GAVILAN COLLEGE
5055 Santa Teresa Blvd
Gilroy, CA 95023

Course Outline

COURSE: CARP 219 DIVISION: 50 ALSO LISTED AS:

TERM EFFECTIVE: Fall 2016 **Inactive Course**

SHORT TITLE: RIGGING

LONG TITLE: Rigging

Units	Number of Weeks	Type	Contact Hours/Week	Total Contact Hours
1	1	Lecture:	16	16
		Lab:	20	20
		Other:	0	0
		Total:	36	36

COURSE DESCRIPTION:

This course familiarizes apprentices with the equipment and the procedures to safely rig and hoist various loads on the jobsite.

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: C - Credit - Degree Non Applicable

GRADING MODES
L - Standard Letter Grade

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:
02 - Lecture and/or discussion
03 - Lecture/Laboratory
04 - Laboratory/Studio/Activity

STUDENT LEARNING OUTCOMES:
1. Describe a basic rigging operation.
Measure: Quizzes, Written Exams, Class Performance
PLO: 1
ILO: 1,2,3,7

GE-LO: N/A

Anticipated Year of Assessment: Fall 2016

2. Correctly calculate the Working Load Limit for a specific wire rope.

Measure: Quizzes, Written Exams, Class Performance

PLO: 1

ILO: 1,2,3,7

GE-LO: N/A

Anticipated Year of Assessment: Fall 2016

3. Demonstrate industry accepted safe working practices.

Measure: Quizzes, Written Exams, Class Performance

PLO: 1

ILO: 1,2,3,7

GE-LO: N/A

Anticipated Year of Assessment: Fall 2016

4. Identify the inventions that are the basis for modern rigging tools.

Measure: Quizzes, Written Exams, Class Performance

PLO: 1

ILO: 1,2,3,7

GE-LO: N/A

Anticipated Year of Assessment: Fall 2016

5. Identify the components of wire rope and the various configurations of wire rope commonly used. Inspect wire rope using industry standard criteria.

Measure: Quizzes, Written Exams, Class Performance

PLO: 1

ILO: 1,2,3,7

GE-LO: N/A

Anticipated Year of Assessment: Fall 2016

6. Determine the center of gravity and the weight of a load. Identify the best hitch configuration for a given load. Calculate the stress loads on the slings. Identify standard types of cranes used in rigging.

Measure: Quizzes, Written Exams, Class Performance

PLO: 1

ILO: 1,2,3,7

GE-LO: N/A

Anticipated Year of Assessment: Fall 2016

7. Identify proper chain markings and applications inspect chain using industry standard criteria.

Measure: Quizzes, Written Exams, Class Performance

PLO: 1

ILO: 1,2,3,7

GE-LO: N/A

Anticipated Year of Assessment: Fall 2016

8. Describe the basic construction and design of slings. Select the proper type sling for a specific rigging operation. Inspect slings using industry standard criteria.

Measure: Quizzes, Written Exams, Class Performance

PLO: 1

ILO: 1,2,3,7

GE-LO: N/A

Anticipated Year of Assessment: Fall 2016

9. Identify the construction and purpose of shackles, hooks, eyebolts, turnbuckles, sheaves, wedge sockets, wire rope clips, rigging beams, master links, chain falls and come-alongs.

Measure: Quizzes, Written Exams, Class Performance

PLO: 1

ILO: 1,2,3,7

GE-LO: N/A

Anticipated Year of Assessment: Fall 2016

10. Inspect each piece of hardware for defects and damage. Identify various common knots, bends, hitches and splices used in rigging. Be able to tie certain common knots and hitches.

Measure: Quizzes, Written Exams, Class Performance

PLO: 1

ILO: 1,2,3,7

GE-LO: N/A

Anticipated Year of Assessment: Fall 2016

PROGRAM LEARNING OUTCOMES:

1. Demonstrate journey level skills, including those skills necessary to build all concrete infrastructures that comprise the California transportation system.

2. Locate on the blueprints and in the specifications, the information needed to construct various types of structures and assemble its various components.

3. Perform horizontal layout and vertical layout of wood framed wall components. Install interior and exterior trims and moldings. Construct various types of roofs and stairs.

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Inactive Course: 11/28/2016

1.5 Hours

Content:

Chapter 1-Introduction to rigging (Lecture)

Student Performance Objectives (SPO): Understanding the content of the course progression

Out-of-Class Assignments: Read chapter assignments

2 Hours

Content:

Chapter 2-Wire rope (Lecture)

Student Performance Objectives (SPO): Prepare for MLP in Lab

Out-of-Class Assignments: Read chapter assignments

2 Hours

Content:

Inspecting and measuring wire rope (Lab)

Student Performance Objectives (SPO): Demonstrate ability to perform lesson

Out-of-Class Assignments: Read chapter assignments

1 Hours

Content:

Chapter 3-Chain (Lecture)

Student Performance Objectives (SPO): Understand chapter material

Out-of-Class Assignments: Read chapter assignments

1 Hours

Content:

Inspecting and evaluating chain (Lab)

Student Performance Objectives (SPO): Demonstrate ability to perform assignment

Out-of-Class Assignments: None

2 Hours

Content:

Chapter 4-Slings (Lecture)

Student Performance Objectives (SPO): Understand chapter material and understand lab assignment

Out-of-Class Assignments: None

1.5 Hours

Content:

Inspecting and evaluating slings (Lab)

Student Performance Objectives (SPO): Demonstrate the ability to perform the lesson with the tolerances set forth in the grading rubrics

Out-of-Class Assignments: None

3 Hours

Content:

Chapter 5-Hardware (Lecture)

Student Performance Objectives (SPO): Understand the terminology and process of the chapter and review the MLP for the project

Out-of-Class Assignments: Read chapter assignments

2 Hours

Content:

Inspecting and evaluating various pieces of rigging hardware (Lab)

Student Performance Objectives (SPO): Demonstrate the ability to perform the lesson with the tolerances set forth in the grading rubrics.

Out-of-Class Assignments: None

1 Hours

Content:

Chapter 6-Fiber rope (Lecture)

Student Performance Objectives (SPO): Understand the terminology and processes of the chapter and review the MLP for the project

Out-of-Class Assignments: None

3 Hours

Content:

Tying knots and splicing ropes (Lab)

Student Performance Objectives (SPO): Demonstrate the ability to tie and splice ropes used for rigging. Determining which knots and splices are appropriate for various rigging processes

Out-of-Class Assignments: None

2 Hours

Content:

Chapter 7-Sling selection criteria (Lecture)

Student Performance Objectives (SPO): Understand the specifications required to identify the correct slings for a variety of lifts on the construction site

Out-of-Class Assignments: None

1.5 Hours

Content:

Figuring loads and finding the center of gravity (Lab)

Student Performance Objectives (SPO): Demonstrate the ability to apply the math formulas necessary to calculate loads and center of gravity of loads

Out-of-Class Assignments: None

1.5 Hours

Content:

Chapter 8-Cranes

Student Performance Objectives (SPO): (Lecture) Review the types of cranes used for the construction industry

Out-of-Class Assignments: None

2 Hours

Content:

Chapter 9-Voice and hand signals (Lecture)

Student Performance Objectives (SPO): Understand the correct hand and voice signals used when transferring loads on site

Out-of-Class Assignments: None

4 Hours

Content:

Making a 3 point hoist and 4 point hoist of the rigging prop, using hand signals (Lab)

Student Performance Objectives (SPO): Demonstrate the ability to perform the lesson with the tolerances set forth in the grading rubrics.

Out-of-Class Assignments: None

3 Hours

Content:

Making a 1 point rollover hoist of the rigging prop (Lab)

Student Performance Objectives (SPO): Demonstrate the ability to perform the lesson with the tolerances set forth in the grading rubrics.

Out-of-class-assignments: None

2 Hours Final

METHODS OF INSTRUCTION:

Lectures, demonstrations, multimedia presentations, discussions, and hands-on lab activities.

METHODS OF EVALUATION:

Category 1 - The types of writing assignments required:

Percent range of total grade: 20 % to 30 %

Written Homework

Reading Reports

Other: MLP shop based curriculum performance based

Course is primarily computational

Course primarily involves skill demonstration or problem solving

Category 2 - The problem-solving assignments required:

Percent range of total grade: 30 % to 40 %

Homework Problems

Quizzes

Exams

Category 3 - The types of skill demonstrations required:

Percent range of total grade: 40 % to 50 %

Class Performance/s

Field Work

Category 4 - The types of objective examinations used in the course:
Percent range of total grade: 5 % to 10 %
Multiple Choice
True/False

REPRESENTATIVE TEXTBOOKS:
CITF. Rigging.
1) Construction Safety Orders, CAL OSHA current edition
2) Rigging, Carpenters International Training Fund, Las Vegas, NV. (2014)
3) Carpentry, Leonard Koel American Technical Publishers Inc., Homewood Illinois 60430-4600 (2012)
Or other appropriate college level text.
Reading level of text, Grade: 10 Verified by: Director of Training

ARTICULATION and CERTIFICATE INFORMATION
Associate Degree:
CSU GE:
IGETC:
CSU TRANSFER:
Not Transferable
UC TRANSFER:
Not Transferable

SUPPLEMENTAL DATA:
Basic Skills: N
Classification: Y
Noncredit Category: Y
Cooperative Education:
Program Status: 1 Program Applicable
Special Class Status: N
CAN:
CAN Sequence:
CSU Crosswalk Course Department:
CSU Crosswalk Course Number:
Prior to College Level: Y
Non Credit Enhanced Funding: N
Funding Agency Code: Y
In-Service: N
Occupational Course: A
Maximum Hours: 1.5
Minimum Hours: 1.5
Course Control Number: CCC000558725
Sports/Physical Education Course: N
Taxonomy of Program: 095210