UNIVERSITY of HAWAIʻI®
WINDWARD
COMMUNITY COLLEGE

ICS 184 Introduction to Networking

Fall 2026

3 Credits | CRN 62258 | Term 202710

Course Duration: August 24, 2026 – December 18, 2026 | ONLINE

This syllabus and/or our Course Schedule is subject to change at any time. I will notify you of any changes via Lamakū Announcements. Mahalo!

About Windward Community College

Mission Statement

ʻO keia ka wā kūpono e hoʻonui ai ka ʻike me ka hoʻomaopopo i kō Hawaiʻi mau hoʻoilina waiwai. Aia nō hoʻi ma ke Kulanui Kaiāulu o ke Koʻolau nā papahana hou o nā ʻike ʻake akamai a me nā hana noʻeau. Me ke kuleana koʻikoʻi e hoʻohiki ke Kulanui e kākoʻo a e hoʻokumu i ala e hiki kē kōkua i ka hoʻonui ʻike a nā kānaka maoli. Na mākou nō e hoʻolako, kākoʻo a paipai i nā Koʻolau a kō Oʻahu aʻe me nā hana noʻeau ākea, ka hoʻonaʻauao ʻoihana a me ka hoʻonui ʻike ma ke kaiāulu— hōʻaʻano a e hoʻoulu i nā haumāna i ka poʻokela.

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawaiʻi and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide the Koʻolau region of Oʻahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

ʻĀina

Windward Community College is located in the ahupuaʻa of Kāneʻohe and Heʻeʻia in the moku of Koʻolaupoko on the island of Oʻahu. Both ahupuaʻa are directly connected to the moʻo ʻōlelo of Pāpa and Wākea, who are seen as the ancestors of the Hawaiian nation. The campus sits beneath the puʻu of Keahiakahoe, which is also connected to many moʻo ʻōlelo of this ʻāina. Because wind names and rain names are associated with specific ʻāina, the rain name of Kāneʻohe is known as the ʻĀpuakea and the rain name of Heʻeʻia is the Ulumano.

Instructor Information

INSTRUCTOR: *Randal Pacheco*
OFFICE: By Appointment
OFFICE HOURS: TBA
TELEPHONE: 808-225-2823
EMAIL: randalp@hawaii.edu

How to Contact Your Instructor

Office Hours: Since this class is online, any "office hours" will need to be coordinated ahead of time. I check email frequently during the day -). On all correspondence, please add the phrase "ICS 184 Fall 2026" to the subject line (this helps me sort and answer your email quicker). I endeavor to answer all emails within 2-4 hours during the regular work week (most times faster).

Asking Course Questions

Please use the course Q&A in Lamakū Discussions for all general course questions about content, activities, due dates, and how work will be graded. I will check Q&A daily during the work week and provide follow-up information there.

Email specific grading questions and/or personal matters, per FERPA, to keep your information protected. Please use Lamakū Email instead of UH Gmail or other email when possible.

Alternate Contact Information

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

- Location: Alakaʻi 121
- Phone: (808) 235-7422

Contingency Plan

If there is an outage, weather situation, or family emergency on my end, I will do my best to find a way to communicate an update as soon as possible about my return to the course via Lamakū Announcements and email. Mahalo in advance for your understanding, and I hope you will do the same if such situations affect your ability to participate.

Key Dates

- Last Day to Withdraw without a "W": September 15, 2026
- Last Day to Withdraw with a "W": November 2, 2026
- Last Day of Instruction: December 11, 2026
- Finals Week: December 14 – December 18, 2026
- Holidays: Refer to the official UH System Academic Calendar for Fall 2026 holiday listing

Course Format & Structure

This course is offered in a 16-week, fully online, asynchronous format for Fall 2026, running August 24, 2026 through December 18, 2026. Please note that this is not a self-paced course; our course schedule is provided below and assignments follow weekly due dates.

- Content release: Modules are released weekly according to the Course Schedule below.
- Synchronous or asynchronous: This course is primarily asynchronous. Students interact with course content and the instructor through Lamakū, MindTap, email, and Q&A discussions.
- Course Benefits: This course uses a required commercial textbook and Cengage MindTap platform (not OER/TXT0).

