UNIVERSITY OF HAWAI‘I

SYSTEM ARTICULATION AGREEMENT

Information and Computer Science
Information Technology

September 9, 2016

By agreement of faculty in September 2016 of the seven participating community colleges, this agreement is extended during the review process.
INTRODUCTION

The University of Hawai‘i (UH) Community Colleges are comprised of seven campuses located on six islands in the State of Hawai‘i. While each campus has a unique identity and mission, the seven campuses are part of one system.

During the course of their education, students may decide to transfer from one UH Community College to another. The development of an articulated program of study supports the transfer of earned academic credits within the UH Community College system.

PURPOSE

The primary purpose of this articulation agreement is to facilitate the matriculation of students and the transfer of courses across the UH Community College system. Moreover, it is intended to inform students whose program of study requires Information and Computer Science or Information Technology courses as part of their degree requirements of the program opportunities that are available to them throughout the UH Community College system.

AGREEMENT AND PROCEDURES

1. **Scope of Agreement.** This Articulation Agreement applies among the UH Community Colleges and the University of Hawai‘i Maui College.

2. **General Guidelines for the Application of Award of Transfer Credits**

   A. **Student Eligibility:** Students must be currently enrolled at a participating UH campus to be eligible for the award of any transfer credit.
B. **Timeline for Application:** Students should apply for transfer credits during their first year of attendance at the receiving campus.

C. **Transferability:** Credits awarded within the guidelines established in this Agreement will transfer between and among designated University of Hawai‘i Community Colleges. However, students should be informed by both “sending” and “receiving” campuses that transferred credits may **not** be applicable to programs outside this Agreement.

D. **Campus Procedures:** Each UH Community College that is a party to this Agreement will be responsible for establishing procedures that detail the timeline and deadlines for application, review requests for award of transfer credit, and the appeals process for such credit.

This document lists all 100, 200, and 300-level Information and Computer Science (ICS at UH Maui College, Hawai‘i CC, Kapiʻolani CC, Kaua‘i CC, Leeward CC, Honolulu CC, and Windward CC), and Information Technology (ITS at Kapiʻolani CC) courses that are equivalent within the University of Hawai‘i Community College system. If a course is unique to a campus and, hence, does not have an equivalent course within the UH Community College system, then it is not listed in this document. Also, the course outline(s) in this document have been approved by the faculty and administrations of all campuses represented in this signed agreement.

This Articulation Agreement will remain in effect until September 2021. It will be subject to review in September 2020, and may be continued, revised, or discontinued with the consent of all faculty members and administration of all campuses represented in this agreement. The Articulation Agreement remains in effect while review continues.

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**Note:** Effective Fall 2017, each community college campus offering the courses listed below has agreed upon the course alpha, course number, course title, course abbreviation, credits, prerequisites, schedule type, credit hours, contact hours, workload, course description, and Course Learning Outcomes as listed below.

**Note:** Each campus must meet the agreed upon Course Learning Outcomes (CLOs), but can add additional outcomes.

**Note:** If the class alpha with the same Course Learning Outcomes (CLOs) is offered at another campus, it articulates, as well.
ICS 100 Computing Literacy and Applications

**Course alpha and number:**
ICS 100

**Course title:**
Computing Literacy and Applications

**Course abbreviation (only 30 characters allowed):**
Computing Literacy & Apps

**Prerequisites:**
None

**Schedule type:**
Lecture (LEC)

**Credit Hours:**
3

**Contact Hours:**
45

**Workload (TE - teaching equivalencies):**
3

**Course description:**
An introductory survey of computers and their role in the information world emphasizing computing terminology, hardware, and software. Opportunities for “hands on” experience using applications software may include spreadsheets, word processing, presentations, and communications.

**Course Learning Outcomes:**
1. Utilize the basic features of computing applications to communicate effectively (major content area).
2. Utilize operating system interfaces to manage computing resources effectively and securely.
3. Utilize online resources for research and communication.
4. Define, explain, and demonstrate proper computing terminology usage in areas such as hardware, software, and communications.
5. Describe ethical and security issues involved in the use of computing technology.

