

BAY AREA COMMUNITY COLLEGE CONSORTIUM
REQUEST FOR PROGRAM ENDORSEMENT - NEW CREDIT PROGRAM



Complete (maximum 3 pages) and Email this document to: mail@baccc.net CC: Rock Pfotenhauer, Chair, Bay Area Community College Consortium, rock@baccc.net; (831) 479-6482 and Kit O'Doherty, kitodoherty@gmail.com; (650) 560-9798. Write REQUEST FOR PROGRAM ENDORSEMENT in the subject line of your email. Your email constitutes a request for Program Endorsement at the closest BACCC meeting for which the [deadline for submission](#) has been met.

Facility and Sustainable Building Management		William Roeder
PROPOSED PROGRAM TITLE		CONTACT PERSON
De Anza College		Instructor/Program Coordinator
COLLEGE		TITLE
Foothill-De Anza CCD		N/A
DISTRICT		PHONE NUMBER
Fall 2017		roederwilliam@fhda.edu
PROJECTED PROGRAM START DATE		E-MAIL ADDRESS
GOAL(S) OF PROGRAM (CHECK ALL THAT APPLY):		
<input checked="" type="checkbox"/> CAREER TECHNICAL EDUCATION (CTE) <input type="checkbox"/> TRANSFER <input type="checkbox"/> OTHER		
TYPE OF PROGRAM (CHECK ALL THAT APPLY):		
<input type="checkbox"/> A.A. DEGREE <input checked="" type="checkbox"/> A.S. DEGREE <input checked="" type="checkbox"/> CERTIFICATE OF ACHIEVEMENT: <input checked="" type="checkbox"/> 18+ semester (or 27+ quarter) units		
<input checked="" type="checkbox"/> 12-18 semester (or 18-27 quarter) units		

Recommended T.O.P. Code	0946.10
Units for Major-Degree	50
Total Units for Degree	90
Required Units - Certificate	21/36

1. Insert the description of the program as it will appear in the catalog:

The inter-disciplinary Facility and Sustainable Building Management Certificates of Achievement, Achievement-Advanced, and A.S. degree programs align with the requirements set by the Facility Management industry for qualified facility management professionals. Students will be educated and provided actual on the job work experience through paid internships. Students will understand the cross functional aspects of a successful facility manager and will be further educated on the roles facility managers play, the basics of building operations and maintenance, building sustainability, and work management within the facility manager role. The curriculum aligns with the International Facility Management Association's (IFMA) Facility Management Professional (FMP) and Sustainable Facility Professional (SFP) industry certifications.

2. Provide a brief rationale for the program:

The Facility and Sustainable Building Management Certificates of Achievement, Achievement-Advanced, and A.S. degree programs will prepare students for careers in building sustainability, space planning, environmental health and safety, energy efficiency, sustainable landscaping, real estate, property management,

human resources and other business related job functions such as marketing, sales and accounting.

The Facility and Sustainable Building Management certificate and degree programs will create pathways for current and future students in the Energy Management and Building Science program towards career opportunities in the facilities management industry. The Facility and Sustainable Building Management certificate and degree program will feature an interdisciplinary curriculum with coursework in energy efficiency, building operation systems, environmental health and safety, business operations, communications, real estate, and accounting. Work-based learning will also be a key component of this program. There is a significant demand for qualified facility management professionals. As a result, the International Facility Management Association (IFMA) approached the Foundation for California Community Colleges to address this labor market shortage and is offering participating colleges access to its training resources through a signed license agreement at no cost to students. De Anza is targeted as the Northern California lead school for this Facility Management certificate and degree program initiative.

3. List all courses required for program completion, including core requirements, restricted electives and prerequisites.

Certificate of Achievement

<u>Course Number</u>	<u>Course Title</u>	<u>Quarter Units</u>
BUS 56	Human Relations in the Workplace	5
BUS 85	Business Communication	3
ES 58	Introduction to Green Building	1
ES 69A	Intro. to Facilities Management	3
ES 70	Introduction to Energy	1
ES 71	Intro. to Sustainable Buildings	1
ES 78	Energy Mgmt. Systems and Controls	1
ES 82	Program Mgmt. /Technical Report Writing for Energy Professionals	2
REST 50	Real Estate Principles	4

TOTAL UNITS - 21

Certificate of Achievement-Advanced

<u>Course Number</u>	<u>Course Title</u>	<u>Quarter Units</u>
BUS 56	Human Relations in the Workplace	5
BUS 85	Business Communication	3
ES 58	Introduction to Green Building	1
ES 69A	Intro. to Facilities Management	3
ES 70	Intro. to Energy Management Tech.	1
ES 71	Intro. to Sustainable Buildings	1
ES 78	Energy Mgmt. Systems and Controls	1
ES 82	Project Mgmt. /Report Writing for Energy Professionals	2
REST 50	Real Estate Professionals	4
ACCT 105	Basic Financial Acct. Procedures	1
BUS 10	Introduction to Business	5

BUS 96	Principles of Management	5
ES 71B	Advanced Building Envelope	2
ES 81	LEED/Building Sustainability Codes	2