Class Meeting: Once a week there will be optional office hours on Mondays from 6:00 PM to 6:30 PM via Google Meet. These office hours are available for students who need extra help.

Videos: Videos will be used as an additional educational resource throughout the course. Students are strongly encouraged to watch all assigned videos, as they may cover material found on exams.

Regular Substantive Interaction (RSI)

Online courses at Windward Community College follow the college's RSI Definition for ensuring quality instruction. You can expect me to communicate with you frequently and in a timely fashion about our coursework in the following ways during our 16-week course:

- Announcements: Posted weekly (typically at the start of each week) with reminders of due dates and upcoming content.

- Assignments: Graded and returned within two weeks of submission (most times less than one week). Feedback provided through Lamakū Grades and MindTap.
- Q&A: Checked and responded to daily during the regular work week.
- Quizzes and Exams: Auto-graded through MindTap; results and correct answers released immediately upon submission unless otherwise noted.
- Student Check-Ins: Instructor monitors Lamakū login activity and reaches out individually to students who fall behind on weekly engagement.
- Office Hours: Weekly optional Google Meet sessions on Mondays, 6:00–6:30 PM, for students who need extra help.

All course activity due dates are listed in Lamakū on the Calendar. Please check your UH email often and set your Lamakū Notifications to receive course notices, such as grading updates, announcements, and activity reminders.

Participation Verification

Campuses are required by federal regulations to verify the participation of students in their classes. In accordance with Executive Policy 7.209, all students in the University of Hawai‘i system are required to establish "participation" to ensure that they are not dropped from their class(es). Effective Fall 2021, students who fail to participate by the late registration period for a class will be administratively dropped from that class. Students may also be dropped from dependent prerequisite and/or corequisite classes if both courses do not establish participation.

Course Information

Catalog Description

Course Title: Introduction to Networking

ICS 184-0: Introduction to Networking | CRN 62258 | [FA26] | Term 202710

- College: WIN-Instructional (I9)
- Division: Liberal Arts (LBRT)
- Department: Mathematics & Business (MABU)
- Credit Hours: 3
- Lecture Hours: 45
- Level: WIN-Undergraduate (U9)
- Grading Modes: Audit (A), Credit/No Credit (C), Standard Letter A-F (L)

- Schedule Types: Hybrid-Technology Intensive (HTI), Lecture (LEC)
- Status: Active
- Course Duration: 08/24/2026 – 12/18/2026 (Fall 2026, Term 202710)

Course Description: This course provides the student with the knowledge and skills to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure, as well as to describe networking technologies, basic design principles, and adhere to wiring standards and use testing tools. The course also introduces the student to network security concepts, including how data is transported over networks, structured cabling and networking elements, network cabling, industrial and enterprise networking, and basic cryptography.

This course is part of the Information Security Certificate of Completion pathway at Windward Community College.

Welcome to ICS 184 – Introduction to Networking. Knowing how to install, configure, and troubleshoot a computer network is a highly marketable and exciting skill. This course first introduces the fundamental building blocks that form a modern network, such as protocols, media, topologies, and hardware. It then provides in-depth coverage of the most important concepts in contemporary networking, such as TCP/IP, Ethernet, wireless transmission, virtual networks, security, and troubleshooting. This course utilizes online labs through MindTap.

Student Learning Outcomes

Students can expect to attain the following outcomes as a result of taking this course:

1. Manage networking projects as part of a team.
2. Discuss information security technologies such as cryptography, digital signatures, key management, and authentication as they relate to computer networks.
3. Describe the fundamental concepts, technologies, components, terminology, protocols, standards organizations, and business, legal, ethical, and security issues related to communications and data networks.
4. Describe a basic secure network architecture in accordance with current best practices given a specific need and set of hosts/clients.
5. Use current network tools to monitor, map, and troubleshoot a network and to track and identify packets.

Upon successful completion of this course and the exercises within, students will be prepared to select network designs, hardware, and software for a given environment, build a network from scratch, and maintain, upgrade, troubleshoot, and manage an existing network. This course also prepares students for CompTIA's Network+ certification exam.

