

IRAO OFFICE USE ONLY	
Received	
In Banner	
MTVCOMP	

University of Hawai'i  
Code Request Form for Academic Programs

# NEW OR MODIFIED SUBJECT CODE

Date: 8/7/2020

**REQUESTOR CONTACT INFORMATION**

Name Debie Amby Campus UH Maui College  
 Title Banner/Curriculum Specialist Email debie@hawaii.edu  
 Office/Dept VCAA Phone 984-3378

- NEW SUBJECT CODE USE AT INSTITUTION**  
 **MODIFY SUBJECT CODE USE AT INSTITUTION**

Institution UH Maui College Effective Term Fall 2020

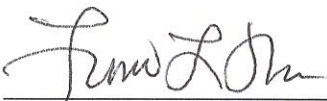
	Code (Max. Characters)	Description (30 characters max)	Check if requesting new code:
College	(2) <u>IN</u>	<u>Instructional</u>	<input type="checkbox"/> See Banner form STVCOLL
Division	(4) <u>VT</u>	<u>Vocational/Technical</u>	<input type="checkbox"/> See Banner form STVDIVS
Department	(4) <u>CTEC</u>	<u>Construction Technology</u>	<input type="checkbox"/> See Banner form STVDEPT
Subject	(4) <u>FMGT</u>	<u>Facilities Management</u>	<input type="checkbox"/> See Banner form STVSUBJ

**ATTACHMENTS**

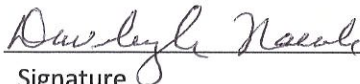
- Memo with appropriate campus approval (i.e. Campus Curriculum Committee, Vice Chancellor for Academic Affairs, etc.)

**VERIFICATIONS**

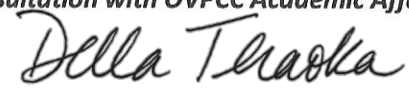
**Registrar:**

Flora Mora  8/19/20  
 Print Name Signature Date

**Financial Aid Officer:**

Davileigh Naeole  8/19/20  
 Print Name Signature Date

**For Community Colleges, verification of consultation with OVPCC Academic Affairs:**

Della Teraoka  9/25/2020  
 Print Name Signature Date



UNIVERSITY of HAWAII\*  
**MAUI COLLEGE**

August 19, 2020

MEMORANDUM

TO: Donald O. Straney  
Vice President for Academic Planning and Policy

FROM: Lui K. Hokoana  
Chancellor

SUBJECT: Program Action at UH Maui College

I have approved the following program actions so that the necessary codes can be established in Banner. If you have any questions or concerns, please let me know. Thank you for your assistance.

**NEW PROGRAM CODE**

AAS-AMT2-ABRP (Auto Body Repair & Painting) Effective Term Fall 2020.  
CA-AMT2-ABRP (Auto Body Repair & Painting) Effective Term Fall 2020.  
CO-AMT2-AMHA (Heating & Air Conditioning) Effective Term Fall 2020.  
CO-AMT2-AMSS (Suspension & Steering) Effective Term Fall 2020.  
CA-CTEC-BUCO (Building Maintenance & Construction) Effective Term Fall 2020.  
CA-CTEC-FMGT (Facilities Management) Effective Term Fall 2020.  
CA-CTEC-FMEC (Facilities Mechanical) Effective Term Fall 2020.  
CO-CTEC-ACM (Air Conditioning Maintenance) Effective Term Fall 2020.  
CO-CTEC-FMGT (Facilities Management) Effective Term Fall 2020.  
AS-CM-CFLM (Filmmaking) Effective Term Fall 2020.  
AS-CM-GRAP (Graphic Design) Effective Term Fall 2020.  
AS-CM-WEBD (Web Development) Effective Term Fall 2020.  
CA-CM-CFLM (Filmmaking) Effective Term Fall 2020.  
CA-CM-GRAP (Graphic Design) Effective Term Fall 2020.  
CA-CM-WEBD (Web Development) Effective Term Fall 2020.  
CO-HSER-YDPR (Youth Development Practitioner) Effective Term Fall 2020.  
CO-NSCI-SCLT (Science Lab Technician) Effective Term Fall 2020.  
CO-BTEC-CPRP (Career Preparation) Effective Term Fall 2020.

**REPLACE PROGRAM CODE**

CO-BUSM-EMKT (e-Marketing) Effective Term Fall 2017.

**NEW SUBJECT CODE**

HDFS (Human Development & Family Studies) Effective Term Fall 2020.  
FMGT (Facilities Management) Effective Term Fall 2020.

CC: Pearl Iboshi, Director of IRAO  
Tammi Oyadomari-Chun, UHCC Director of Academic Programs  
Debra Nakama, Vice Chancellor of Student Affairs  
Kahele Dukelow, Dean of Arts & Sciences  
Laura Nagle, Dean of CTE  
Kulamanu Ishihara, Assistant Professor, Counseling

310 W. Ka'ahumanu Avenue  
Kahului, HI 96732-1617  
Telephone: 808 984-3655  
Fax: 808 984-3546  
Website: www.maui.hawaii.edu

# FMGT 100

## Introduction to Building Maintenance and Construction

Approved | Fall 2020

### Proposal Information

---

#### Workflow Status

##### Proposer

- ✓ **Clifford Rutherford (Submitter)**  
Submitted 3-18-2019

##### DEPARTMENT (CTE) \\ Curriculum Department Representative

- Lawrence Martinson
- ✓ **Clifford Rutherford**  
Approved 3-18-2019

##### DEPARTMENT (CTE) \\ Department Chair

- ✓ **Thomas Hussey**  
Approved 3-18-2019

##### DEPARTMENT (CTE) \\ Curriculum Department Representative

- Lawrence Martinson
- ✓ **Clifford Rutherford**  
Approved 3-18-2019

##### (CURRICULUM COMMITTEE CHAIRS) \\ CHAIRS

- ✓ **Timothy Marmack**  
Approved 5-13-2019
- ✓ **Lorelle A S Peros**  
Approved 5-13-2019

##### (ACADEMIC SENATE) \\ SENATE CHAIR

- Rosemary Vierra
- ✓ **Rosiana Azman**  
Approved 5-14-2019

##### (ADMINISTRATION) \\ VCAA

- Kaheleonolani Dukelow
- Laura Nagle
- ✓ **Jonathon McKee**  
Approved 5-20-2019

(ADMINISTRATION) \\ CHANCELLOR

- ✓ **Lui Hokoana**  
Approved 5-20-2019

(BANNER REVIEW/INPUT) \\ BANNER SPECIALIST

- ✓ **Debie Amby**  
Approved 9-6-2019

(CATALOG & STAR INPUT) \\ CATALOG SPECIALIST

- ☑ **Debie Amby**
- ☑ **Jean Pezzoli**

(CATALOG & STAR INPUT) \\ STAR GPS SPECIALIST

- ☑ **Christine Ishihara**
- ☑ **Shane Payba**

---

**1) Start Date**

Fall 2020

---

**Subject Code**

FMGT

**Number** ⓘ

100

**Title**

Introduction to Building Maintenance and Construction

**Linked Institution Subject Codes**

No Course Matches

---

## A. Proposal Details

**A.1) Proposer Name(s)**

Clifford Rutherford

**A.2) Internal Proposal Date**

1/28/19

**A.3) Type of Proposal**

New

**A.4) General Education (Diversification) Consideration** ⓘ

**A.5) Proposal Supporting Documents and Diversification Forms**

**A.6) Degrees and/or Certificates impacted by this action**

CONSTRUCTION TECHNOLOGY AAS - REQUIRED  
CONSTRUCTION TECHNOLOGY CA - REQUIRED  
CONSTRUCTION TECHNOLOGY CO - REQUIRED  
CONSTRUCTION TECHNOLOGY - ELECTIVE

**A.7) Other affected Departments / Programs / Campuses**

UH West Oahu BAS, FMGT concentration

**A.8) Other affected departments/programs/campuses have been consulted**

Yes

**A.9) Please outline details of consultation**

Dr. Jeff Rogers, Coordinator for BAS FMGT concentration at UH West Oahu, has been consulted on numerous occasions over the last 2 years via telephone and Go-to-Meeting video conference to ensure that the new FMGT 100, 120, 200, and 201 courses align with the UHWO BAS path.

**A.10) Proposal Impact(s)**

NONE

**A.11) Reason/Justification for Proposal**

Updating all "incomplete in Kualii" but current CTEC Program map course outlines from "Curriculum Central" database as modifications into Kualii Curriculum Management system as 100 level as unanimously recommended by both CTEC Advisory Committee and UHMC CTEC Department. Priority is given to entering courses that contribute to major curriculum submissions that will result in significant programmatic catalog changes to begin in Fall 2020.

