Rowan College at BURLINGTON COUNTY

Course Syllabus

Division of Science and Mathematics			
Department	Computer Information Systems		
Faculty Member	Jonathan O. David		
Course Title	Introduction to Operating Systems		
Course Number	CIS 138-100	**Credits**	4
Prerequisites	CIS 101 or permission		
Co-requisite			
# of Lecture Hours	3	**# of Lab Hours**	2
Semester	Spring 2023	**Location**	
Course Start Date	1/20/2023	**Course End Date**	5/12/2023
Meeting Information			

Coordinator:	Aloysius Nagbe		
Coordinator Email	anagbe@rcbc.edu	Phone	856-222-9311 ext.2026

Faculty Contact Information

Email: anagbe@rcbc.edu Phone:856-222-9311 ext. 2026 Web Site: Office: Technology Center Room 211B	**Office Hours:** Monday: by Appointment Tuesday: 11:00 AM – 1:30 PM Wednesday By Appointment Thursday 11:00 AM – 1:30 PM Friday: Available by appointment
Alternate Contact: Associate Dean: Dr Elizabeth Price	Email: eprice@rcbc.edu

Campus Resources

Transfer Center	Evans Hall, Room 172 Monday - Friday: 8:30 am - 5 pm transfer@rcbc.edu (856) 222-9311, ext. 2737
Career Services Center	Student Success Center Monday - Friday: 9 am - 5 pm (856) 222-9311, ext. 2056 CareerServices@rcbc.edu
Tutoring Center	Student Success Center, Room 209 (856) 222-9311, ext. 2096 Monday: 9:30 am - 4 pm Tuesday: 9:30 am - 4 pm Wednesday: 9:30 am - 4 pm Thursday: 9:30 am - 4 pm Friday: Closed

	Saturday: 9:30 am - 1:30 pm Sunday: Closed

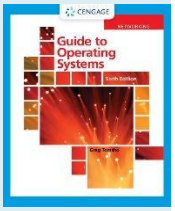
Section 2

Course Description

This course introduces students to the basics of modern operating systems. Students learn concepts, commands and operations, in popular Operating systems, such as Microsoft Windows and Linux operating systems. It emphasizes skills in the following areas: operations and commands, accessing and installing application software, managing files and folders, controlling and configuring printers and other hardware, controlling and configuring the user environment, security configuration, troubleshooting and disaster recovery

Required Text and Other Materials

NETWORKING GUIDE TO OPERATING SYSTEMS, 6th Edition Authors: Michael Palmer, Michael Waters ISBN-13: 9780357433836



Flash Drive: External Hard disk **required** for assignments and exercises. Preferable USB 3.0 Hard Drive
Remote Access: Computer with Internet access, Speaker and a Microphone

Lab Setup Guide:
VMware Workstation player software
Oracle Virtualbox
VMware vSphere
MS Hyper-V in Windows 10
Window 10 Enterprise or Education Edition is recommended but other versions are acceptable
Fedora Linux 30 or higher version
MacOS Mojave

Additional Items:
Windows 10 installation media (DVD or .iso file) – Using an evaluation copy is acceptable. You can download evaluation copies of Windows from www.microsoft.com/en-us/evalcenter/
Windows Server 2019 installation media (DVD or .iso file) – Using an evaluation copy is acceptable
Linux Fedora 30 or higher installation media (DVD or .iso file)

Course Learning Outcomes(CLOs)

Upon completion of this course, students will be able to:

1. Demonstrate competency in the use of Windows OS and familiarity with Linux and Mac Operating Systems.
2. Use Windows and Linux command line shells, as well as the graphical user interface to interact with the operating systems, individually and as a team.
3. Perform and configure basic operating systems administration and maintenance tasks.
4. Implementing industrial standards when configuring basic security features of Windows, Linux and Mac operating systems.