Course Materials & Technology

Required

- Textbook: CompTIA Network+ Guide to Networks, 10th Edition, by Jill West and Jean Andrews (Cengage). Available through MindTap.
- Regular access to a computer with internet (desktop or laptop).
- Windward offers free laptop and WiFi hotspot check-out to students (first-come, first-served), as well as software and other tech discounts; see Ka Piko Student Tech Support for information.
- UH Online provides an online learning Readiness Activity and an Orientation to Online Learning that WCC students may take to see if online learning is a good fit.
- MS Office (or equivalent) 2013 or higher for papers, spreadsheets, and other assignments. Free Office 365 is available to WCC students — contact the instructor or WCC bookstore for details.
- Regular internet access to browser websites for research.
- Windward Community College also provides computers for student use in the Library, computer labs, and specific areas in Hale Pālanakila. Some labs may require downloading specific software for coursework.

Recommended

- D2L Brightspace Pulse App (free download from app stores) for mobile Lamakū notifications.

Lamakū Learning Management System (https://lamaku.hawaii.edu/d2l/home)

- Lamakū courses will appear 5 days before the first day of the academic term and will become inactive (no longer accessible) 3 weeks after the end of the term. Be sure to save any coursework you may need from Lamakū during the term.
- Lamakū automatically logs you out if it does not detect activity for three hours. A warning message will appear notifying you of the lack of activity.
- If you find any course content that needs remediation and/or updating for accessibility, please share it with me and I will immediately work to make the content accessible.
- Contact UH ITS for 24/7 Lamakū assistance.
- Handouts: Various handouts may be provided during the semester. These will be emailed and posted to Lamakū and may cover material found on exams.

Other Technology

Review the privacy/security policies before using the technologies we will be using in this class. Contact me if you would like to discuss the use of alternate options or technologies.

- Google Sheets is used to create assignment and reference worksheets (accessibility statement, privacy policy)
- Google Docs is used to create the Course Design Document and rubrics (accessibility statement, privacy policy)
- H5P is used for creating review activities (accessibility, privacy policy)
- Kahoot! is used for review activities (accessibility statement, privacy policy)
- Loom is used for screen recording (privacy policy)
- Nearpod is used for interactive presentations (accessibility statement, privacy policy)
- Padlet is used for some discussion activities (Padlet accessibility statement, Padlet privacy policy)
- PearDeck is used for interactive presentations (privacy policy)
- Quizlet is used for interaction (privacy policy)
- YouTube is used for delivering some course content (accessibility statement, privacy policy)
- Zoom is used for optional office hours and virtual meetings (accessibility statement, privacy policy)
- Cengage MindTap is our digital textbook and assignment platform (linked directly from Lamakū)

Quick Links

Resource	**URL**
Windward Community College	http://www.wcc.hawaii.edu or http://windward.hawaii.edu
WCC Account Activation (local systems)	https://accounts.wcc.hawaii.edu/secure/index.php
Lamakū	https://lamaku.hawaii.edu
Library Learning Commons	http://library.wcc.hawaii.edu
WCC Campus Map	https://windward.hawaii.edu/About_WCC/Campus_Map.php
WCC Calendar of Events	https://windward.hawaii.edu/Calendar/

Course Activities & Grading Policy

Grading in this course is points-based (no plus/minus grades, no rounding) because the course is designed using MindTap Cengage Online. Grading breakdown is subject to change based on course needs; any changes will be announced in advance.

Grading Scale

Course Activity	Points/Percentage of Final Grade
MindTap Learning Exercises & Simulations	40%
Homework Assignments	20%
Quizzes	15%
Papers (current event article + "how-to" article)	15%
Final (MindTap course completion)	10%

Point-to-Letter Grade Conversion:

Points	Letter Grade
2768 – 3460	A
2076 – 2767	B
1384 – 2075	C
692 – 1383	D
Below 692	F

Assessment, Tasks, and Grading

- MindTap Learning Exercises: Simulations completed within MindTap; a score of 6240 points (subject to change) earns full credit for MindTap assignments.
- Homework Assignments: Simulations in MindTap, or instructions with a file to submit/ questions to answer for other topics.
- Quizzes: Cover book material; completed online electronically within the course.
- Papers: One paper on a current event IT security topic (student's choice of article) and one short "how-to" article written for use by others. Exact requirements released during class.
- Projects/Labs: Weekly announcements will indicate where students should be in the Cengage MindTap online course. Projects may focus on the media view of IT security and information warfare, or a group project examining a controversial issue in the IT world requiring independent research.