The FMGT alpha and related curriculum is being adopted by the UHMC CTEC program for this and other new lower division (100-200 level) facilities related courses to facilitate transfer of CTEC AAS students to the UHWO BAS Business FMGT concentration.

Replaces MAIN 20 in the CTEC Program map.  
CASLO updated to new Fall 18 form (see attached).

# 1. General Information

---

**1.1) Title**

Introduction to Building Maintenance and Construction

**1.1a) Long Title**

Introduction to Building Maintenance and Construction

**1.2) Description**

Introduces tools, materials, and safety for building maintenance and construction trades. Explores fundamentals of building systems and operations of the maintenance department.

**1.3) Department**

CTE

**1.4) Crosslisted Course(s)**

**1.5) Previous Subject Code, Number, and Title**

MAIN 20

**1.6) Credit Options**

Fixed

**Fixed**

2 credits

### 1.7) Repeatability

N/A

### 1.8) Grading Options

Audit (A)

Credit/No Credit (C)

Standard Letter A-F (L)

### 1.9) Prerequisites

None

### 1.10) Corequisites

### 1.11) Catalog Requisite Information

FMGT 100

Introduces tools, materials, and safety for building maintenance and construction trades. Explores fundamentals of building systems and operations of the maintenance department.

2 cr; 60hr. Lec/Lab, 2.5 TEs

### 1.12) Catalog Information

Based on UHMC 2018-19 Catalog: P. 44- Program Map: (See Attached Catalog Map Change); P. 129- Course Description: Remove MAIN 20; P. 117 Insert- FMGT 100 Course Description before Family Resources

### 1.13) Recommended Preparation

None

## 2. Content

---

### 2.1) Course Student Learning Outcomes (SLOs)

Use appropriate materials, tools, equipment, and procedures to carry out tasks performed on basic facility maintenance projects

**Comp Ref (Example: C1, C3)**

SLO 1

#### Linked Program Outcome

CTEC PLO 1: Use and maintain appropriate materials, tools, equipment, and procedures to carry out tasks performed on construction projects according to safety and industry standards. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 2: Use math, computer, and oral and written communication skills to solve construction project problems. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 3: Create and maintain accurate documentation of construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 4: Describe industry standard Green Building practices in construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 5: Read and interpret blueprints, and/or schematics, and specifications to plan projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 6: Demonstrate the craftsmanship standards of dependability, punctuality, and quality. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 7: Examine and use proper mechanical, electrical, and carpentry codes and standards applicable to construction and repair. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

Maintain a safe and healthy work site and final construction project

**Comp Ref (Example: C1, C3)**

SLO 2

#### Linked Program Outcome

CTEC PLO 1: Use and maintain appropriate materials, tools, equipment, and procedures to carry out tasks performed on construction projects according to safety and industry standards. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 6: Demonstrate the craftsmanship standards of dependability, punctuality, and quality. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 7: Examine and use proper mechanical, electrical, and carpentry codes and standards applicable to construction and repair. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
Employ measurement and building standards related to common maintenance projects  
**Comp Ref (Example: C1, C3)**

SLO 3

**Linked Program Outcome**

CTEC PLO 2: Use math, computer, and oral and written communication skills to solve construction project problems. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 3: Create and maintain accurate documentation of construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 4: Describe industry standard Green Building practices in construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 4: Describe industry standard Green Building practices in construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 6: Demonstrate the craftsmanship standards of dependability, punctuality, and quality. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 7: Examine and use proper mechanical, electrical, and carpentry codes and standards applicable to construction and repair. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
Demonstrate and develop effective written and oral communication skills  
**Comp Ref (Example: C1, C3)**

SLO 4

**Linked Program Outcome**

CTEC PLO 2: Use math, computer, and oral and written communication skills to solve construction project problems. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 3: Create and maintain accurate documentation of construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 4: Describe industry standard Green Building practices in construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 5: Read and interpret blueprints, and/or schematics, and specifications to plan projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 6: Demonstrate the craftsmanship standards of dependability, punctuality, and quality. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
Identify and discuss current construction materials and processes  
**Comp Ref (Example: C1, C3)**

SLO 5

**Linked Program Outcome**

CTEC PLO 1: Use and maintain appropriate materials, tools, equipment, and procedures to carry out tasks performed on construction projects according to safety and industry standards. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 2: Use math, computer, and oral and written communication skills to solve construction project problems. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 4: Describe industry standard Green Building practices in construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 5: Read and interpret blueprints, and/or schematics, and specifications to plan projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 6: Demonstrate the craftsmanship standards of dependability, punctuality, and quality. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 7: Examine and use proper mechanical, electrical, and carpentry codes and standards applicable to construction and repair. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

**2.2) Course Competencies**

Establish priority of work tasks

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 4 SLO 5

Carry out and document work order systems

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3 SLO 4 SLO 5

Explain the basic safety guidelines and rules for general workplace safety

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3 SLO 4 SLO 5

Explain the basic safety guidelines for working with and around electrical power tools and circuits

**Aligns with Course SLO**

SLO 2 SLO 3 SLO 5

Describe, select, and demonstrate the safe use of hand and power tools used by facilities maintenance technicians

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3 SLO 5

Describe, select and install proper anchors, fasteners and adhesives necessary for a specific maintenance project

**Aligns with Course SLO**

SLO 1 SLO 3 SLO 5

Employ systematic diagnostic and troubleshooting practices

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3 SLO 5

Test and analyze GFCI receptacles

**Aligns with Course SLO**

SLO 1 SLO 3

Repair and/or replace common electrical devices such as receptacles and switches

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3 SLO 5

Repair and/or replace lighting fixtures, bulbs, and ballasts

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3 SLO 5

Perform general interior and exterior carpentry maintenance

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3 SLO 5

Prepare surfaces and work site for finishing including sanding, caulking, and protective covering of exposed surfaces

**Aligns with Course SLO**

SLO 1 SLO 2

Apply surface finishes with a brush and roller according to manufacturer recommendations and job specification

**Aligns with Course SLO**

SLO 1 SLO 2

Clean and store painting materials including brushes, rollers, and thinners according to manufacturer's specifications and OSHA regulations

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 5

Identify, select, and demonstrate basic plumbing tools for specific applications

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 5

Identify and select appropriate materials for residential plumbing repair

**Aligns with Course SLO**

SLO 1 SLO 3 SLO 5

Document building maintenance procedures and materials using the work order process

**Aligns with Course SLO**

SLO 1 SLO 3 SLO 4 SLO 5

### **3. College-wide Academic Student Learning Outcomes (CASLOs)**

---



<https://sites.google.com/a/hawaii.edu/curriculum-committee/uh-maui-college/forms>

**3.1) Creativity Level**

Does Not Satisfy

**3.2) Critical Thinking Level**

Satisfy

**3.3) Information Retrieval and Technology Level**

Does Not Satisfy

**3.4) Oral Communication Level**

Does Not Satisfy

**3.5) Quantitative Reasoning Level**

Satisfy

**3.6) Written Communication Level**

Does Not Satisfy

**3.7) Attach CASLO grid**

- FMGT 100 CASLO.pdf

## 4. Recommended Course Content and Timeline

---

### 4.1) CONTENT

#### Content

1 Week: Introduction and measurement skills

2-3 Weeks: Building systems, structures, and materials

2-3 Weeks: Use of power tools and fasteners

1-3 Weeks: Exterior building systems and repairs

1-3 Weeks: Interior building systems and repairs

1 Week: Plumbing Systems

1 Week: Electrical systems

1 Week: Air conditioning and refrigeration systems

2-3 Weeks: Interior furnishings and materials

## 5. Text and Materials, Reference Materials, and Auxiliary Materials

---

### 5.1) TEXTBOOK (Include Author, Title, Edition, Publisher and Year Published)

Appropriate text(s) and materials will be chosen at the time the course is offered from those currently available in the field.

OER Example: Building Maintenance & Construction: Tools and Maintenance Tasks, Clifford Rutherford,  
<http://pressbooks.oer.hawaii.edu/buildingmaint/>, Publication Date: 2018, Outreach College University of Hawai'i at Manoa OER

Traditional Textbook Example: Residential Construction Academy: Facilities Maintenance, Standiford, 3rd Edition, ISBN: 9781133282433,  
Publication Date: 2014

Text may be supplemented with but not limited to videos, internet resources, workbooks, demonstration equipment and visual aids at the discretion of the instructor.

