



UNIVERSITY
of HAWAII®
WEST O'AHU



UNIVERSITY of HAWAII®
HONOLULU
COMMUNITY COLLEGE

UNIVERSITY OF HAWAII ARTICULATION AGREEMENT

Honolulu Community College Associate of Science Degree in Computing, Security, and Networking Technology (CSNT) to the University of Hawai'i West-O'ahu Bachelor of Applied Science Degree with a Concentration in Information Security and Assurance (ISA)

The purpose of this articulation agreement is to facilitate the transition pathway for students graduating with an Associate of Science Degree in Computing, Security, and Networking Technology (CSNT) from Honolulu Community College into the Bachelor of Applied Science (BAS) degree program with a concentration in Information Security and Assurance (ISA) at the University of Hawai'i-West O'ahu. These degree programs at Honolulu Community College and the University of Hawai'i-West O'ahu are both designated as National Centers of Academic Excellence in Cyber Defense Education (CAE-CD) by the National Security Agency (NSA) and the Department of Homeland Security (DHS). This pathway is designed to promote the opportunity for CAE students to meet career and educational objectives and obtain an undergraduate degree through these nationally recognized programs.

While this academic pathway represents an efficient and seamless transition of coursework progression from the AS program at Honolulu Community College through the BAS program at the University of Hawai'i-West O'ahu, individual course substitutions may be made on a case-by-case basis as required, as long as required CAE topics and objectives are met in accordance with CAE designations and requirements; however, all core, concentration, general education, focus, and graduation requirements must still be met in those individual cases. Students must graduate from Honolulu Community College with the articulated AS degree in Computing, Security, and Networking Technology to be eligible for the benefits of this agreement.

This agreement also supports the University of Hawai'i-West O'ahu and Honolulu Community College Memorandum of Understanding (MOU), A Degree Pathway Partnership Agreement / Dual Admission and Dual Enrollment Program (5/19/2008), which summarizes an agreement to promote a cooperative, successful undergraduate educational experience for students who attend both institutions.

As part of this articulation agreement, Honolulu Community College agrees to:

1. Identify a program counselor at Honolulu Community College who will partner with the University of Hawai'i-West O'ahu advisors to ensure timely and accurate advising information on pre-admission, admission, degree requirements, and other related advising information.
2. Identify a Honolulu Community College faculty member who will serve as the faculty advisor to students who are part of this articulation into the ISA concentration and consult with the University of Hawai'i-West O'ahu admissions personnel regarding students on an as-needed basis.
3. Inform students that financial aid may be available through the institution the student identifies as his/her home campus each semester and that students must follow the financial aid policies and procedures at that home school in order to be eligible for financial aid.
4. Meet with the University of Hawai'i-West O'ahu BAS-ISA faculty lead minimally every two years, or on an as-needed basis, to discuss potential and planned curricular changes. Any changes to the AS CSNT degree program not aligned with the CAE-CD 2-year designation must be coordinated with the University of Hawai'i-West O'ahu CAE 4-year faculty lead.
5. Continue discussions with the University of Hawai'i-West O'ahu on enrollment processes to benefit the matriculation and transfer processes for CSNT and ISA students.

As part of this articulation agreement, the University of Hawai'i-West O'ahu agrees to:

1. Grant automatic acceptance into the University of Hawai'i-West O'ahu BAS-ISA degree program to students that earn the AS CSNT degree at Honolulu Community College.
2. Identify academic advisors at the University of Hawai'i-West O'ahu who will partner with the Honolulu Community College advisors to ensure timely and accurate advising information on pre-admission, admission, degree requirements, and other related advising information.
3. Identify a University of Hawai'i-West O'ahu faculty member who will serve as the faculty advisor to students who are part of this articulation into the ISA concentration.
4. Inform students that financial aid may be available through the institution the student identifies as his/her home campus each semester and that students must follow the financial aid policies and procedures at that home school in order to be eligible for financial aid.
5. Meet with the Honolulu Community College CSNT faculty lead minimally every two years, or on an as-needed basis, to discuss potential and planned curricular changes. Any changes to the University of Hawai'i-West O'ahu BAS-ISA degree program not aligned with the CAE-CD designation must be coordinated with the Honolulu Community College CSNT faculty lead.

6. Continue discussions with Honolulu Community College on enrollment processes to benefit the matriculation and transfer processes for CSNT and ISA students.

This articulation agreement was signed on May 23, 2019 and is effective beginning Fall 2019. This agreement is based on the General Education and Focus requirements in effect at the University of Hawai'i-West O'ahu for 2019-2020. Effective Fall 2019, new AS in CSNT students entering the University of Hawai'i West-O'ahu will follow the requirements as outlined in this agreement. This agreement supersedes the Honolulu Community College CENT to the University of Hawai'i-West O'ahu MOA from 02/08/2008 and 07/02/2013.