Note: ICS 100 Computing Literacy and Applications is not equivalent to CS 100 Principles of Computer Science at UH Hilo.
ICS 101 Digital Tools for the Information World

<table>
<thead>
<tr>
<th>Course alpha and number:</th>
<th>ICS 101</th>
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<tbody>
<tr>
<td>Course title:</td>
<td>Digital Tools for the Information World</td>
</tr>
<tr>
<td>Course abbreviation (only 30 characters allowed):</td>
<td>Tools for the Info World</td>
</tr>
<tr>
<td>Prerequisites:</td>
<td>None</td>
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<tr>
<td>Schedule type:</td>
<td>Lecture (LEC)</td>
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<tr>
<td>Credit Hours:</td>
<td>3</td>
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<tr>
<td>Contact Hours:</td>
<td>45</td>
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<tr>
<td>Workload (TE - teaching equivalencies):</td>
<td>3</td>
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</tbody>
</table>

Course description:
Fundamental information technology concepts and computing terminology, productivity software for problem solving, computer technology trends and impact on individuals and society. Emphasizes the utilization of operating systems and the production of professional documents, spreadsheets, presentations, databases, and web pages.

Course Learning Outcomes:
1. Utilize the appropriate computing applications to produce professional documents, spreadsheets, presentations, databases, and web pages for effective communication (major content area).
2. Utilize operating system interfaces to manage computing resources effectively and securely.

3. Extract and synthesize information from available Internet resources using intelligent search and discrimination.

4. Define, explain, and demonstrate proper computing terminology usage in areas such as hardware, software, and communications to effectively interact with other computer users and to prepare for higher-level computer courses.

5. Describe ethical and security issues involved in the use of computing technology.
ICS 110(Alpha) Introduction to Programming

Course alpha and number:
ICS 110(Alpha)

Letter suffix:
P - Python, C - C/C++, D - Animation/Java, M - Mobile, R - Robotics, G - Games, S - C#

Course title:
Introduction to Programming

Course abbreviation (only 30 characters allowed):
Introduction to Programming

Prerequisites:
Vary by campus

Schedule type:
Lecture (LEC)

Credit Hours:
3

Contact Hours:
45

Workload (TE - teaching equivalencies):
3

Course description:
A gentle introduction to coding for anyone. Students use design strategies to create programs. Promotes an understanding of basic programming constructs, including control structure and object-oriented programming. The alpha suffix indicates technology such as: P - Python, C - C/C++, D - Animation/Java, M - Mobile, R - Robotics, G - Games, S - C#.
**Course Learning Outcomes:**

1. Create a program using variables, conditional statements, looping, and event handlers.
2. Use critical thinking and problem solving in creating programs.
3. Create programs using the program life cycle.

**Note:** Hawai‘i CC’s ITS 103 is equivalent to ICS 110.

**Note:** Students can get credit for repeating the course with different ending letters, but not the same letter.
### ICS 111 Introduction to Computer Science I