### 5.2) Additional resources and/or fees required for this course.

None

## 6. Delivery

---

### 6.1) Intended Offering Terms

Any

### 6.2) Maximum Enrollment

Other (Text field)

### 6.3) Schedule Types

Lecture/Lab

### 6.4) Basis for Teaching Equivalency

SHOP-24

### 6.5) Activities

#### Semester Type

Standard Semester (15 weeks)

Activity Type	Meetings/Week	Hours/Week	Credit Ratio	Contact Hours	Credits
Lecture			1:1	0	0
Lecture/Lab	1	4	1:2	60	2
Lab			1:3	0	0
	1	4		60	2

### 6.6) Teaching Equivalency (TE)/Workload Calculation

$(4/24) \times 15 = 2.5$  TEs

### 6.7) Proposal Summary

Updating all "incomplete in Kualii" but current CTEC Program map course outlines from "Curriculum Central" database as modifications into Kualii Curriculum Management system as 100 level as unanimously recommended by both CTEC Advisory Committee and UHMC CTEC Department. Priority is given to entering courses that contribute to major curriculum submissions that will result in significant programmatic catalog changes to begin in Fall 2020. FMGT 100 replaces MAIN 20 in the CTEC Program map.

At the recommendation of the CTEC Advisory Committee and the Maui Facilities Engineers Leadership Council, the FMGT alpha and related curriculum is being adopted by the UHMC CTEC program for this and other new lower division (100-200 level) facilities related courses to facilitate transfer of CTEC AAS students to the UHWO BAS Business FMGT concentration. Dr. Jeff Rogers, Coordinator for BAS FMGT concentration at UH West Oahu, has been consulted on numerous occasions over the last 2 years via telephone and Go-to-Meeting video conference to ensure that the new FMGT 100, 120, 200, and 201 courses align with the UHWO BAS path.

CASLO updated to new Fall 18 form (see attached).

## Curriculum Committee (For Administrative Use Only)

---

### 1) Start Date

### 2) Type of Proposal

-

### 3) Curriculum Proposal Number

### 4) Special Topics Start Term

### 5) Special Topics End Term - Special Topics courses can be active for two years.

6) General Education (Diversification) Categories Approved

7) Diversification Forms (Signed) and other supporting documents.

8) GE Start Term

9) GET End Term (Designation is good for five years.)

10) Curriculum Committee notes

## Banner Data Elements (For Administrative Use Only)

---

1) Long Title

1a) Transcript Title

Introduction to Building Maintenance and Construction

2) Description

3) Effective Term

4) Status

—

5) College

6) Division

7) Department

8) Approval Code

—

—

—

—

9a) CEU or Credit  
(Low)

9b) CEU or Credit  
Options

9c) CEU or Credit  
(High)

—

10a) Billing (Low)

10b) Billing Options

10c) Billing (High)

—

11a) Lecture (Low)

11b) Lecture Options

11c) Lecture (High)

—

12a) Lab (Low)

12b) Lab (Options)

12c) Lab (High)

—

13a) Other (Low)

13b) Other Options

13c) Other (High)

—

14a) Contact (Low)

14b) Contact Options

14c) Contact (High)

—

15) Repeatability

16) Course Level

17) Schedule Type

18) Workload

(4/24) x 15= 2.5 TEs

19) Grading Options

20) Default Grading Option Code

—

21) Prerequisites

None

22) Corequisites

23) Equivalent Course(s)

Course

Start Term

End Term

24) Degree Attribute

25) Course Text

Course Text

26) Scabase End term

27) Mutually Exclusive Course(s)

Course

Start Term

End Term

Banner Integration Flag

Banner Integration Results

Institutional Reporting Codes

—

Integration Partner Codes

Course URL

Learning Objectives

## Banner Integration

---

Banner Integration Flag

Banner Integration Results

Course Fees

Fee Code Detail

Fee Code Amount

## 7. Course Dependencies

---

### 7.1) Dependencies

- |  |                                    |
|--|------------------------------------|
| ✓ CO-CTEC-MAPL - CONSTRUCTION TECHNOLOGY - MAINTENANCE PLUMBING (CO)                 | <a href="#">View Programs &gt;</a> |
| ✓ AAS-CTEC - CONSTRUCTION TECHNOLOGY (AAS)   | <a href="#">View Programs &gt;</a> |
| ✓ CA-CTEC-BUCO - CONSTRUCTION TECHNOLOGY- BUILDING MAINTENANCE AND CONSTRUCTION (CA) | <a href="#">View Programs &gt;</a> |
| ✓ CA-CTEC-FMEC - CONSTRUCTION TECHNOLOGY- FACILITIES MECHANICAL (CA)                 | <a href="#">View Programs &gt;</a> |
| ✓ CA-CTEC-FMGT - CONSTRUCTION TECHNOLOGY- FACILITIES MANAGEMENT (CA)                 | <a href="#">View Programs &gt;</a> |

## 8. Attachments

---

- [CTEC Catalog Pages \(FA 20\) All.pdf](#)

# FMGT 120

## Introduction to Project Management

Approved | Fall 2020

### Proposal Information

---

#### Workflow Status

##### *Proposer*

- ✓ **Clifford Rutherford (Submitter)**  
Submitted 3-18-2019

##### *DEPARTMENT (CTE) \ Curriculum Department Representative*

- Lawrence Martinson
- ✓ **Clifford Rutherford**  
Approved 3-18-2019

##### *DEPARTMENT (CTE) \ Department Chair*

- ✓ **Thomas Hussey**  
Approved 3-18-2019

##### *DEPARTMENT (CTE) \ Curriculum Department Representative*

- Lawrence Martinson
- ✓ **Clifford Rutherford**  
Approved 3-18-2019

##### *(CURRICULUM COMMITTEE CHAIRS) \ CHAIRS*

- ✓ **Timothy Marmack**  
Approved 5-13-2019
- ✓ **Lorelle A S Peros**  
Approved 5-22-2019

##### *(ACADEMIC SENATE) \ SENATE CHAIR*

- Rosemary Vierra
- ✓ **Rosiana Azman**  
Approved 5-27-2019

##### *(ADMINISTRATION) \ VCAA*

- Kaheleonolani Dukelow
- Laura Nagle
- ✓ **Jonathon McKee**  
Approved 5-30-2019

Perkins grant funded

*(ADMINISTRATION) \\ CHANCELLOR*

- ✓ **Lui Hokoana**  
Approved 5-30-2019

*(BANNER REVIEW/INPUT) \\ BANNER SPECIALIST*

- ✓ **Debie Amby**  
Approved 9-6-2019

*(CATALOG & STAR INPUT) \\ CATALOG SPECIALIST*

- Debie Amby**
- Jean Pezzoli**

*(CATALOG & STAR INPUT) \\ STAR GPS SPECIALIST*

- Christine Ishihara**
- Shane Payba**

---

**1) Start Date**

Fall 2020

---

**Subject Code**

FMGT

**Number** ⓘ

120

**Title**

Introduction to Project Management

**Linked Institution Subject Codes**

No Course Matches

---

## A. Proposal Details

**A.1) Proposer Name(s)**

Clifford Rutherford

**A.2) Internal Proposal Date**

1/28/19

**A.3) Type of Proposal**

New

**A.4) General Education (Diversification) Consideration**

**A.5) Proposal Supporting Documents and Diversification Forms**

**A.6) Degrees and/or Certificates impacted by this action**

CONSTRUCTION TECHNOLOGY AAS - REQUIRED  
CONSTRUCTION TECHNOLOGY CA - ELECTIVE  
CONSTRUCTION TECHNOLOGY CO - REQUIRED  
CONSTRUCTION TECHNOLOGY - ELECTIVE

**A.7) Other affected Departments / Programs / Campuses**

UHWO BAS FMGT Concentration

**A.8) Other affected departments/programs/campuses have been consulted**

Yes

**A.9) Please outline details of consultation**

Dr. Jeff Rogers, Coordinator for BAS FMGT concentration at UH West Oahu, has been consulted on numerous occasions over the last 2 years via telephone and Go-to-Meeting video conference to ensure that the new FMGT 100, 120, 200, and 201 courses align with the UHWO BAS path.

**A.10) Proposal Impact(s)**

Teaching (lecturer, overload, etc)

**A.11) Reason/Justification for Proposal**

At the recommendation of the CTEC Advisory Committee and the Maui Facilities Engineers Leadership Council, the FMGT alpha and related curriculum is being adopted by the UHMC CTEC program for this and other new lower division (100-200 level) facilities related courses in order to meet industry and workforce demand for curriculum to facilitate transfer of CTEC AAS students to the UHWO BAS Business FMGT concentration.