Course Objectives

Upon completion of this course, students will be able to: · Demonstrate competency in the use of Windows OS and familiarity with Linux OS systems. · Use the Windows and Linux command line commands, as well as the graphical user interface to interact with the computer.	· Perform basic operating systems administration and maintenance tasks. · Configure/utilize basic security features of Windows operating system

General Learning Outcomes(GLOs)

A. Written and Oral Communication: Communication
   1. Students will logically and persuasively support their points of view or findings.

B. Quantitative Knowledge and Skills: Mathematics
   2. Students will analyze data to solve problems utilizing appropriate mathematical concepts.

C. Scientific Knowledge and Reasoning: Science
   1. Students will explain the impact of scientific theories, discoveries, or technological changes on society.

D. Society and Human Behavior: Social Science
   1. Students will demonstrate a general knowledge of political, social and economic concepts and systems and their effects on society.

E. Technological Competency or Information Literacy: Technology
   1. Students will use critical thinking skills for computer-based access, analysis, and presentation of information.
   2. Students will demonstrate the skills required to find, evaluate, and apply information to solve a problem.

F. Ethical Reasoning and Action
   1. Students will take a position on an ethical issue or a situation and defend it

Mapping CLOs to GLOs

- CLOs# 1 &2 mapped to GLO# A1, E1, & E2
- CLOS 2, 3, & 4 to GLO#C1, E1, E2, & F1

Course Contents

● OS Command Line Commands ● Operating System Hardware ● File Systems ● Installing and Upgrading ● Using and Configuring Storage	● Communication Methods ● Network Connectivity ● Resources Sharing over the Network ● Standard Operating

• Modems	• System Maintenance

SECTION 2:

Course and Classroom Policies:

Expectations: Students are expected to attend class, be prepared having read the text chapter beforehand, complete assignments, and to participate in discussions. Students are expected to complete and submit assignments on or before the due date. Students are expected to conduct themselves in a professional manner in classes and labs.

Required email: Students are assigned an email account by the college (*firstname_lastname@mymail.rcbc.edu*). Students are expected to use this account to correspond with the instructor and to include CIS ###(### represent the course number) in the subject line.

Attendance:

- Students are expected to attend all classes.
- Coming to class late and/or leaving class early without prior permission from the instructor will be counted as an absence.
- All materials will be collaborated as in class exercises and discussions. Attending all classes is the key to success in this class, since all projects/exams will be based on those materials that are covered in the class.

Computer Usages

- Students are not allowed to use computers for any other purposes except for lecture notes during lectures and for practical.
- Student will be asked to leave the room if he or she persists to use a computer.
- Printing is not permitted during lectures.

Late Work Policy

- All course work must be completed by the deadline, if it is not submitted by the deadline the following will occur:
    - A total of 10 points will be deducted for each week until the 5th week after the 5th week a student will receive a grade of 0.
    - All late work must be submitted via Blackboard no work should be e-mailed to the instructor.

Requesting Work

- If a student has prior engagements, that student can request to have work completed and submitted so the work can be submitted on time

Criteria for Grade Determination:

15 Week Assessments:

- There are four exams Test Unit I, Test Unit II, Test Unit III and the Final Exam
- There will be a 13 Discussion Boards one per week
- Most projects will be started in class through in-class exercises. Submitting assignments after the due date will result in loss of grade points.
- No quiz or discussion board will be given on the week of the Midterm and Finals

Tests/Exam

"Makeup" tests/exams and assignments will be accepted at the instructor's discretion and can result in loss of grade points. Make up tests will allowed only in extraordinary situations. I have a problem with my car is not an acceptable excuse.