<table>
<thead>
<tr>
<th><strong>Course alpha and number:</strong></th>
<th>ICS 111</th>
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<tbody>
<tr>
<td><strong>Course title:</strong></td>
<td>Introduction to Computer Science I</td>
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<tr>
<td><strong>Course abbreviation (only 30 characters allowed):</strong></td>
<td>Intro to Computer Science I</td>
</tr>
<tr>
<td><strong>Prerequisites:</strong></td>
<td>Vary by campus.</td>
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<tr>
<td><strong>Schedule type:</strong></td>
<td>Lecture (LEC)</td>
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<tr>
<td><strong>Credit Hours:</strong></td>
<td>3 (or 4)</td>
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<tr>
<td><strong>Contact Hours:</strong></td>
<td>45 (or 60)</td>
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<tr>
<td><strong>Workload (TE - teaching equivalencies):</strong></td>
<td>3 (or 4)</td>
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<tr>
<td><strong>Course description:</strong></td>
<td>An overview of the fundamentals of computer science emphasizing problem solving, algorithm development, implementation, and debugging/testing using an object-oriented programming language is covered.</td>
</tr>
<tr>
<td><strong>Course Learning Outcomes:</strong></td>
<td></td>
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<tr>
<td>1. Use an appropriate programming environment to design, code, compile, run and debug computer programs.</td>
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<tr>
<td>2. Demonstrate basic problem solving skills: analyzing problems, modeling a problem as a system of objects, creating algorithms, and implementing models and algorithms in an object-oriented computing language.</td>
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</tbody>
</table>
3. Illustrate basic programming concepts such as program flow and syntax of a high-level general purpose language and basic security practices.
4. Demonstrate working with primitive data types, strings and arrays.

Credit by institutional exam:
Passing must be 80% or better.

Note: Hawaii CC’s ITS 118 is equivalent to ICS 111.

Note: There was no consensus on this course.
3 credits lecture: KapCC, LeeCC, WinCC
4 credits lecture: UHMC, HonCC
4 credits lecture/lab: HawCC (ITS 118), KauCC (can potentially change to 3 credits lecture/1 credit lab)
# ICS/ITS 129 Introduction to Databases

| **Course alpha and number:** | ICS 129  
ITS 129 |
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Course title:</strong></td>
<td>Introduction to Databases</td>
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<tr>
<td><strong>Course abbreviation (only 30 characters allowed):</strong></td>
<td>Introduction to Databases</td>
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<tr>
<td><strong>Prerequisites:</strong></td>
<td>Vary by campus.</td>
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<tr>
<td><strong>Schedule type:</strong></td>
<td>Lecture (LEC)</td>
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<tr>
<td><strong>Credit Hours:</strong></td>
<td>3</td>
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<tr>
<td><strong>Contact Hours:</strong></td>
<td>45</td>
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<tr>
<td><strong>Workload (TE - teaching equivalencies):</strong></td>
<td>3</td>
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<tr>
<td><strong>Course description:</strong></td>
<td>This course covers the fundamental concepts in database technology, including storage structures, access methods, recovery, concurrency, and integrity. The relational model and its implementation will be covered in depth together with an overview of SQL and its role in application development. The course will also present an overview of database administration, including modeling and design activities. A substantial part of the course involves the development of an understanding of database concepts.</td>
</tr>
<tr>
<td><strong>Course Learning Outcomes:</strong></td>
<td></td>
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</tbody>
</table>
1. Define common database terminology.
2. Create Entity Relationship Diagrams (ERD).
3. Design and create a relational database using the normalization process.
4. Use Structured Query Language (SQL) to manipulate data.
5. Follow best practices in secure database design.
ICS 141 Discrete Mathematics for Computer Science I

Course alpha and number:
ICS 141

Course title:
Discrete Mathematics for Computer Science I

Course abbreviation (only 30 characters allowed):
Discrete Math for CS I

Prerequisites:
Vary by campus

Schedule type:
Lecture (LEC)

Credit Hours:
3

Contact Hours:
45

Workload (TE - teaching equivalencies):
3

Course description:
This course includes logic, sets, functions, matrices, algorithmic concepts, mathematical reasoning, recursion, counting techniques, and probability theory.