# 1. General Information

---

**1.1) Title**

Intro to Project Management

**1.1a) Long Title**

Introduction to Project Management

**1.2) Description**

Introduces concepts and principles for the planning and management of major facility operations, renovation, and construction projects. Develops project management skills and explores best practices for planning and implementation processes to include: stakeholder engagement, budget and risk assessment and controls, scheduling, resource allocation and acquisition, and project closing.

**1.3) Department**

CTE

**1.4) Crosslisted Course(s)**

**1.5) Previous Subject Code, Number, and Title**

**1.6) Credit Options**

Fixed

**Fixed**

3 Credits

**1.7) Repeatability**



N/A

### 1.8) Grading Options

Audit (A)

Credit/No Credit (C)

Standard Letter A-F (L)

### 1.9) Prerequisites

- ENG 100 with grade C or better, and MATH 75X with grade C or better or placement at least MATH 100, or consent.

### 1.10) Corequisites

### 1.11) Catalog Requisite Information

FMGT 120

Prereq: ENG 100 with grade C or better, and MATH 75X with grade C or better or placement at least MATH 100, or consent.

Introduces concepts and principles for the planning and management of major facility operations, renovation, and construction projects. Develops project management skills and explores best practices for planning and implementation processes to include: stakeholder engagement, budget and risk assessment and controls, scheduling, resource allocation and acquisition, and project closing. 3cr; 45hr lec, TE 3.00

### 1.12) Catalog Information

Based on UHMC 2018-19 Catalog: P. 44- Program Map: (See attached Catalog Map Change); P. 117 Insert- FMGT 120 Course Description before Family Resources (See attached course description pages)

### 1.13) Recommended Preparation

None

## 2. Content

---

### 2.1) Course Student Learning Outcomes (SLOs)

Plan and manage facility and construction projects

**Comp Ref (Example: C1, C3)**

SLO 1

#### Linked Program Outcome

CTEC PLO 2: Use math, computer, and oral and written communication skills to solve construction project problems. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 3: Create and maintain accurate documentation of construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 4: Describe industry standard Green Building practices in construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 5: Read and interpret blueprints, and/or schematics, and specifications to plan projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 6: Demonstrate the craftsmanship standards of dependability, punctuality, and quality. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 7: Examine and use proper mechanical, electrical, and carpentry codes and standards applicable to construction and repair. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

Analyze data to develop and support effective management strategies

**Comp Ref (Example: C1, C3)**

SLO 2

#### Linked Program Outcome

CTEC PLO 2: Use math, computer, and oral and written communication skills to solve construction project problems. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 3: Create and maintain accurate documentation of construction and maintenance projects. (CONSTRUCTION TECHNOLOGY - SAFETY (CPD))  
CTEC PLO 5: Read and interpret blueprints, and/or schematics, and specifications to plan projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 6: Demonstrate the craftsmanship standards of dependability, punctuality, and quality. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
Create accurate documentation of construction and facility management projects  
**Comp Ref (Example: C1, C3)**

SLO 3

**Linked Program Outcome**

CTEC PLO 2: Use math, computer, and oral and written communication skills to solve construction project problems. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 3: Create and maintain accurate documentation of construction and maintenance projects. (CONSTRUCTION TECHNOLOGY - SAFETY (CPD))  
CTEC PLO 5: Read and interpret blueprints, and/or schematics, and specifications to plan projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))  
CTEC PLO 6: Demonstrate the craftsmanship standards of dependability, punctuality, and quality. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

**2.2) Course Competencies**

Identify project management processes and models

**Aligns with Course SLO**

SLO 1 SLO 2

Summarize the phases of project management

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3

Give examples of desirable facility and project management skills

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3

Identify benefits and risks of delegation

**Aligns with Course SLO**

SLO 1 SLO 2

Distinguish how project management differs from regular facility management duties

**Aligns with Course SLO**

SLO 1

Identify and engage project stakeholders

**Aligns with Course SLO**

None

Evaluate and plan strategies for effective communication and reporting

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3

Compare, select and administer construction contract models based on project needs and requirements

**Aligns with Course SLO**

SLO 1 SLO 2

Review financial plans and feasibility studies for major projects

**Aligns with Course SLO**

SLO 2

Create and oversee specifications and scope of work (SOW) statements for projects

**Aligns with Course SLO**

SLO 1 SLO 3

Select and implement policies, procedures, and best practices for facility and project management

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3

Identify and analyze project resources to include: baseline data on project scope, vendors, labor and materials costs, quality, space planning, scheduling and performance measurement; benchmarking, cost estimating, risk, process measurement data, and lessons learned to manage and generate contingency plans

**Aligns with Course SLO**

SLO 1 SLO 2

Create project schedules with scheduling tools such as bar charts, network diagrams, and other software recognized by the construction and facilities engineering trades

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3

Identify methods for procurement management and documenting budget costs and controls

**Aligns with Course SLO**

SLO 1 SLO 3

Compare and develop material and vendor resources for the planning and completion of projects

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3

Assess and employ strategies for risk management to include budget and resource planning, verification of licensing, insurance, and credentials

**Aligns with Course SLO**

SLO 1 SLO 2

Identify sustainability issues, practices, and organizations related to construction and facilities project management

**Aligns with Course SLO**

SLO 1 SLO 2

Accept deliverables or occupy space

**Aligns with Course SLO**

SLO 1 SLO 3

Close contracts and/or projects, and evaluate the outcomes

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3

### 3. College-wide Academic Student Learning Outcomes (CASLOs)

---

<https://sites.google.com/a/hawaii.edu/curriculum-committee/uh-maui-college/forms>

**3.1) Creativity Level**

Satisfy

**3.2) Critical Thinking Level**

Satisfy

**3.3) Information Retrieval and Technology**

**Level**

Satisfy

**3.4) Oral Communication Level**

Satisfy

**3.5) Quantitative Reasoning Level**

Satisfy

**3.6) Written Communication Level**

Satisfy

**3.7) Attach CASLO grid**

- FMGT 120 CASLO.pdf

### 4. Recommended Course Content and Timeline

---

**4.1) CONTENT**

**Content**

**Topic: Project Identification and Structure**

**Content**

**Topic: The Project Team**

**Topic: Communications for Projects**

**Topic: Project Management Responsibilities**

**Topic: Data Analysis for Project Planning**

**Topic: Material and Vendor Resources**

**Topic: Procurement, and Contracts**

**Topic: Scheduling**

**Topic: Project Documentation, Planning and Reporting Tools**

**Topic: Closing Projects and Evaluating Outcomes**

**Topic: Case Studies**

## 5. Text and Materials, Reference Materials, and Auxiliary Materials

---

**5.1) TEXTBOOK (Include Author, Title, Edition, Publisher and Year Published)**

Appropriate text(s) and materials will be chosen at the time the course is offered from those currently available in the field. Text may be supplemented with but not limited to videos, internet resources, workbooks, demonstration equipment and visual aids at the discretion of the instructor.

Example:

Project Management

By Adrienne Watt

Pub Date: 2014

Publisher: BCcampus

<https://open.umn.edu/opentextbooks/textbooks/project-management>

**5.2) Additional resources and/or fees required for this course.**

None

## 6. Delivery

---

**6.1) Intended Offering Terms**

Any

**6.2) Maximum Enrollment**

35 (Standard Lecture)

**6.3) Schedule Types**

Lecture

**6.4) Basis for Teaching Equivalency**

LECTURE-15

**6.5) Activities**

**Semester Type**

Standard Semester (15 weeks)

Activity Type	Meetings/Week	Hours/Week	Credit Ratio	Contact Hours	Credits
Lecture	1	3	1:1	45	3
Lecture/Lab			1:2	0	0
	1	3		45	3

Activity Type	Meetings/Week	Hours/Week	Credit Ratio	Contact Hours	Credits
Lab	1	3	1:3	0	0
				45	3

**6.6) Teaching Equivalency (TE)/Workload Calculation**

3/15 x 15= 3.0 TEs

**6.7) Proposal Summary**

At the recommendation of the CTEC Advisory Committee and the Maui Facilities Engineers Leadership Council, the FMGT alpha and related curriculum is being adopted by the UHMC CTEC program for this and other new lower division (100-200 level) facilities related courses in order to meet industry and workforce demand for curriculum to facilitate transfer of CTEC AAS students to the UHWO BAS Business FMGT concentration. Dr. Jeff Rogers, Coordinator for BAS FMGT concentration at UH West Oahu, has been consulted on numerous occasions over the last 2 years via telephone and Go-to-Meeting video conference to ensure that the new FMGT 100, 120, 200, and 201 courses align with the UHWO BAS path.

## Curriculum Committee (For Administrative Use Only)

---

1) Start Date

2) Type of Proposal

-

3) Curriculum Proposal Number

4) Special Topics Start Term

5) Special Topics End Term - Special Topics courses can be active for two years.