Project

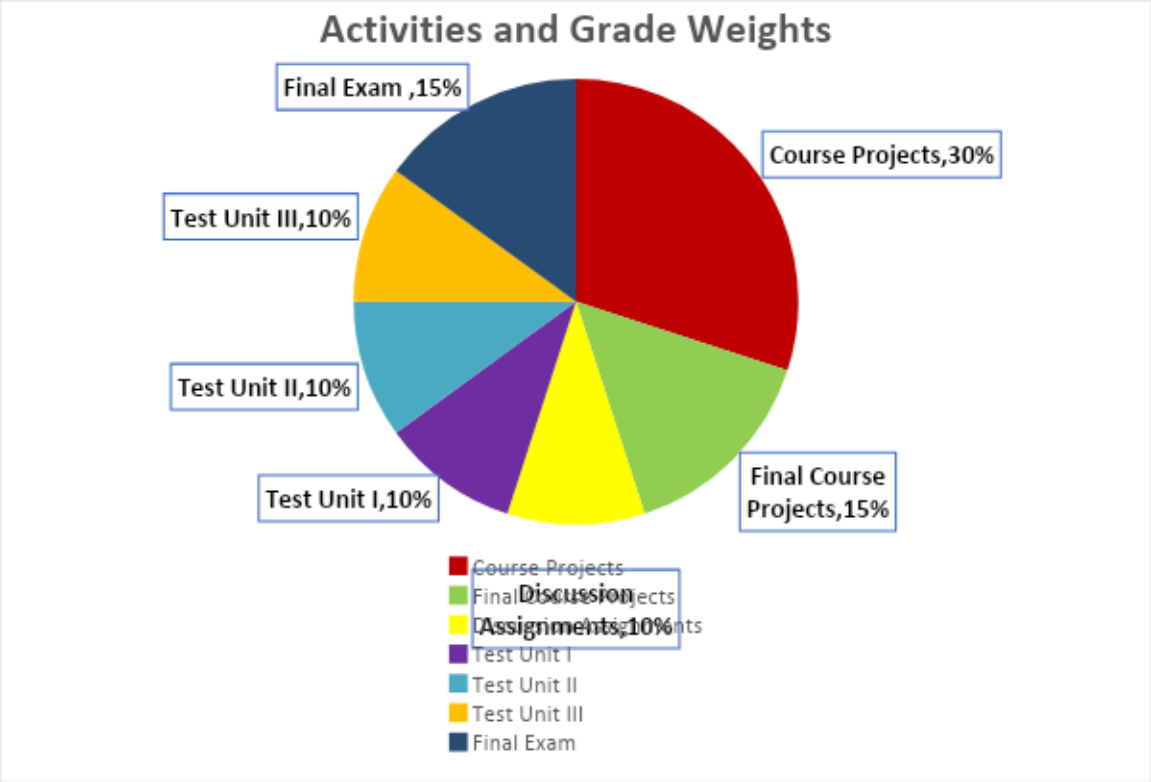
The course project will demonstrate the student's ability to configure, troubleshoot, design, and test a computer network. It will also demonstrate the written, documentation, and research skills. Overall the course project will show relevance to real world scenarios and also prepare them for specific IT entry level jobs. There will be a rubric used for grading purposes.

Class Participation

Class participation can be a combination of attendance, seeking help from the instructor or tutor, and classroom activities.

Weighting of Assessments: A student's final grade in the course will be determined using the following percentage:

Activity	Percentage pages
Course Projects	**30%**
Final Course Project	**15%**
Test Unit I	**10%**
Test Unit II	**10%**
Test Unit III	**10%**
Final Exam	**15%**
Discussions/Attendance	**10 %**
Total	**100%**


Activities and Grade Weights
Final Exam ,15%
Course Projects,30%
Test Unit III,10%
Test Unit II,10%
Final Course Projects,15%
Test Unit I,10%
Discussion Assignments,10%
Course Projects
Test Unit I
Test Unit II
Test Unit III
Final Exam

Grade Determination:

Letter Grade	Percentage Points Range
A	**90-100%**
B+	**85-89.99%**
B	**80-84.99%**
C+	**75-79.99%**
C	**70-74.99%**
D	**60-69.99%**
F	**< 60%**