Course Learning Outcomes
1. Analyze issues and apply mathematical problem solving skills to plan courses of action in decision-making situations.
2. Solve problems by using basic mathematical formal logic, proofs, recursion, analysis of algorithms, sets, combinatorics, relations, functions, matrices and probability.
| **Course alpha and number:** | ICS 171 (LeeCC, UHMC, WinCC)  
ITS 122 (HawCC, KapCC) |
<table>
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<tbody>
<tr>
<td><strong>Course title:</strong></td>
<td>Introduction to Computer Security</td>
</tr>
<tr>
<td><strong>Course abbreviation (only 30 characters allowed):</strong></td>
<td>Intro to Computer Security</td>
</tr>
<tr>
<td><strong>Prerequisites:</strong></td>
<td>Vary by campus</td>
</tr>
<tr>
<td><strong>Schedule type:</strong></td>
<td>Lecture (LEC)</td>
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<tr>
<td><strong>Credit Hours:</strong></td>
<td>3</td>
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<tr>
<td><strong>Contact Hours:</strong></td>
<td>45</td>
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<tr>
<td><strong>Workload (TE - teaching equivalencies):</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Course description:</strong></td>
<td>Examines the essentials of computer security, including risk management, the use of encryption, activity monitoring, intrusion detection; and the creation and implementation of security policies and procedures to aid in security administration.</td>
</tr>
</tbody>
</table>
| **Course Learning Outcomes:**| 1. List the first principles of security and describe why each principle is important to security and its relationship to the development of security mechanisms and security policies.  
2. Describe why good human machine interfaces are important to system use, |
the interaction between security and system usability and the importance for minimizing the effects of security mechanisms.

3. Analyze common security failures and identify specific design principles that have been violated, and the needed design principle, when given a specific scenario.

4. List the fundamental concepts of the Information Assurance/Cyber Defense discipline and describe how they can be used to provide system security.

5. Identify the elements of a cryptographic system and describe the differences between symmetric and asymmetric algorithms, which cryptographic protocols, tools and techniques are appropriate for a given situation, and implementation issues.

**Note:** Students sometimes choose to take the CompTIA Security+ certification test following completion of this class because of the large overlap between this course and the Security+ exam objectives.
ICS 184/ITS 124 Introduction to Networking

**Course alpha and number:**
ICS 184
ITS 124

**Course title:**
Introduction to Networking

**Course abbreviation (only 30 characters allowed):**
Introduction to Networking

**Prerequisites:**
Vary by campus

**Schedule type:**
Lecture (LEC)

**Credit Hours:**
3

**Contact Hours:**
45

**Workload (TE - teaching equivalencies):**
3

**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.

**Course Learning Outcomes:**
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.

**Note:** Some students may opt to take the CompTIA Network+ exam upon the completion of ITS 124 because much of the CompTIA Network+ exam material is covered in class.
# ICS 200/ITS 227 Web Site Design and Development (TBD)

**Course alpha and number:**
ICS 200 (UHMC)
ITS 227 (KapCC)

**Course title:**
Web Site Development

**Course abbreviation (only 30 characters allowed):**
Web Site Design & Development

**Prerequisites:**
None

**Schedule type:**
Lecture (LEC)

**Credit Hours:**
3

**Contact Hours:**
45

**Workload (TE - teaching equivalencies):**
3

**Course description:**
Introduces web page authoring. Creates client-side web pages using web authoring language and style sheets. Uses graphical design elements, validation, browser capability, and accessibility. Uses scripting language to add dynamic elements to web pages, client-side scripting, regular expressions, event handling, input validation, selection, repetition, and parameter passing.

**Course Learning Outcomes:**
1. Demonstrate the website development cycle.
   a. Use scripting to build dynamic web applications.
b. Use styling and markup languages to create simple user interfaces.

c. Use scripting functions to optimize web applications for different devices.

d. Design and create a web application using agile development techniques.

2. Use appropriate web development software to create an effective website that communicates a message, incorporates appropriate media, and adheres to usability and accessibility standards.

3. Demonstrate understanding of important design techniques, concept development and composition.
Course alpha and number:
ICS 211

Course title:
Introduction to Computer Science II

Course abbreviation (only 30 characters allowed):
Intro to Computer Science II

Prerequisites:
Vary by campus.

Schedule type:
Lecture (LEC)

Credit Hours:
3

Contact Hours:
45

Workload (TE - teaching equivalencies):
3

Course description:
Reinforce and strengthen problem-solving skills using abstract data types and introduce software development practices. Emphasize the use of searching and sorting algorithms and their complexity, recursion, object-oriented programming, and data structures.