TOTAL UNITS – 36

Associate in Science (A.S.) Degree

Course Number	Course Title	Quarter Units
BUS 56	Human Relations in the Workplace	5
BUS 85	Business Communication	3
ES 58	Introduction to Green Building	1
ES 69A	Intro. to Facilities Management	3
ES 70	Intro. to Energy Management Tech.	1
ES 71	Intro. to Sustainable Buildings	1
ES 78	Energy Mgmt. Systems and Controls	1
ES 82	Project Mgmt. /Report Writing for Energy Professionals	2
REST 50	Real Estate Professionals	4
ACCT 105	Basic Financial Acct. Procedures	1
BUS 10	Introduction to Business	5
BUS 96	Principles of Management	5
ES 71B	Advanced Building Envelope	2
ES 81	LEED/Building Sustainability Codes	2
<u>Select a Minimum of 14 Units from the List of Courses Below</u>		
ACCT 1A	<i>Financial Accounting I</i>	5
ACCT 88	<i>Excel Spreadsheets for Accounting</i>	2
BUS 65	<i>Leadership</i>	5
CIS 3	<i>Business Information Systems</i>	4.5
CIS 79	<i>Managing Technology Projects</i>	4.5
ES 70B	<i>Adv. Energy Mgmt. Technology</i>	2
ES 78B	<i>Adv. Energy Mgmt. Systems and Controls</i>	2
ES 62A	<i>Environmental Mgmt. Tools: Environmental Mgmt. Systems</i>	3
ES 64	<i>AB 32 - California Global Warming Solutions Act of 2006</i>	1
ES 69	<i>Energy Mgmt. Within Your Organization</i>	1
REST 53	<i>Real Estate Finance</i>	4

TOTAL UNITS – 50

4. Summarize the Labor Market outlook (including citation of the source of data) for students exiting the program.

The Facility and Sustainable Building Management certificate and degree programs will provide students with the skill sets and competencies to effectively perform the Facility Management function within a business or service oriented company. Building facilities are a company's second largest asset after employees. An educated and trained facility manager can improve employee productivity and job satisfaction, ultimately leading to improved financial outcomes for the company as well as healthier and more productive work environments for employees.

The International Facility Management Association (IFMA) estimates the average age of practicing facility managers is 49+ years old. IFMA also forecasts that 30- 50% of practicing facility managers will retire within the next 10 years. This indicates a pending employment gap and a need for younger, well educated and qualified facility management professionals. IFMA has turned to the California Community Colleges to help fill this gap.

The California Community Colleges Chancellor's Office, the Foundation for California Community Colleges, the Energy, Construction and Utilities Sector and the International Facility Management Association (IFMA) are united in their support the creation certificate and degree programs in Facilities Management. De Anza will be using both Local and Regional Share Strong Workforce Program funding to support the development of the program and associates instructional equipment, personnel, and professional development expenses to launch the program.

Demand for Facilities Managers in Mid-Peninsula and Silicon Valley:

Since a six digit SOC code does not exist for Facilities Manager, we are unable to use EMSI data to produce a demand minus supply equation. As such, a Burning Glass search on job postings was conducted to get an idea of demand in San Francisco, San Mateo and Santa Clara counties. While a posting does not necessarily equate to a job opening (which is normally what is used to determine the labor market demand), it does give an idea of the demand.

Top Ten SOC Codes for Keyword Search in Job Title “Facilities Manager” (April 01, 2016 – March 31, 2017)

SOC Code	Occupation	Job Postings
11-3011	Administrative Services Managers	350
11-9041	Architectural and Engineering Managers	24
11-9141	Property, Real Estate, and Community Association Managers	21
11-9021	Construction Managers	15
11-9199	Managers, All Other	13
15-1199	Computer Occupations, All Other	12
11-1021	General and Operations Managers	12
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	10
41-4012	Sales Reps, Wholesale and Manufacturing, Except Technical & Scientific Products	9
11-2022	Sales Managers	7
	Other SOC codes	32
	Total Postings	505

Supply for Facilities Managers:

For the Mid-Peninsula and Silicon Valley sub-regions (San Francisco, San Mateo, Santa Clara Counties):

094610 - Energy Systems Technology	2012-13	2013-14	2014-15	2015-16	Latest 3 Yr Avg
CET-Sobrato (Bldg Maint Service Tech)	41	15	18	n/a	25

De Anza	n/a	8	6	8	7
Institute for Business & Tech (Blding & Maint Facility Tech Program)	43	30	59	n/a	44
Skyline (Construction Mgmt Career Certificate)	n/a	0	0	4	1
Total	84	53	83	12	77

093400 - Electronics & Electric Technology	2012-13	2013-14	2014-15	2015-16	Latest 3 Yr Avg
San Francisco	n/a	37	17	11	22
San Mateo (Fundamentals of Smart Bldg Systems)	n/a	28	41	31	33
Skyline (Energy Systems Tech Mgmt)	n/a	43	14	2	20
Total		108	72	44	75

City College of San Francisco does not seem to have a program to train for any kind of facility management. Therefore, the 22 annual average awards should not be counted in the supply for Facilities Manager. The CET-Sobrato program does train for Building Maintenance Service Technician which could be a pathway to Facilities Management. So, it seems there are 130 awards given to programs that could be training for Facilities Management by community colleges and other postsecondary educational institutes in the tri-county area.

5. List similar programs at other colleges in the service area which may be adversely impacted as follows:

No other Bay Area community colleges currently offers a Facility Management certificate or degree program. The only other California Community College that has a related program under development is Chaffey College in San Bernadino.

College	Program	Who you contacted	Outcome of contact

6. Include other information you would like to share.