- Final: Completion of the full online MindTap course, since the course is structured around online completion rather than a single proctored exam.

Late Policy: If a student will miss a deadline due to work, deployment, medical, or personal problems, they MUST notify the instructor ahead of time. Missed deliverables will be given a grade of zero unless prior arrangements are made. This should not be a common occurrence.

Incompletes: No Incompletes or N grades will be given except in the most extreme emergencies, at the instructor's discretion (e.g., death in the family).

Returns: Graded assignments are returned within two weeks of receipt (often less than one week). Exams may take up to two weeks to grade and return.

Access: Students should log into Lamakū at least once a week and complete required weekly assignments. It is possible to get ahead, but students should still endeavor to log in weekly. Students bordering in-between grades will be given the higher grade if they have shown regular presence on Lamakū.

Course Schedule

Students may check the Windward Student Notifications page on the website for canceled classes and/or school closures. Assignments are due Sunday nights at 11:55 pm unless otherwise noted. A detailed schedule of assignments and due dates will also be posted during the first week of class on Lamakū.

Week	Date	Module / Topic	Due Dates
1	8/24/26	Module 1: Introduction to Networks & Networking Careers	Participation Verification activity due by end of week
2	8/31/26	Module 2: Network Models & Topologies	NOTE: 9/1/26 is the last day to register, audit, change grading mode/ variable credits, or drop for 100% refund
3	9/7/26 (Labor Day holiday)	Module 3: Physical Networking & Cabling	
4	9/14/26	Module 4: Addressing on Networks (IP, MAC)	NOTE: 9/15/26 is the last day to drop with "W," drop for 50% tuition refund, and submit tuition waivers
5	9/21/26	Module 5: Networking Devices	
6	9/28/26	Module 6: Network Protocols & TCP/IP	
7	10/5/26	Module 7: Wide Area Networks (WAN)	

8	10/12/26	Module 8: Wireless Networking	
9	10/19/26	Module 9: Virtualization & Cloud Networking	
10	10/26/26	Module 10: Network Security Basics (Cryptography, Authentication)	
11	11/2/26	Module 11: Network Hardening & Best Practices	NOTE: 11/2/26 is the last day to withdraw for a "W" grade, 0% tuition refund
12	11/9/26	Module 12: Network Management & Monitoring Tools	
13	11/16/26	Module 13: Network Troubleshooting	
14	11/23/26 (Thanksgiving week)	Module 14: Industrial & Enterprise Networking	Paper 1 (current event article) due
15	11/30/26	Module 15: Emerging Networking Technologies	Paper 2 ("how-to" article) due
16	12/7/26	Module 16: Course Review & Network+ Exam Prep	
Finals	12/14/26 – 12/18/26	Final MindTap course completion	Grades available in STAR GPS on 12/23/2026

Note: Module topics above are a suggested outline based on standard CompTIA Network+ course structure. Instructor should confirm final module names/order against the current MindTap/ Cengage course map before publishing.

Academic Integrity

Windward CC Student Conduct Information

UH System Student Conduct Policy EO 7.208

In general, work submitted by a student must be the student's own, original work. The work of others should be properly acknowledged, explicitly marked and cited, through the use of quotes and/or summarized reference to the original author via the appropriate citation style indicated by your instructor.

Online Conduct

Everything done electronically on university systems or via email can be considered public record, and you are part of the larger, global, online community. As such, it is expected that all students demonstrate appropriate language, behavior, respect, and understanding that would

prevail in any campus situation. All students should do their part to ensure a pleasant and safe online environment for others, including:

- Watching for viruses, worms, bots, etc. Do not allow these items, or any other type of code that disrupts, interrupts, or interferes with other users' use of the online environment.
- Showing respect for all faculty, students, and staff regardless of age, race, gender, religion, national origin, veteran's status, disabilities, sexual orientation, etc.
- Being honest. Misrepresentation of any kind will not be tolerated, including identity theft or intentional electronic "fakery" (spoofing, relaying, etc.)
- Being polite. Ensure that any content submitted electronically is free from harmful, threatening, libelous, and abusive content, including profanity.

