GAVILAN COLLEGE
5055 Santa Teresa Blvd
Gilroy, CA 95023

Course Outline

COURSE: CSIS 182 DIVISION: 50 ALSO LISTED AS:

TERM EFFECTIVE: Fall 2021 CURRICULUM APPROVAL DATE: 12/14/2021

SHORT TITLE: OPERATING SYSTEMS

LONG TITLE: Operating Systems

Units	Number of Weeks	Type	Contact Hours/Week	Total Contact Hours
4	18	Lecture:	4	72
		Lab:	0	0
		Other:	0	0
		Total:	4	72

COURSE DESCRIPTION:

This course will survey current computer operating systems. Topics include file system management, systems requirements, network systems integration, security, and regular maintenance procedures. This course has the option of a letter grade or pass/no pass. ADVISORY: CSIS 1 or CSIS 2 or equivalent computer experience

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: D - Credit - Degree Applicable

GRADING MODES
- L - Standard Letter Grade
- P - Pass/No Pass

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:
- 02 - Lecture and/or discussion
- 05 - Hybrid
- 71 - Dist. Ed Internet Simultaneous
- 72 - Dist. Ed Internet Delayed

STUDENT LEARNING OUTCOMES:

By the end of this course, a student should:

1. Articulate what functions operating systems perform, including various input and output technologies.
2. Articulate data management including random access memory and file systems.
3. Demonstrate proficiency for installing operating systems.
4. Explain basic networking and demonstrate ability to setup simple networks.
5. Perform basic operating system maintenance and support.

COURSE OBJECTIVES:

By the end of this course, a student should:

1. Describe and demonstrate the installation of the various operating system models.
2. Describe techniques used by operating systems to manage hardware, processes, memory and networking functions.
3. Explain how users are managed.
4. Describe mass storage devices, file systems and file management techniques.
5. Summarize security in operating systems design and use.
6. Describe virtual machines and explain their use.
7. Demonstrate real life applications of operating systems.
8. Explain the functions of modern operating systems.
9. Analyze the tradeoffs inherent in operating system design.
10. Describe the functions of a contemporary operating system with respect to convenience, efficiency and the ability to evolve.
11. Discuss networked, client-server and distributed operating systems and how they differ from single-user operating systems.
12. Identify potential threats to operating systems and the security features designed to guard against them.

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

Curriculum Approval Date: 12/14/2021

4 Hours

Lecture: What an Operating Systems Is; Types of Operating Systems; History of Operating Systems; Single-Tasking versus Multitasking; Single-User versus Multi-User Operating Systems; Current Operating Systems

4 Hours

Lecture: Computer Hardware; Popular PC Processors; System Architecture Popular; PC Operating Systems

4 Hours

Lecture: File Systems

4 Hours

Lecture: Preparing for Operating System Installation and Installation of Windows Operating Systems

4 Hours

Lecture: Operating System Installation

4 Hours

Lecture: Upgrading your Operating System

8 Hours

Lecture: Input/Output Devices; Device Drivers; Printer Technologies

8 Hours

Lecture: Network Communications

8 Hours

Lecture: Networking Basics and Resource Sharing

8 Hours

Lecture: Networking Connectivity

8 Hours
Lecture: Sharing Resources Over a Network
6 Hours
Review for Final Exam
2 Hours
Written Final Exam

METHODS OF INSTRUCTION:
Lecture, computer demonstrations, projects, internet resources

OUT OF CLASS ASSIGNMENTS:
Required Outside Hours 8
Assignment Description
Out of Class Assignment: Read chapters on operating system theory. Complete chapter review questions.

Required Outside Hours 8
Assignment Description
Out of Class Assignment: Read chapter on initial installation of operating systems. Complete chapter review questions. Study for quiz.

Required Outside Hours 8
Assignment Description
Out of Class Assignment: Read chapter on file systems. Complete chapter review questions. Study for midterm.

Required Outside Hours 16
Assignment Description
Out of Class Assignment: Read chapters on preparing for operating system installation and on operating system installation. Complete provided scenario worksheet.

Required Outside Hours 8
Assignment Description
Out of Class Assignment: Read chapter on upgrading operating systems to newer versions. Complete provided scenario worksheet. Study for quiz.

Required Outside Hours 16
Assignment Description
Out of Class Assignment: Read chapters on operating systems relation to output, input, and storage devices. Complete troubleshooting exercises.

Required Outside Hours 16
Assignment Description
Out of Class Assignment: Read chapter on operating systems interface with communications devices. Complete troubleshooting exercises. Study for quiz.

Required Outside Hours 16
Assignment Description
Out of Class Assignment: Read chapter on resource sharing over a network. Complete provided scenario worksheet.

Required Outside Hours 16

Assignment Description

Out of Class Assignment: Read chapter on operating systems connectivity with networks. Complete provided scenario worksheet. Study for quiz.

Required Outside Hours 16

Assignment Description

Out of Class Assignment: Read chapter on standard operating and maintenance procedures. Complete troubleshooting exercises. Study for final.

Required Outside Hours 16

Assignment Description

Review textbook readings and all information covered. Study for final exam.

METHODS OF EVALUATION:

Writing assignments

Evaluation Percent 10

Evaluation Description

Percent range of total grade: 10% to 20%

Written Homework, End of Chapter Review Questions

Problem-solving assignments

Evaluation Percent 40

Evaluation Description

Percent range of total grade: 30% to 50%

Homework Problems/Scenarios, Troubleshooting Situations, Quizzes

Skill demonstrations

Evaluation Percent 30

Evaluation Description

Percent range of total grade: 20% to 40%

Performance Exams

Objective examinations

Evaluation Percent 20

Evaluation Description

Percent range of total grade: 20% to 30%

Multiple Choice,

True/False,

Matching Items,

Completion

REPRESENTATIVE TEXTBOOKS:

CompTIA A+ Guide to Managing and Maintaining Your PC, or other appropriate college level text, Jean Andrews, Cengage Learning, 2019.

ISBN:

12+ Grade Verified by: MS Word

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:
CSU GE:
IGETC:
CSU TRANSFER:
Transferable CSU, effective 200630
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: C
Maximum Hours:
Minimum Hours:
Course Control Number: CCC000329635
Sports/Physical Education Course: N
Taxonomy of Program: 070800