Prerequisite:
ICS 111 with a grade of “B” or higher, or instructor consent.

Course Learning Outcomes
1. Use and implement abstract data types such as lists, stacks, queues, and
trees.
2. Select the appropriate searching or sorting algorithm based on the
algorithm’s behavior.
3. Develop recursive algorithms and programs.
4. Use standard libraries or packages as well as advanced object-oriented
programming techniques (polymorphism, inheritance, and encapsulation).
5. Produce robust and secure programs using exception handling and
extensive program testing.
ICS 212 Program Structure

**Course alpha and number:**
ICS 212

**Course title:**
Program Structure

**Course abbreviation (only 30 characters allowed):**
Program Structure

**Prerequisites:**
ICS 211 with a grade of “B” or higher, or instructor consent.

**Schedule type:**
Lecture (LEC)

**Credit Hours:**
3

**Contact Hours:**
45

**Workload (TE - teaching equivalencies):**
3

**Course description:**
Program organization paradigms, programming environments, implementation of a module from specifications, the C and C++ programming languages.

**Course Learning Outcomes**
1. Develop properly structured multifile programs with automatic compilation.
2. Implement recursion, arrays, pointers, character variables, bitwise operators, structures, and linked data structures in C.
3. Use classes (constructors, destructor, and overloading assignment), operator overloading, inheritance, polymorphism, and linked data structures in C++.
4. Use standard C++ strings and C++ STL library data structures, such as STL lists.
ICS 215 Introduction to Scripting

**Course alpha and number:**
ICS 215

**Course title:**
Introduction to Scripting

**Course abbreviation (only 30 characters allowed):**
Introduction to Scripting

**Prerequisites:**
Minimum of ICS 111 with a “B” or higher or consent of instructor. Additional prerequisites vary by campus.

**Schedule type:**
Lecture (LEC)

**Credit Hours:**
3

**Contact Hours:**
45

**Workload (TE - teaching equivalencies):**
3

**Course description:**
Introduction to scripting languages for the integration of applications and systems. Scripting in operating systems, web pages, server-side application integration, regular expressions, event handling, input validation, selection, repetition, and parameter passing for languages such as Perl, JavaScript, PHP, Python, and/or shell scripting.

**Course Learning Outcomes:**
1. Use regular expressions to solve different problems.
2. Produce robust client and server side scripts in a variety of scripting
languages using software engineering techniques such as review and extensive program testing.

3. Handle user and system generated events using various scripting languages.

4. Validate user input using various scripting languages for security purposes.

**Note:** ICS 215 is an alternative to ICS 212, but students should be careful. ICS 215 is just the prereq to ICS 315 at UHM. ICS 212 is a prereq for ICS 312 and ICS 313 at UHM.
Course alpha and number:  
ICS 241  

Course title:  
Discrete Mathematics for Computer Science II  

Course abbreviation (only 30 characters allowed):  
Discrete Math for CS II  

Prerequisites:  
ICS 141 with a grade of “C” or higher, or instructor consent.  

Schedule type:  
Lecture (LEC)  

Credit Hours:  
3  

Contact Hours:  
45  

Workload (TE - teaching equivalencies):  
3  

Course description: Includes program correctness, recurrence relations and their solutions, divide and conquer relations, graph theory, trees and their applications, Boolean algebra, introduction to formal languages and automata theory.  

