propose a new curriculum item.
- Proposals can be made via the campus Curriculum Management System (CourseLeaf) but should also be discussed with the committee via [methodology].

2. Division Course Discussion

- All division constituents are encouraged to discuss curriculum items.
- Division discussions should guide committee members in their voting decisions.
- Discussions are primarily facilitated via [methodology].

Article V: Quorum and Voting

3. Quorum

- A quorum shall consist of [number] voting members, which represents a simple majority of the total voting membership.
- If quorum is not met, the meeting may proceed for discussion purposes, but no votes may be taken.

4. Voting Procedures

- Each voting member has one vote.
- A motion passes with a simple majority of the quorum present.

Article VI: Roles and Responsibilities

1. Committee Chair(s)

- The chair(s) shall preside over meetings, set agendas, and represent the committee at college-level curriculum meetings.
- The chair may delegate tasks as necessary.

2. Members

- Members are responsible for attending meetings, participating in discussions, and voting on matters concerning curriculum.
- Members may also be assigned to subcommittees or working groups as needed.

Article VII: Amendments

1. Amendment Procedure

- These bylaws may be amended by a simple majority vote of the committee, provided that the proposed amendment has been presented in writing at the previous meeting.

2. Review of Bylaws

- The bylaws shall be reviewed at least once every [three years] to ensure they meet current needs.

Adopted on [Date]

Committee Chair Signature: _____

Date: _____