This Agreement will be reviewed as necessary in order to support the transfer, matriculation and graduation of CSNT and ISA students from both Honolulu Community College and the University of Hawai'i-West O'ahu.

HONOLULU COMMUNITY COLLEGE

Associate in Science in Computing, Security and Networking Technology
University of Hawai'i-West O'ahu Articulation Requirements
Based on Catalog Year: 2019-2020

Required Program Courses (41-43 credits)

Credits	Course	Course Title
3	CSNT/ICS 110 or ICS 110P	Introduction to Information Systems
4	CSNT 132	ICT Support (can sub CENT 130 and 131)
4	CSNT 140	Computing Networking I
4	CSNT 228 or CSNT 253	System Administration & TCP/IP Networking with Unix/Linux OR System Administration with Unix/Linux I
4	CSNT 231	Telecommunications
4	CSNT 270	Network Operating Systems
3	CSNT 275	Security Essentials
3	CSNT 280	Database Systems
3-4	ICS 111	Introduction to Computer Science

CSNT Program Elective Course

Select 3 courses from the following:

- CSNT 240 Computer Networking II (4 credits)
- CSNT 285 Introduction to Internet Applications/Web Applications (3 credits)
- CSNT 290V Internship for CSNT or CSNT 293V Cooperative Education (3 credits)
- ICS 211 Introduction to Computer Science II (3 credits)
- ACC 201 Introduction to Financial Accounting (3 credits)
- EE 160 Programming for Engineers (4 credits) or EE 150 Intro to Computer Programming Methods (3 credits) or ICS 212 Programming Structure (3 credits)
- MATH 241 Calculus I or MATH 242 Calculus II if not used to meet another program requirement (4 credits)
- Any CSNT or ISA course numbered 300 or above that is not otherwise used to meet a program requirement (3 credits)

General Education Requirements (16 credits)

Gen Ed / Focus	Credits	Requirement/Course Title
FW	3	Communications: ENG 100 Composition I
FS/FQ	3	Quantitative Reasoning: MATH 103 College Algebra, MATH 115 Statistics, or MATH 135 Pre-calculus: Elementary Functions or higher level Mathematics

Gen Ed / Focus	Credits	Requirement/Course Title
*FGA	3	Humanities: Any course numbered 100 or above designated to meet Humanities and Fine Arts requirement. Recommend HIST 151 World History to 1500 *HIST 151, will count for the FGA General Education requirement
DP/DY	4	Natural Sciences: PHYS 105 Principles of Technology
DS	3	Social Sciences: Any course numbered 100 or above designated to meet the Social Sciences requirement. Recommend ECON 130 or ECON 131

Other Program Requirements (3 credits)

Complete ENG 209 Business and Managerial Writing **or** ENG 210 Writing Term Papers **or** ENG 200 Composition II

Total 60-64 credits for AS

UNIVERSITY OF HAWAI'I-WEST O'AHU

Bachelor of Applied Science, Information, Security and Assurance
Honolulu Community College AS CSNT Articulation Pathway
Based on Catalog Year: 2019-2020

General Education Requirements (31 credits)

Gen Ed / Focus	Credits	Requirement/Course Title
FW	3	Written Communication: ENG 100 Composition I
FS/FQ	3	Symbolic Reasoning: MATH 103 College Algebra, MATH 115 Statistics, or MATH 135 Pre-calculus: Elementary Functions or higher level Mathematics
FG	6	Global & Multi-cultural Perspectives: Complete 6 credits from two different groups (FGA, FGB or FGC)
DA, DH, DL	6	Diversification Arts, Humanities or Literature: Complete 6 credits from two different areas <i>*HWST 107 Hawai'i: Center of the Pacific (DH, HAP) is strongly recommended</i>
DS	6	Diversification Social Sciences: Complete 6 credits from two different subject areas <i>*ECON 130 Principles of Microeconomics or ECON 131 Principles of Macroeconomics is strongly recommended</i>
DB, DP, DY	7	Diversification Natural Sciences: Complete 3 credits of Biological Science(DB), 3 credits of Physical Science (DP) and 1 credit of Lab (DY) <i>*PHYS 105 Principles of Technology (DP and DY) is required</i>

Applied Science Core (9-12 credits)

Gen Ed / Focus		Requirement/Course Title
	3	ENG 200 Composition II. ENG 209, ENG 210 or ENG 215
	3	SSCI 210 Statistical Analysis I
*DS/ETH	3	SSCI 301 Methods and Techniques in Social Science Research <i>*If designated as a DS and/or ETH when completed, it will satisfy UHWO's DS general education requirement and ETH focus requirement</i>
ETH	0-3	300-400 level course with an ETH designation (may be combined with other requirements)