6) General Education (Diversification) Categories Approved

7) Diversification Forms (Signed) and other supporting documents.

8) GE Start Term

9) GET End Term (Designation is good for five years.)

10) Curriculum Committee notes

## Banner Data Elements (For Administrative Use Only)

---

1) Long Title

1a) Transcript Title

Intro to Project Management

2) Description

3) Effective Term

4) Status

--

5) College

6) Division

7) Department

8) Approval Code

--

--

--

--

9a) CEU or Credit  
(Low)

9b) CEU or Credit  
Options

9c) CEU or Credit  
(High)

--

10a) Billing (Low)

10b) Billing Options

10c) Billing (High)

--

11a) Lecture (Low)

11b) Lecture Options

11c) Lecture (High)

--

12a) Lab (Low)

12b) Lab (Options)

12c) Lab (High)

--

13a) Other (Low)

13b) Other Options

13c) Other (High)

--

14a) Contact (Low)

14b) Contact Options

14c) Contact (High)

--

15) Repeatability

16) Course Level

17) Schedule Type

18) Workload

3/15 x 15= 3.0 TEs

19) Grading Options

20) Default Grading Option Code

--

21) Prerequisites

None

22) Corequisites

23) Equivalent Course(s)

Course

Start Term

End Term

24) Degree Attribute

25) Course Text

Course Text

26) Scabase End term

## 27) Mutually Exclusive Course(s)

Course

Start Term

End Term

Banner Integration Flag

Banner Integration Results

Institutional Reporting Codes

--

Integration Partner Codes

Course URL

Learning Objectives

## Banner Integration

---

Banner Integration Flag

Banner Integration Results

Course Fees

Fee Code Detail

Fee Code Amount

## 7. Course Dependencies

---

### 7.1) Dependencies

✓ AAS-CTEC - CONSTRUCTION TECHNOLOGY (AAS)

[View Programs >](#)

✓ CA-CTEC-FMGT - CONSTRUCTION TECHNOLOGY- FACILITIES MANAGEMENT (CA)

[View Programs >](#)

## 8. Attachments

---

- CTEC Catalog Pages (FA 20) All.pdf

# FMGT 200 Mechanical Systems Design and Construction

Approved | Fall 2020

## Proposal Information

---

### Workflow Status

Approved 5-30-2019

#### Proposer

- ✓ **Clifford Rutherford (Submitter)**  
Submitted 3-18-2019

Approved 5-30-2019

#### DEPARTMENT (CTE) \\ Curriculum Department Representative

- Lawrence Martinson
- ✓ **Clifford Rutherford**  
Approved 3-18-2019

Approved 5-30-2019

#### DEPARTMENT (CTE) \\ Department Chair

- ✓ **Thomas Hussey**  
Approved 3-18-2019

Approved 5-30-2019

#### DEPARTMENT (CTE) \\ Curriculum Department Representative

- Lawrence Martinson
- ✓ **Clifford Rutherford**  
Approved 3-18-2019

Approved 5-30-2019

#### (CURRICULUM COMMITTEE CHAIRS) \\ CHAIRS

- ✓ **Timothy Marmack**  
Approved 5-13-2019
- ✓ **Lorelle A S Peros**  
Approved 5-22-2019

Approved 5-30-2019

#### (ACADEMIC SENATE) \\ SENATE CHAIR

- Rosemary Vierra
- ✓ **Rosiana Azman**  
Approved 5-27-2019

Approved 5-30-2019

#### (ADMINISTRATION) \\ VCAA

- Kaheleonolani Dukelow
- Laura Nagle
- ✓ **Jonathon McKee**  
Approved 5-30-2019



Grant funded

*(ADMINISTRATION) \\  
CHANCELLOR*

- ✓ **Lui Hokoana**  
Approved 5-30-2019

*(BANNER REVIEW/INPUT) \\  
BANNER SPECIALIST*

- ✓ **Debie Amby**  
Approved 9-6-2019

*(CATALOG & STAR INPUT) \\  
CATALOG SPECIALIST*

- ✉ **Debie Amby**
- ✉ **Jean Pezzoli**

*(CATALOG & STAR INPUT) \\  
STAR GPS SPECIALIST*

- ✉ **Christine Ishihara**
- ✉ **Shane Payba**

---

**1) Start Date**

Fall 2020

---

**Subject Code**

FMGT

**Number** ⓘ

200

**Title**

Mechanical Systems Design and Construction

**Linked Institution Subject Codes**

No Course Matches

---

## A. Proposal Details

**A.1) Proposer Name(s)**

Clifford Rutherford

**A.2) Internal Proposal Date**

1/28/19

**A.3) Type of Proposal**

New

**A.4) General Education (Diversification) Consideration**

**A.5) Proposal Supporting Documents and Diversification Forms**

**A.6) Degrees and/or Certificates impacted by this action**

CONSTRUCTION TECHNOLOGY AAS - REQUIRED  
CONSTRUCTION TECHNOLOGY CA - REQUIRED  
CONSTRUCTION TECHNOLOGY CO - REQUIRED  
CONSTRUCTION TECHNOLOGY CO - ELECTIVE

**A.7) Other affected Departments / Programs / Campuses**

UHWO BAS FMGT Concentration

**A.8) Other affected departments/programs/campuses have been consulted**

Yes

**A.9) Please outline details of consultation**

At the recommendation of the CTEC Advisory Committee and the Maui Facilities Engineers Leadership Council, the FMGT alpha and related curriculum is being adopted by the UHMC CTEC program for this and other new lower division (100-200 level) facilities related courses in order to meet industry and workforce demand for curriculum to facilitate transfer of CTEC AAS students to the UHWO BAS Business FMGT concentration. Dr. Jeff Rogers, Coordinator for BAS FMGT concentration at UH West Oahu, has been consulted on numerous occasions over the last 2 years via telephone and Go-to-Meeting video conference to ensure that the new FMGT 100, 120, 200, and 201 courses align with the UHWO BAS path.

**A.10) Proposal Impact(s)**

Teaching (lecturer, overload, etc)

**A.11) Reason/Justification for Proposal**

Lecturer to support additional load of new CA pathway to AAS or fill behind current faculty for other program courses. Current program faculty at maximum load.

# 1. General Information

---

**1.1) Title**

Mechanical Systems Design and Construction

**1.1a) Long Title**

Mechanical Systems Design and Construction

**1.2) Description**

Explores commercial building mechanical and environmental systems and their relationship to occupant comfort and satisfaction. Focuses on building systems operation, diagnostics, and optimization of comfort and convenience features to manage and reduce energy consumption.

**1.3) Department**

CTE

**1.4) Crosslisted Course(s)**

**1.5) Previous Subject Code, Number, and Title**

**1.6) Credit Options**

Fixed

**Fixed**

3 Credits

### 1.7) Repeatability

N/A

### 1.8) Grading Options

Audit (A)

Credit/No Credit (C)

Standard Letter A-F (L)

### 1.9) Prerequisites

- ENG 100 with grade C or better, and MATH 75X with grade C or better or placement at least MATH 100, or consent.

### 1.10) Corequisites

### 1.11) Catalog Requisite Information

FMGT 200

Prereq: ENG 100 with grade C or better, and MATH 75X with grade C or better or placement at least MATH 100, or consent.