Tentative Schedule

15-Week Course Outline

Schedule Session	CHAPTER	Labs, Projects and Weekly Assignments	Assessments
Week 1	CHAPTER 1: OPERATING SYSTEMS FUNDAMENTALS	1. Week 1 Discussion Assignment 2. In News RSS Feed 3. Hands-ON Projects-> pages 41 to 51	Lab Orientation
Week 2	CHAPTER 2: MODERN CLIENT AND SERVER OPERATING SYSTEMS	1. Week 2 Discussion Assignment 2. Hands-ON Projects-> pages 96 to 108	
Week 3	CHAPTER 3: THE CENTRAL PROCESSING UNIT (CPU)	1. Week 3 Discussion Assignment 2. Hands-ON Projects-> pages 130 to 137 3. Review for Test Unit I (cover Chapters 1 to 3)	
Week 4	OSs COMMAND-LINE COMMANDS	Hands-ON Projects-> Windows/Linux /Mac OS X commands activities: Appendix A	TEST UNIT I
Week 5	OSs COMMAND- LINE COMMANDS	1. Week 5 Discussion Assignment 2. Hands-ON Projects-> Windows/Linux /Mac OS X commands activities: Appendix A	

Week 6	CHAPTER 4: FILE SYSTEMS	1. Week 6 Discussion Assignment 2. Hands-ON Projects-> pages 182 to 191	
Week 7	CHAPTER 5: INSTALLING OPERATING SYSTEMS	1. Week 7 Discussion Assignment 2. Hands-ON Projects-> pages 231 to 238	
Week 8	CHAPTER 6: DEVICES AND DEVICE DRIVERS	1. Hands-ON Projects-> pages 264 to 272	TEST UNIT II
Week 9	CHAPTER 7: USING AND CONFIGURING STORAGE DEVICES	1. Week 9 Discussion Assignment 2. Hands-ON Projects-> pages 304 to 313	
Week 10	CHAPTER 8: Virtualization and Cloud Computing Fundamentals	1. Week 10 Discussion Assignment 2. Hands-ON Projects-> pages 350 to 356	
Week 11	CHAPTER 9: NETWORK FUNDAMENTALS AND CONFIGURATION. CHAPTER 10: ACCOUNT AND RESOURCE MANAGEMENT	1. Week 11 Discussion Assignment 2. Hands-ON Projects-> pages 419 to 931 3. Hands-ON Projects-> pages 468 to 477	
Week 12	CHAPTER 11: SECURING AND MAINTAINING AN Operating System	1. Week 12 Discussion Assignment 2. Hands-ON Projects-> pages 520 - 525	
Week 13		Final Course Project presentation	TEST UNIT III Final Course project
Week 14	REVIEW OPEN MATERIAL	Final Course Project presentation	presentation
WEEK 15	FINAL EXAM		FINAL EXAM

Final Course Project: The final project is determined by the faculty. See example below for the Scope and Requirements topics:

a. Operating Systems Fundamentals
b. Modern Client and Server Operating Systems
c. The Central Processing Unit (CPU)
d. File Systems.
e. Installing Operating Systems
f. Devices and Device Drivers
g. Using and Configuring Storage Devices
h. Virtualization and Cloud Computing Fundamentals
i. Network Fundamentals and Configuration
j. Accounts and Resource Management
k. Securing and Maintaining an Operating
l. Operating System Command-Line Commands

***You may choose any of the Case Study projects at the end of the chapters to assign to the students for their final course project.**

(Online) 15-Week Course Outline- Spring Schedule

10 Week Assessments:

- There are four exams Test Unit I, Test Unit II, Test Unit III and the Final Exam
- There will be a8 Discussion Boards one per week
- Most projects will be started in class through in-class exercises. Submitting assignments after the due date will result in loss of grade points.
- No quiz or discussion board will be given on the week of the Midterm and Finals

Please realize that if you are taking this course during 10, or 15 weeks semester, the workload is still the same. A shorter semester does not mean less work, you still need to earn 3 credits. Therefore, you still need to do approximately 135 hours' worth of work regardless of the length of the semester.