ISA Upper Division Program Requirements (18 credits)

Gen Ed / Focus	Credits	Course	Course Title
	3	ISA 320	Fundamentals of Secure Software Programming
	3	ISA 330	Introduction to Proactive System Security
	3	ISA 340	Introduction to Digital Forensics
	3	ISA 400	Management of Information Security
	3	ISA 450	Modern Cyber Conflicts
WI	3	ITS 410	Project Management

ISA Upper Division Electives (18 credits)

Complete 18 credits of 300 or higher level ISA, CSNT**, IT, MATH, PUBA or Business Area* Electives

*Business Area is meant to reflect any course in core or concentration areas within the BA in Business Administration Programs including ACC, BUSA, ECON, FIN, FMGT, MGT, or MKT

** CSNT Upper Division Focus. Students may complete a focus area in CSNT by completing the following elective courses at Honolulu Community College (All ISA students are eligible to complete this focus area or complete individual CSNT upper division electives at HON.)

Capstone (3 credits)

APSC 486S Senior Project (WI) OR APSC 490S Senior Practicum (WI)

Writing Intensive Requirement

Complete 3 classes at the upper division (300 or higher) level Writing Intensive (WI) courses. A minimum of two classes must come from coursework outside of the Capstone Course (APSC 486S or APSC 490S).

Focus Requirement

Oral Communication (OC)
Contemporary Ethical Issues (ETH)
Hawaiian, Asian and Pacific Issues (HAP)

Note: A minimum of 120 total credits must be earned, which includes a minimum of 45 credits of upper division coursework. A minimum of 30 credits must be earned “in residence” through courses taken at UHWO.

Bachelor of Applied Science, Information Security and Assurance **(Honolulu Community College AS CSNT Articulation Agreement)**

The goal of academic advising is to further enhance the educational mission of the university, and create quality, accessible advising partnerships with all students in a positive environment that supports student success. This advising sheet is for tracking purposes toward degree completion and is subject to change. Students also may track their academic progress via STAR Degree Check through www.star.hawaii.edu. Academic Advising appointments may be scheduled by calling [808-689-2689](tel:808-689-2689) or toll-free from neighbor islands at [866-299-8656](tel:866-299-8656).

Graduation Requirements (see the current catalog for any additional graduation requirements):

- | | | |
|--|---|--|
| <input type="checkbox"/> 45 Upper Division Credits Minimum | <input type="checkbox"/> 3 Upper Division Writing Intensive Courses | <input type="checkbox"/> 2.0 UHWO GPA |
| <input type="checkbox"/> 120 Total Credits Minimum | <input type="checkbox"/> Focus Requirements (OC, HAP, ETH) | <input type="checkbox"/> 2.0 CONCENTRATION GPA |
| <input type="checkbox"/> 30 UHWO Credits | | |

General Education Requirements: 27-31 credits

Credits	Course Alpha / Number / Title
3	Foundations Written Communications (FW) (HCC) ENG 100 Composition I
3	Foundations Symbolic Reasoning (FS) OR Foundations of Quantitative Reasoning (FQ) (HCC) MATH 103, MATH 115, MATH 135, MATH 140 or higher
6	Foundations Global and Multicultural Perspectives (FG): Recommend HIST 151 (HCC) 6 credits from two different groups (A, B, C): *Group A: Primarily before 1500 CE (e.g.; HIST 151 or ANTH 151) *Group B: Primarily after 1500 CE (e.g.; HIST 152 or ANTH 152) *Group C: Pre-history to present
6	Diversification Arts, Humanities & Literature (DA, DH, DL): Recommend HAP and OC focus courses 6 credits from two different areas
3	Diversification Social Sciences (DS): 6 credits from two different areas Recommend ECON 130 or 131 (HCC)
3	Diversification Social Sciences (DS): Different area from above.
3	Diversification Natural Sciences (DB, DP, DY): 3 credits from the biological sciences (DB):
0-3	3 credits from the physical sciences (DP): Recommend PHYS 105, will count as DP (HCC)
0-1	1 credit of laboratory (DY): Recommend PHYS 105, will count as DY (HCC)

Applied Science Core Requirements: 9-12 credits

Credits	Course Alpha / Number / Title
3	ENG 200 Composition II, ENG 209, ENG 210, ENG 215 (or equivalent) (HCC)
3	SSCI 210 Statistical Analysis I (Pre: Math 115 with a C- or higher)
3	SSCI 301 Methods & Techniques in Social Science Research
0-3	300-400 level course with an ETH designation (*may be combined with other requirements)

Honolulu Community College CSNT Lower Division Coursework: 45-49 credits *(waived upon completion of AS degree)*