Explores commercial building mechanical and environmental systems and their relationship to occupant comfort and satisfaction. Focuses on building systems operation, diagnostics, and optimization of comfort and convenience features to manage and reduce energy consumption. 3cr; 45hr lec, TE 3.00

### 1.12) Catalog Information

Based on UHMC 2018-19 Catalog: P. 44- Program Map: (See attached Catalog Map Change); P. 117 Insert- FMGT 200 Course Description before Family Resources (See attached course description pages)

### 1.13) Recommended Preparation

None

## 2. Content

---

### 2.1) Course Student Learning Outcomes (SLOs)

Recognize various environmental conditions that impact occupants and systems

**Comp Ref (Example: C1, C3)**

SLO 1

**Linked Program Outcome**

CTEC PLO 4: Describe industry standard Green Building practices in construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 7: Examine and use proper mechanical, electrical, and carpentry codes and standards applicable to construction and repair. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

Describe how a building's systems and components correlate and interact

**Comp Ref (Example: C1, C3)**

SLO 2

**Linked Program Outcome**

CTEC PLO 4: Describe industry standard Green Building practices in construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 5: Read and interpret blueprints, and/or schematics, and specifications to plan projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 7: Examine and use proper mechanical, electrical, and carpentry codes and standards applicable to construction and repair. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

Recall building assessment techniques and retrofit approaches to reduce energy use

**Comp Ref (Example: C1, C3)**

SLO 3

**Linked Program Outcome**

CTEC PLO 4: Describe industry standard Green Building practices in construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 7: Examine and use proper mechanical, electrical, and carpentry codes and standards applicable to construction and repair. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

Explain optimization approaches for heating and cooling units, systematic diagnostic procedures, and determination of repair needs

**Comp Ref (Example: C1, C3)**

SLO 4

**Linked Program Outcome**

CTEC PLO 2: Use math, computer, and oral and written communication skills to solve construction project problems. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 4: Describe industry standard Green Building practices in construction and maintenance projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 5: Read and interpret blueprints, and/or schematics, and specifications to plan projects. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 7: Examine and use proper mechanical, electrical, and carpentry codes and standards applicable to construction and repair. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

## 2.2) Course Competencies

Describe major mechanical system components and energy loads in commercial buildings

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3 SLO 4

Convert energy units to BTUs and calculate energy use index for a building

**Aligns with Course SLO**

SLO 2 SLO 3 SLO 4

Identify and prioritize conservation opportunities

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3 SLO 4

Identify opportunities to improve operation and maintenance procedures

**Aligns with Course SLO**

SLO 1 SLO 3 SLO 4

Apply data to benchmark a buildings energy consumption and/or carbon footprint

**Aligns with Course SLO**

SLO 2 SLO 3 SLO 4

Discuss lighting principles and terminology

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3

Identify cost saving opportunities for efficient lighting systems

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3

Give examples of the dynamic components of indoor environmental quality in relation to source control, occupant sensitivity and ventilation

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 4

Develop effective strategies and practices for maintaining acceptable and efficient indoor environmental quality

**Aligns with Course SLO**

None

Describe building automation systems and Computer Maintenance Management Systems (CMMS), components, and controls to include lighting, electrical, and communications; thermal, comfort, and ventilation; and security and fire protection

**Aligns with Course SLO**

SLO 2 SLO 3 SLO 4

Describe ways to maintain an energy efficient and reliable facility electrical system

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3

12. Recognize sustainability and green building organizations and practices for facilities

**Aligns with Course SLO**

SLO 1

Create proposals for energy and water conservation for facilities and projects

**Aligns with Course SLO**

SLO 2 SLO 3

Cite best practices for operations and maintenance of key building system components

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3 SLO 4

Discuss Key Performance Indicators (KPIs) for energy efficiency

**Aligns with Course SLO**

SLO 1 SLO 2 SLO 3 SLO 4

### 3. College-wide Academic Student Learning Outcomes (CASLOs)

---

<https://sites.google.com/a/hawaii.edu/curriculum-committee/uh-maui-college/forms>

**3.1) Creativity Level**

Does Not Satisfy

**3.2) Critical Thinking Level**

Satisfy

**3.3) Information Retrieval and Technology Level**

Satisfy

**3.4) Oral Communication Level**

Satisfy

**3.5) Quantitative Reasoning Level**

Satisfy

**3.6) Written Communication Level**

Does Not Satisfy

**3.7) Attach CASLO grid**

- FMGT 200 CASLO.pdf

### 4. Recommended Course Content and Timeline

---

**4.1) CONTENT**

**Content**

**Topic: Building Systems Dynamics and Physical Properties**

**Topic: Occupancy and Use**

**Topic: Indoor Environmental Quality (IEQ)**

**Topic: Computer Maintenance Management Systems (CMMS)**

**Topic: HVAC Systems Performance**

**Topic: Lighting**

**Topic: Water and Waste Management**

**Topic: Mechanical Systems Operations and Maintenance**

**Topic: Building Systems Optimization**

**Topic: Materials and Resources**

**Topic: Environmental Purchasing**

## 5. Text and Materials, Reference Materials, and Auxiliary Materials

---

### 5.1) TEXTBOOK (Include Author, Title, Edition, Publisher and Year Published)

Appropriate text(s) and materials will be chosen at the time the course is offered from those currently available in the field. Text may be supplemented with but not limited to videos, internet resources, workbooks, demonstration equipment and visual aids at the discretion of the instructor.

Example:

Mechanical and Electrical Equipment for Buildings

Publisher: Wiley; 12 edition (October 6, 2014)

ISBN-10: 9781118615904

ISBN-13: 978-1118615904

[https://www.amazon.com/Mechanical-Electrical-Equipment-Buildings-Grondzik/dp/1118615905/ref=pd\\_cp\\_14\\_1?](https://www.amazon.com/Mechanical-Electrical-Equipment-Buildings-Grondzik/dp/1118615905/ref=pd_cp_14_1?pd_rd_w=7vZQt&pf_rd_p=ef4dc990-a9ca-4945-ae0b-f8d549198ed6&pf_rd_r=KENW59P8X9XR0191X5C5&pd_rd_r=c5a18500-4824-11e9-9fed-6f308a1afb98&pd_rd_wg=yydE1&pd_rd_j=1118615905&psc=1&refRID=KENW59P8X9XR0191X5C5)

[pd\\_rd\\_w=7vZQt&pf\\_rd\\_p=ef4dc990-a9ca-4945-ae0b-f8d549198ed6&pf\\_rd\\_r=KENW59P8X9XR0191X5C5&pd\\_rd\\_r=c5a18500-4824-11e9-9fed-6f308a1afb98&pd\\_rd\\_wg=yydE1&pd\\_rd\\_j=1118615905&psc=1&refRID=KENW59P8X9XR0191X5C5](https://www.amazon.com/Mechanical-Electrical-Equipment-Buildings-Grondzik/dp/1118615905/ref=pd_cp_14_1?pd_rd_w=7vZQt&pf_rd_p=ef4dc990-a9ca-4945-ae0b-f8d549198ed6&pf_rd_r=KENW59P8X9XR0191X5C5&pd_rd_r=c5a18500-4824-11e9-9fed-6f308a1afb98&pd_rd_wg=yydE1&pd_rd_j=1118615905&psc=1&refRID=KENW59P8X9XR0191X5C5)

Or

Facilities Manager's Desk Reference / Edition 2

by Jane M. Wiggins

ISBN-10: 1118462947

ISBN-13: 9781118462942

Pub. Date: 04/14/2014

Publisher: Wiley

[https://www.barnesandnoble.com/w/facilities-managers-desk-reference-jane-m-wiggins/1124318144?](https://www.barnesandnoble.com/w/facilities-managers-desk-reference-jane-m-wiggins/1124318144?ean=9781118462942&pcta=n&st=PLA&sid=BNB_ADL+Core+Good+New+Textbooks+-+Desktop+Low&sourceId=PLAGoNA&dpid=tdtve346c&2sid=Google_c&gclid=EAlaIqobChMII73b8YmK4QIV3x-tBh3-HQa1EAQYGyABEgK8I_D_BwE)

[ean=9781118462942&pcta=n&st=PLA&sid=BNB\\_ADL+Core+Good+New+Textbooks+-](https://www.barnesandnoble.com/w/facilities-managers-desk-reference-jane-m-wiggins/1124318144?ean=9781118462942&pcta=n&st=PLA&sid=BNB_ADL+Core+Good+New+Textbooks+-+Desktop+Low&sourceId=PLAGoNA&dpid=tdtve346c&2sid=Google_c&gclid=EAlaIqobChMII73b8YmK4QIV3x-tBh3-HQa1EAQYGyABEgK8I_D_BwE)

[+Desktop+Low&sourceId=PLAGoNA&dpid=tdtve346c&2sid=Google\\_c&gclid=EAlaIqobChMII73b8YmK4QIV3x-tBh3-](https://www.barnesandnoble.com/w/facilities-managers-desk-reference-jane-m-wiggins/1124318144?ean=9781118462942&pcta=n&st=PLA&sid=BNB_ADL+Core+Good+New+Textbooks+-+Desktop+Low&sourceId=PLAGoNA&dpid=tdtve346c&2sid=Google_c&gclid=EAlaIqobChMII73b8YmK4QIV3x-tBh3-HQa1EAQYGyABEgK8I_D_BwE)

[HQa1EAQYGyABEgK8I\\_D\\_BwE](https://www.barnesandnoble.com/w/facilities-managers-desk-reference-jane-m-wiggins/1124318144?ean=9781118462942&pcta=n&st=PLA&sid=BNB_ADL+Core+Good+New+Textbooks+-+Desktop+Low&sourceId=PLAGoNA&dpid=tdtve346c&2sid=Google_c&gclid=EAlaIqobChMII73b8YmK4QIV3x-tBh3-HQa1EAQYGyABEgK8I_D_BwE)