Submissions: The Internet is a great research tool and should be used as a study aid; but please ensure that you DO YOUR OWN WORK. Turning in plagiarized material is a serious offense. Use information found online to help you understand concepts, but when completing your work, use your own words rather than copying, citing, or attempting to paraphrase someone else's work. Be aware that all submitted items can be run through academic integrity tools that scan for and can catch plagiarism attempts.

In this class, students who commit academic dishonesty, cheating, or plagiarism will have the following consequence(s):

- Students will receive a failing grade for plagiarized assignments.
- All cases of academic dishonesty are referred to the Vice Chancellor for Student Affairs.

Consequences include (but are not limited to):

- 1st offense – a "0" for the assignment for all involved and a written warning
- 2nd offense – an "F" for the class

Students can upload papers to TurnItIn.com to check for authenticity. Copyright infringement or violation of patent, trademark, proprietary information, and/or confidentiality agreements will not be tolerated.

Artificial Intelligence (AI)

UH Executive Policy 2.220 Artificial Intelligence

The Windward CC Library AI Essentials Library Guide provides guidance and helpful resources for both instructors and students.

AI use is permitted in this course under limited, curated conditions, as follows:

Level	Policy	Expectation
🔴 **Red Light**	Full Stop	No AI permitted on MindTap simulations, quizzes, or exams. These assess individual mastery of networking concepts and configuration skills. Using AI on these constitutes academic dishonesty.
🟡 **Yellow Light**	Curated Use	You may use AI to clarify networking concepts, brainstorm paper topics, or organize your "how-to" article outline. You must include an "AI Disclosure" statement describing how the tool was used.
🟢 **Green Light**	Full Integration	Not applicable to graded assessments in this course at this time.

Your Responsibility with AI:

- Verification: You must verify the accuracy of all submitted content. Never assume AI-generated networking information is correct or current.
- Understanding: Your work must reflect your own understanding of networking concepts. Configuration and troubleshooting skills come from hands-on practice, not from having AI solve problems for you.
- Ethics & Integrity: Do not input sensitive data, proprietary network configurations, or other students' information into AI tools.

Instructors will refrain from sharing or inputting student work into online AI tools, including AI detection tools, without obtaining student consent, due to FERPA and copyright implications.

Student Kuleana

- Please review the Hawai‘i-Style Netiquette guide, which blends the values of ALOHA with approaches to how we should treat each other online.
- Complete assignments on time. Assignments should be professional and meet high standards of logic, research, content, grammar, and spelling.
- Be prepared for tests and exams by working all assignments and reading ahead.
- Communicate early and often with the instructor. Discussion of course material (not exam content) with classmates is encouraged.

- If you have problems or issues (illness, housing, family emergency, etc.) during the semester, let the instructor know as soon as possible.
- Time commitment: Expect to spend approximately 10-12 hours per week on assignments, reading, and research. Good time management is critical for success in this course.
- Windward CC has Grievance Procedures in place, but students are encouraged to work directly with the instructor first to resolve any issues. Mahalo!

Instructor Expectations and Principles

6. It is your personal responsibility as an online student to ensure that you have access to a reliable computer with an internet connection.
7. It is the burden of the student to demonstrate mastery of course material to the instructor.
8. If you are having problems, ask. Don't let confusion grow. I will assist you as needed, but you still must arrive at the correct solution before receiving credit; I will not do your thinking for you.
9. You can work with others, but you must submit your own work. Do not "work together" on a solution and then make copies for each person to turn in. If you collaborate to build understanding, separate before preparing your submission; if submissions look too similar, you may be asked to prove the work is your own.
10. Don't let other students copy your work. It is your responsibility to ensure your work is not made available to others. Academic dishonesty findings often come in pairs.
11. Any activity that diminishes the instructor's ability to analyze and rate a student's individual knowledge of course material is prohibited.
12. Complete assignments on time. Assignments should be professional and meet the highest standards regarding logic, research, content, grammar, and spelling.
13. Be prepared for tests and exams. This can be accomplished by working all assignments and reading ahead.
14. Think before putting fingers to keyboard. Analysis is key; thinking and understanding prior to attempting to solve a problem is critical.
15. Time goes by quickly and there is a lot of work to accomplish. Expect to spend roughly 10-12 hours a week on assignments, reading, or research. Unexpected things happen in life; do your best to get ahead so you can more easily manage these events. Good time management and study discipline are critical for keeping up in the class.
16. Communicate early and often with the instructor; discussion of course material (not exam content) with other students is highly encouraged.