****** Subject to change without notice.**

SECTION 3:

College Policies

In order for students to know their rights and responsibilities, all students are expected to review and adhere to all regulations and policies as listed in the College Catalog and Handbook. These documents can be accessed at http://www.rcbc.edu/publications. Important policies and regulations include, but are not limited, to the following:

- Grading Standards
  - Withdraw (W) and Incomplete Grade (I)
  - Withdrawal date for this semester
- Student Code of Conduct
- Use of Communication and Information Technology
- College Attendance Policy
  - Students are required to attend all class, clinical, laboratory, and studio sessions for the full duration of each such instructional session. Faculty are required to record student attendance, and grade penalties for absence will be imposed when a student exceeds a ten percent non excused absence rate, not to exceed 10% of the final grade.
  - For all on-campus courses, including hybrid and hybrid-mixed-mode on-campus meeting days, excused absences include: suspected COVID-19 related illness (i.e., exhibiting symptoms), tested positive for COVID-19, or demonstrated need to quarantine. For all VLC courses and hybrid and hybrid-mixed-mode virtual meeting days, excused absences

include: suspected COVID-19 related illness (i.e., exhibiting symptoms that prevent the student from participating online).
  - Students are responsible for informing their instructor as soon as the situation is known and following all other guidelines as outlined by the college. Failure to do so may lead to the absence not being excused. Students are also responsible for communicating with instructors to make reasonable arrangements for the completion of course requirements not completed due to absence.

- Academic Dishonesty/Plagiarism
  - Specifically, the term "plagiarism" includes, but is not limited to, the use by paraphrase direct quotation, of the published or unpublished work or sections of a work of another person without full and clear acknowledgement, whether intentional or not. This includes any material copied directly or paraphrased from the internet. Plagiarism also constitutes the unacknowledged use of materials prepared by another person or agency engaged in the selling of a term papers or other academic materials, including material taken from or ordered through the Internet. For more information on academic dishonesty/plagiarism see Board Policy #903-C.

Office of Student Support and Disability Services
In accordance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) and the ADA Amendments Act, the Student Support Services Office's mission is to ensure all students with disabilities are provided access to educational and extracurricular activities while on college premises through support in the form of reasonable accommodations such as adaptive technology, counseling, note-taking assistance, and American Sign Language interpreters. Students who have disabilities must self-identify, provide documentation of disability(ies), attend an intake appointment, and sign a Disability Release Form (rcbc.edu/studentsupport) prior to the start of the semester to ensure reasonable accommodations. For more information please contact the Office of Student Support at ext. 1208. For additional information on this policy please refer to the current catalog.

Educational Technology Statement
Rowan College at Burlington County (RCBC) advocates the use of technology to enhance instruction. Students should assume that classroom and online technology will be used throughout their coursework at RCBC, as it will most certainly be used in their future education and careers. The College provides on-campus facilities for the convenience of the RCBC community. Various college departments, including the Office of Information Technology and the Office of Distance Education, provide technology training and assistance to faculty and students.

Student Success Services
RCBC offers a variety of free services for its students including those listed below. Descriptions of these services, as well as many others, can be found in the College Catalog and Handbook and on the RCBC website at https://www.rcbc.edu/students.

- **Academic Advising (**https://www.rcbc.edu/advising**)**
- **Struggling Personally or Academically** (https://rcbc.edu/need-help-now)

- **Career Services (**https://www.rcbc.edu/careers**)**
- **EOF (**https://www.rcbc.edu/eof**)**
- **Financial Aid (**https://www.rcbc.edu/financial-aid**)**
- **International Students Office (**https://www.rcbc.edu/internationall**)**
- **ESL Advising & Support (**https://rcbc.edu/esl)
- **Library (**https://www.rcbc.edu/library**)**
- **Office of Veteran Services (**https://www.rcbc.edu/vets**)**
- **RCBC Foundation -Scholarship information (**https://www.rcbc.edu/foundation**)**
- **RCBC bookstore (**https://www.rcbc.edu/bookstore**)**
- **Rowan University Partnership (**https://www.rcbc.edu/rowan**)**
- **Student Support Counseling (**https://www.rcbc.edu/counseling)
- **Tutoring (**https://www.rcbc.edu/tutoring**)**
- **Test Center (**https://www.rcbc.edu/test-center)
- **Transfer Services (**https://www.rcbc.edu/transfer**)**

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