### 5.2) Additional resources and/or fees required for this course.

None

## 6. Delivery

---

### 6.1) Intended Offering Terms

Any

### 6.2) Maximum Enrollment

35 (Standard Lecture)

### 6.3) Schedule Types

Lecture

### 6.4) Basis for Teaching Equivalency

LECTURE-15

### 6.5) Activities

#### Semester Type

Standard Semester (15 weeks)

Activity Type	Meetings/Week	Hours/Week	Credit Ratio	Contact Hours	Credits
Lecture	1	3	1:1	45	3
Lecture/Lab			1:2	0	0
Lab			1:3	0	0
	1	3		45	3

### 6.6) Teaching Equivalency (TE)/Workload Calculation

3/15 x 15= 3.0 TEs

### 6.7) Proposal Summary

At the recommendation of the CTEC Advisory Committee and the Maui Facilities Engineers Leadership Council, the FMGT alpha and related curriculum is being adopted by the UHMC CTEC program for this and other new lower division (100-200 level) facilities related courses in

order to meet industry and workforce demand for curriculum to facilitate transfer of CTEC AAS students to the UHWO BAS Business FMGT concentration. Dr. Jeff Rogers, Coordinator for BAS FMGT concentration at UH West Oahu, has been consulted on numerous occasions over the last 2 years via telephone and Go-to-Meeting video conference to ensure that the new FMGT 100, 120, 200, and 201 courses align with the UHWO BAS path.

## Curriculum Committee (For Administrative Use Only)

---

1) Start Date

2) Type of Proposal

--

3) Curriculum Proposal Number

4) Special Topics Start Term

5) Special Topics End Term - Special Topics courses can be active for two years.

6) General Education (Diversification) Categories Approved

7) Diversification Forms (Signed) and other supporting documents.

8) GE Start Term

9) GET End Term (Designation is good for five years.)

10) Curriculum Committee notes

## Banner Data Elements (For Administrative Use Only)

---

1) Long Title

1a) Transcript Title

Mechanical Systems Design and Construction

2) Description

3) Effective Term

4) Status

--

5) College

--

6) Division

--

7) Department

--

8) Approval Code

--

9a) CEU or Credit (Low)      9b) CEU or Credit Options      9c) CEU or Credit (High)

-

10a) Billing (Low)      10b) Billing Options      10c) Billing (High)

-

11a) Lecture (Low)      11b) Lecture Options      11c) Lecture (High)

-

12a) Lab (Low)      12b) Lab (Options)      12c) Lab (High)

-

13a) Other (Low)      13b) Other Options      13c) Other (High)

-

14a) Contact (Low)      14b) Contact Options      14c) Contact (High)

-

15) Repeatability

16) Course Level

17) Schedule Type

18) Workload

3/15 x 15= 3.0 TEs

19) Grading Options

20) Default Grading Option Code

---

21) Prerequisites

22) Corequisites

None

23) Equivalent Course(s)

Course

Start Term

End Term

24) Degree Attribute

25) Course Text

Course Text

26) Scabase End term

27) Mutually Exclusive Course(s)

Course

Start Term

End Term

Banner Integration Flag

Banner Integration Results



**Institutional Reporting Codes**

---

**Integration Partner Codes**

**Course URL**

**Learning Objectives**

## **Banner Integration**

---

**Banner Integration Flag**

**Banner Integration Results**

**Course Fees**

**Fee Code Detail**

**Fee Code Amount**

## **7. Course Dependencies**

---

**7.1) Dependencies**

✓ AAS-CTEC - CONSTRUCTION TECHNOLOGY (AAS)

[View Programs >](#)

## **8. Attachments**

---

- CTEC Catalog Pages (FA 20) All.pdf

# FMGT 201 Facilities Operations and Leadership

Approved | Fall 2020

## Proposal Information

---

### Workflow Status

#### Proposer

- ✓ **Clifford Rutherford (Submitter)**  
Submitted 3-18-2019

#### DEPARTMENT (CTE) \\ Curriculum Department Representative

- Lawrence Martinson
- ✓ **Clifford Rutherford**  
Approved 3-18-2019

#### DEPARTMENT (CTE) \\ Department Chair

- ✓ **Thomas Hussey**  
Approved 3-18-2019

#### DEPARTMENT (CTE) \\ Curriculum Department Representative

- Lawrence Martinson
- ✓ **Clifford Rutherford**  
Approved 3-18-2019

#### (CURRICULUM COMMITTEE CHAIRS) \\ CHAIRS

- ✓ **Timothy Marmack**  
Approved 5-13-2019
- ✓ **Lorelle A S Peros**  
Approved 5-22-2019

#### (ACADEMIC SENATE) \\ SENATE CHAIR

- Rosemary Vierra
- ✓ **Rosiana Azman**  
Approved 5-27-2019

#### (ADMINISTRATION) \\ VCAA

- Kaheleonolani Dukelow
- Laura Nagle
- ✓ **Jonathon McKee**  
Approved 5-30-2019

Perkins Grant funded

*(ADMINISTRATION) \\ CHANCELLOR*

- ✓ **Lui Hokoana**  
Approved 5-30-2019

*(BANNER REVIEW/INPUT) \\ BANNER SPECIALIST*

- ✓ **Debie Amby**  
Approved 9-6-2019

*(CATALOG & STAR INPUT) \\ CATALOG SPECIALIST*

- ☒ **Debie Amby**
- ☒ **Jean Pezzoli**

*(CATALOG & STAR INPUT) \\ STAR GPS SPECIALIST*

- ☒ **Christine Ishihara**
- ☒ **Shane Payba**

---

**1) Start Date**

Fall 2020

---

**Subject Code**

FMGT

**Number** ⓘ

201

**Title**

Facilities Operations and Leadership

**Linked Institution Subject Codes**

No Course Matches

---

## A. Proposal Details

**A.1) Proposer Name(s)**

Clifford Rutherford

**A.2) Internal Proposal Date**

1/28/19

**A.3) Type of Proposal**

New

**A.4) General Education (Diversification) Consideration**

**A.5) Proposal Supporting Documents and Diversification Forms**

**A.6) Degrees and/or Certificates impacted by this action**

CONSTRUCTION TECHNOLOGY AAS - REQUIRED CONSTRUCTION TECHNOLOGY CA - REQUIRED  
CONSTRUCTION TECHNOLOGY CO - ELECTIVE CONSTRUCTION TECHNOLOGY CO - REQUIRED CONSTRUCTION TECHNOLOGY - ELECTIVE

**A.7) Other affected Departments / Programs / Campuses**

UHWO BAS FMGT Concentration

**A.8) Other affected departments/programs/campuses have been consulted**

Yes

**A.9) Please outline details of consultation**

Dr. Jeff Rogers, Coordinator for BAS FMGT concentration at UH West Oahu, has been consulted on numerous occasions over the last 2 years via telephone and Go-to-Meeting video conference to ensure that the new FMGT 100, 120, 200, and 201 courses align with the UHWO BAS path.

**A.10) Proposal Impact(s)**

Teaching (lecturer, overload, etc)

**A.11) Reason/Justification for Proposal**

At the recommendation of the CTEC Advisory Committee and the Maui Facilities Engineers Leadership Council, the FMGT alpha and related curriculum is being adopted by the UHMC CTEC program for this and other new lower division (100-200 level) facilities related courses in order to meet industry and workforce demand for curriculum to facilitate transfer of CTEC AAS students to the UHWO BAS Business FMGT concentration.

# 1. General Information

---

**1.1) Title**

Facilities Operations and Leadership

**1.1a) Long Title**

Facilities Operations and Leadership

**1.2) Description**

Examines the key principles of management in the facilities engineering industry. Focuses on leadership skill building and decision-making processes within the managerial levels of a commercial facility. Explores management concepts, strategies, and tools essential for organizational effectiveness.

**1.3) Department**

CTE

**1.4) Crosslisted Course(s)**

**1.5) Previous Subject Code, Number, and Title**

**1.6) Credit Options**

Fixed

**Fixed**

2 Credits

### 1.7) Repeatability

N/A

### 1.8) Grading Options

Audit (A)

Credit/No Credit (C)

Standard Letter A-F (L)

### 1.9) Prerequisites

- FMGT 120, or consent

### 1.10) Corequisites

### 1.11) Catalog Requisite Information

FMGT 201

Prereq: FMGT 120

Examines the key principles of management in the facilities engineering industry. Focuses on leadership skill building and decision-making processes within the managerial levels of a commercial facility. Explores management concepts, strategies, and tools essential for organizational effectiveness.