17. If you have problems or issues (e.g., illness, housing, death in the family, etc.) during the semester, let the instructor know as soon as possible so we can work together to get you through the class.

Academic and Technical Support

Academic Support

- Windward Community College Library
- Library eResources
- Ka Piko Tutoring Services: Math Lab, Speech Lab, Writing Lab, ʻŌlelo Hawaiʻi Lab
- Online Learning at Windward Community College
- STAR Balance

Technical Support

- UH ITS Help Desk: email help@hawaii.edu or call (808) 956-8883 (or 1-800-558-2669) for Lamakū and most technology support. Available 24/7, including holidays.
- Student Tech Support: email winhelp@hawaii.edu, call (808) 235-7437, or visit Hale Laʻakea 228. Available Monday–Friday, 8:00 am–4:00 pm.
- Lamakū Help: Click the Lamakū Help link in the Lamakū homepage menu bar to submit a question and receive an answer via email.
- Information Security for Students

College Policies & Support Services

Basic Needs

Basic needs include food and housing, childcare, mental health, financial resources, and transportation. If you or someone you know is experiencing basic needs insecurity, please see the UH System Basic Needs website.

Disabilities Accommodations Statement

Windward Community College's Disability Student Services Office (WCC-DSSO) is committed to providing equal access to qualified students with disabilities. If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to participate fully in this class, contact the Disability Specialist Counselor, Roy Inouye, at (808) 235-7448, wccdsso@hawaii.edu, or Hale Kakoʻo 106.

Financial Aid

If you are receiving financial aid and are contemplating not completing the course, contact the Financial Aid Office at (808) 934-2712 or wccfao@hawaii.edu BEFORE you withdraw to discuss the impact on your financial aid eligibility.

LGBTQ+

The University of Hawai‘i system and Windward Community College are committed to building an inclusive community that supports and advocates for all students, staff, and faculty. For more information, see the University of Hawai‘i Commission on LGBTQ+ Equality. Windward Community College Commissioner: Scott Sutherland, scottjks@hawaii.edu.

Mental Health Counseling

Mental Health and Wellness at Windward Community College provides counseling services to support students' life and academic goals. Information: WCC Mental Health & Wellness.

Student Conduct Code

Windward Community College follows the University of Hawai‘i Code of Student Conduct. The disciplinary authority is exercised through the Office of the Vice Chancellor for Student Affairs.

TRiO Program

The Federal TRiO Programs are educational opportunity outreach programs designed to motivate and support students from disadvantaged backgrounds. Information: Windward CC TRiO.

Title IX – Sex Discrimination and Gender-Based Violence Resources

Windward Community College is committed to providing a learning environment free of sex discrimination and gender-based violence. To report an incident or receive information and support, contact:

- Kala‘ikū Stephenson, UH System Confidential Advocate — advocate@hawaii.edu, Hale Kāko‘o 103
- Desrae Kahale, Mental Health Counselor & Confidential Resource — (808) 235-7393, dkahale3@hawaii.edu, Hale Kāko‘o 101
- Mykie E. Menor Ozoa-Aglugub, J.D., Title IX Coordinator — (808) 235-7468, mozoa@hawaii.edu, Hale Kāko‘o 109
- Karen Cho, Deputy Title IX Coordinator — (808) 235-7404, kcho@hawaii.edu, Hale ‘Alaka‘i 120

As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator.

UH Alerts

The UH Alert emergency notification system alerts the university community in the event of a natural, health, or civil emergency. To sign up, visit UH Alerts.