Credits	Course Alpha / Number / Title
4	PHYS 105 Principles of Technology (can also satisfy DP and DY General Ed Requirement)
3	CSNT/ICS 110 or ICS 110P Introduction to Information Systems
4	CSNT 132 ICT Support [can sub CENT 130 and CENT 131]
4	CSNT 140 Computer Networking I
4	CSNT 228 System Administration & TCP/IP Networking with Unix/Linux or CSNT 253 System Administration with Unix/Linux I

Credits	Course Alpha / Number / Title
4	CSNT 231 Telecommunications
4	CSNT 270 Networking Operating Systems I
3	CSNT 275 Security Essentials
3	CSNT 280 Database Systems I
3-4	ICS 111 Introduction to Computer Science I

Program Electives:

Select 3 courses from below:

CSNT 240 Computer Networking II (4 credits)

CSNT 285 Introduction to Internet Applications/Web Applications (3 credits)

CSNT 290V Internship for CSNT **or** CSNT 293V Cooperative Education (3 credits)

ICS 211 Introduction to Computer Science II (3 credits)

ACC 201 Introduction to Financial Accounting (3 credits)

EE 160 Programming for Engineers (4 credits) **or** EE 150 Intro to Computer Programming Methods **or** ICS 212 Programming Structure

MATH 241 Calculus I **or** MATH 242 Calculus II if not used to meet another program requirement (4 credits)

Any CSNT or ISA course numbered 300 or above that is not otherwise used to meet a program requirement (3 credits)

Credits	Course Alpha / Number / Title
3	
3	
3	

ISA Upper Division Concentration Requirements: 18 credits

Credits	Course Alpha / Number / Title
3	ISA 320 Fundamentals of Secure Software Programming
3	ISA 330 Introduction to Proactive System Security
3	ISA 340 Introduction to Digital Forensics
3	ISA 400 Management of Information Security
3	ISA 450 Modern Cyber Conflicts
3	ITS 410 IT Project Management (WI)

ISA Upper Division Electives: 18 credits

Complete 18 credits of 300 or higher level ISA, CSNT, ITS, MATH, PUBA, or Business Area* electives**

**Business Area is meant to reflect any course in core or concentration areas within the BA in Business Administration Programs including ACC, BUSA, ECON, FIN, FMGT, HOST, MGT, or MKT*

*** CSNT Upper Division Focus. Students may complete a focus area in CSNT by completing the following elective courses at HON (All ISA students are eligible to complete this focus area or complete individual CSNT upper division electives at HON.)*

Credits	Course Alpha / Number / Title
3	<i>300 or higher level ISA, CSNT**, ITS, MATH, Business* or PUBA courses not used to meet any other requirement</i>
3	<i>300 or higher level ISA, CSNT**, ITS, MATH, Business* or PUBA courses not used to meet any other requirement</i>

Credits	Course Alpha / Number / Title
3	<i>300 or higher level ISA, CSNT**, ITS, MATH, Business* or PUBA courses not used to meet any other requirement</i>
3	<i>300 or higher level ISA, CSNT**, ITS, MATH, Business* or PUBA courses not used to meet any other requirement</i>
3	<i>300 or higher level ISA, CSNT**, ITS, MATH, Business* or PUBA courses not used to meet any other requirement</i>
3	<i>300 or higher level ISA, CSNT**, ITS, MATH, Business* or PUBA courses not used to meet any other requirement</i>

Capstone Requirement: 3 credits

Credits	Course Alpha / Number / Title
3	APSC 486S Senior Project (WI) or APSC 490S Senior Practicum (WI)

**Complete four to six 300 level CSNT courses taken at Honolulu Community College, which can also be used to meet the requirements for an Advanced Professional Certificate in CSNT while completing the CSNT focus area. Refer to the Honolulu CC catalog for current information about the Advanced Professional Certificate (APC) in CSNT requirements and refer to the class availability listing to find courses offered each semester.

Currently recommended 300 level CSNT courses include those listed below

- CSNT 310 Network Security
- CSNT 315 Network Management
- CSNT 320 Internet of Things
- CSNT 330 Ethical Hacking
- CSNT 340 Advanced Routing
- CSNT 370 Integrated Network Applications (Advanced Linux)
- CSNT 375 Virtualization (vSphere)
- CSNT 377 Cloud Infrastructure & Services
- CSNT 380 Malware Analysis
- CSNT 385 Scripting for Cybersecurity
- CSNT 390 Special Topics in CSNT

NOTES:

- Dr. Matthew Chapman is the faculty contact for this program. For additional information, Dr. Chapman may be contacted at mchapman@hawaii.edu or at (808) 689-2333.
- Students must earn the AS degree from Honolulu Community College to follow this articulation agreement
- Check the UHWO and HCC Catalogs for course pre-requisites