2cr; 30hr lec, TE 2.00

### 1.12) Catalog Information

Based on UHMC 2018-19 Catalog: P. 44- Program Map: (See attached Catalog Map Change); P. 117 Insert- FMGT 201 Course Description before Family Resources (See attached course description pages)

### 1.13) Recommended Preparation

None

## 2. Content

---

### 2.1) Course Student Learning Outcomes (SLOs)

Apply leadership skills that impact organizational effectiveness

**Comp Ref (Example: C1, C3)**

SLO 1

**Linked Program Outcome**

CTEC PLO 3: Create and maintain accurate documentation of construction and maintenance projects. (CONSTRUCTION TECHNOLOGY - SAFETY (CPD))

CTEC PLO 6: Demonstrate the craftsmanship standards of dependability, punctuality, and quality. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

Demonstrate decision-making skills by applying key management concepts and principles

**Comp Ref (Example: C1, C3)**

SLO 2

**Linked Program Outcome**

CTEC PLO 2: Use math, computer, and oral and written communication skills to solve construction project problems. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

CTEC PLO 3: Create and maintain accurate documentation of construction and maintenance projects. (CONSTRUCTION TECHNOLOGY - SAFETY (CPD))

CTEC PLO 6: Demonstrate the craftsmanship standards of dependability, punctuality, and quality. (CONSTRUCTION TECHNOLOGY -SAFETY (CPD))

### 2.2) Course Competencies

Exhibit leadership styles, principally working as teams

**Aligns with Course SLO**

SLO 1 SLO 2

Cultivate leadership skills such as the ability to persuade, motivate and encourage employees

**Aligns with Course SLO**

SLO 1 SLO 2

Communicate effectively both in writing and orally

**Aligns with Course SLO**

SLO 1 SLO 2

Develop positive employee and vendor relation skills

**Aligns with Course SLO**

SLO 1 SLO 2

Manage occupant issues with understanding and sensitivity

**Aligns with Course SLO**

SLO 1 SLO 2

Develop skills for conflict management

**Aligns with Course SLO**

SLO 1 SLO 2

Achieve positive working relationships with employees

**Aligns with Course SLO**

SLO 1 SLO 2

Manage diversity in the workplace

**Aligns with Course SLO**

SLO 1 SLO 2

### 3. College-wide Academic Student Learning Outcomes (CASLOs)

---

<https://sites.google.com/a/hawaii.edu/curriculum-committee/uh-maui-college/forms>

**3.1) Creativity Level**

Satisfy

**3.2) Critical Thinking Level**

Satisfy

**3.3) Information Retrieval and Technology Level**

Satisfy

**3.4) Oral Communication Level**

Satisfy

**3.5) Quantitative Reasoning Level**

Does Not Satisfy

**3.6) Written Communication Level**

Satisfy

**3.7) Attach CASLO grid**

- FMGT 201 CASLO.pdf

### 4. Recommended Course Content and Timeline

---

**4.1) CONTENT**

**Content**

**Topic: Managing Organization Change**

**Topic: Theories and Concepts of Quality Management**

**Topic: Quality Management & Continuously Improvement Process and Tools**

**Topic: Power, Motivation, Empowerment, and Management Styles**

**Topic: Communication Skills**

## Content

Topic: Goal-Setting, Coaching, and Conflict Management

Topic: Organizational Behavior & High Performance Teams

Topic: Challenging of Diversity & Strategic Career Planning

Topic: Space and Resource Allocation

## 5. Text and Materials, Reference Materials, and Auxiliary Materials

---

### 5.1) TEXTBOOK (Include Author, Title, Edition, Publisher and Year Published)

Appropriate text(s) and materials will be chosen at the time the course is offered from those currently available in the field. Text may be supplemented with but not limited to videos, internet resources, workbooks, demonstration equipment and visual aids at the discretion of the instructor.

Examples:

Leadership and Management in the Hospitality Industry (3rd edition)

by Woods, R.H. & King, J.Z. (2010).

Educational Institute, AH&LA.

ISBN 978-0-86612-347-1

Or

The Facility Manager's Field Guide Paperback – June 17, 2011

by Cornel Rosario (Author), Mark Sekula (Author)

ISBN-10: 0982511612

ISBN-13: 978-0982511619

### 5.2) Additional resources and/or fees required for this course.

None

## 6. Delivery

---

### 6.1) Intended Offering Terms

Any

### 6.2) Maximum Enrollment

35 (Standard Lecture)

### 6.3) Schedule Types

Lecture

### 6.4) Basis for Teaching Equivalency

LECTURE-15

### 6.5) Activities

#### Semester Type

Standard Semester (15 weeks)

Activity Type	Meetings/Week	Hours/Week	Credit Ratio	Contact Hours	Credits
Lecture	1	2	1:1	30	2
Lecture/Lab			1:2	0	0
Lab			1:3	0	0
	1	2		30	2

### 6.6) Teaching Equivalency (TE)/Workload Calculation

2/15 x 15= 2.0 TEs

### 6.7) Proposal Summary

At the recommendation of the CTEC Advisory Committee and the Maui Facilities Engineers Leadership Council, the FMGT alpha and related curriculum is being adopted by the UHMC CTEC program for this and other new lower division (100-200 level) facilities related courses in order to meet industry and workforce demand for curriculum to facilitate transfer of CTEC AAS students to the UHWO BAS Business FMGT concentration. Dr. Jeff Rogers, Coordinator for BAS FMGT concentration at UH West Oahu, has been consulted on numerous occasions over the last 2 years via telephone and Go-to-Meeting video conference to ensure that the new FMGT 100, 120, 200, and 201 courses align with the UHWO BAS path.

## Curriculum Committee (For Administrative Use Only)

---

1) Start Date

2) Type of Proposal

—

3) Curriculum Proposal Number

4) Special Topics Start Term

5) Special Topics End Term - Special Topics courses can be active for two years.

6) General Education (Diversification) Categories Approved

7) Diversification Forms (Signed) and other supporting documents.

8) GE Start Term

9) GET End Term (Designation is good for five years.)

10) Curriculum Committee notes

## Banner Data Elements (For Administrative Use Only)

---

1) Long Title

1a) Transcript Title

Facilities Operations and Leadership

2) Description

3) Effective Term

4) Status

—



5) College \_\_\_\_\_ 6) Division \_\_\_\_\_ 7) Department \_\_\_\_\_ 8) Approval Code \_\_\_\_\_

9a) CEU or Credit (Low) \_\_\_\_\_ 9b) CEU or Credit Options \_\_\_\_\_ 9c) CEU or Credit (High) \_\_\_\_\_

10a) Billing (Low) \_\_\_\_\_ 10b) Billing Options \_\_\_\_\_ 10c) Billing (High) \_\_\_\_\_

11a) Lecture (Low) \_\_\_\_\_ 11b) Lecture Options \_\_\_\_\_ 11c) Lecture (High) \_\_\_\_\_

12a) Lab (Low) \_\_\_\_\_ 12b) Lab (Options) \_\_\_\_\_ 12c) Lab (High) \_\_\_\_\_

13a) Other (Low) \_\_\_\_\_ 13b) Other Options \_\_\_\_\_ 13c) Other (High) \_\_\_\_\_

14a) Contact (Low) \_\_\_\_\_ 14b) Contact Options \_\_\_\_\_ 14c) Contact (High) \_\_\_\_\_

15) Repeatability \_\_\_\_\_ 16) Course Level \_\_\_\_\_

17) Schedule Type \_\_\_\_\_ 18) Workload 2/15 x 15 = 2.0 TEs

19) Grading Options \_\_\_\_\_ 20) Default Grading Option Code \_\_\_\_\_

21) Prerequisites None 22) Corequisites \_\_\_\_\_

23) Equivalent Course(s) \_\_\_\_\_  
Course \_\_\_\_\_ Start Term \_\_\_\_\_ End Term \_\_\_\_\_

24) Degree Attribute \_\_\_\_\_

25) Course Text \_\_\_\_\_  
Course Text \_\_\_\_\_

26) Scabase End term \_\_\_\_\_

27) Mutually Exclusive Course(s) \_\_\_\_\_  
Course \_\_\_\_\_ Start Term \_\_\_\_\_ End Term \_\_\_\_\_

**Banner Integration Flag**

**Banner Integration Results**

**Institutional Reporting Codes**

—

**Integration Partner Codes**

**Course URL**

**Learning Objectives**

## **Banner Integration**

---

**Banner Integration Flag**

**Banner Integration Results**

**Course Fees**

**Fee Code Detail**

**Fee Code Amount**

## **7. Course Dependencies**

---

**7.1) Dependencies**

There are no dependencies

## **8. Attachments**

---

- CTEC Catalog Pages (FA 20) All.pdf