Student Learning Outcomes:  
1. Analyze issues and apply complex mathematical problem solving skills to plan courses of actions in high-level decision-making situations.  
2. Utilize such tools as graphs, trees, boolean algebra, and recurrence relations.  
3. Explain discrete math concepts such as formal languages, finite-state machines, and program correctness.
| **Course alpha and number:** | ICS 281 (HawCC, LeeCC, UHMC)  
ITS 222 (KapCC) |
<table>
<thead>
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<tr>
<td><strong>Course title:</strong></td>
<td>Ethical Hacking</td>
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<tr>
<td><strong>Course abbreviation (only 30 characters allowed):</strong></td>
<td>Ethical Hacking</td>
</tr>
<tr>
<td><strong>Prerequisites:</strong></td>
<td>Vary by campus</td>
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<tr>
<td><strong>Schedule type:</strong></td>
<td>Lecture (LEC)</td>
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<tr>
<td><strong>Credit Hours:</strong></td>
<td>3</td>
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<tr>
<td><strong>Contact Hours:</strong></td>
<td>45</td>
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<tr>
<td><strong>Workload (TE - teaching equivalencies):</strong></td>
<td>3</td>
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<tr>
<td><strong>Course description:</strong></td>
<td>This course covers basic ethical hacking</td>
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<td>techniques also known as white hat hacking.</td>
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<td></td>
<td>It stresses the moral and legal issues about</td>
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<td>hacking and how these techniques can be used</td>
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<td></td>
<td>to defend against attacks as well as to</td>
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<td></td>
<td>perform authorized system security evaluation</td>
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<tr>
<td></td>
<td>testing.</td>
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<tr>
<td><strong>Course Learning Outcomes:</strong></td>
<td>1. Identify, describe, and apply current cyber</td>
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<tr>
<td></td>
<td>attack, defense incident response,</td>
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<td></td>
<td>and recovery strategies, tactics,</td>
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<tr>
<td></td>
<td>countermeasures, and best practices using</td>
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<td>current cyber defense tools, methods, and</td>
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<td>components.</td>
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</tbody>
</table>
2. Identify the bad actors in cyberspace and compare and contrast their resources, capabilities/techniques, motivations, aversion to risk, and threat potential.

3. List the applicable ethical issues, laws and policies related to cyber defense and digital forensics and describe the major components of each pertaining to the storage and transmission of data and resolution of legal disputes.

4. Examine the architecture of a typical, complex system and identify significant vulnerabilities, risks, and points at which specific security technologies/methods should be employed.

**Note:** Some students may opt to take the EC-Council CEH exam upon the completion of this course because much of the EC-Council CEH exam material is covered in class.
ICS 282 - Computer Forensics (TBD - Hal pull up KUs)

**Course alpha and number:**
ICS 282 (HawCC, LeeCC, UHMC)
ITS 381F (KapCC)

**Course title:**
Computer Forensics
Topics in Information Technology: Computer Forensics and Investigations

**Course abbreviation (only 30 characters allowed):**
Computer Forensics

**Prerequisites:**
Vary by campus

**Schedule type:**
Lecture (LEC)

**Credit Hours:**
3

**Contact Hours:**
45

**Workload (TE - teaching equivalencies):**
3

**Course description:**
This course covers basic computer forensics including operating system diagnostics, the use of forensic toolkits to examine and validate computer activity and techniques for the proper collection, examination and preservation of forensic evidence.

**Course Learning Outcomes:**
(need to update this to match the CAE Knowledge Unit (KU))

1. Discuss the rules, laws, policies, and procedures that affect digital forensics.
2. Use one or more common DF tools, such as EnCase, FTK, ProDiscover, Xways, SleuthKit.
3. Describe the steps in performing digital forensics from the initial recognition of an incident through the steps of evidence gathering, preservation and analysis, through the completion of legal proceedings.

1. Demonstrate how to properly collect and examine forensic evidence.
2. Explain various operating system fundamentals.
3. Demonstrate the use of a forensic toolkit.

1. Use correct terminology related to computer forensics and investigations.
2. Discuss the ethical issues involved in computer crime and investigations.
3. Discuss the applicable laws and legal issues involved in computer crime and investigations.
4. Use computer forensics tools to acquire a forensic image of a computer in accordance with the requirements and best practices of digital evidence.
5. Describe the differences in acquiring and analyzing data from Macintosh, Windows, Linux/UNIX, and mobile devices.
6. Use computer forensics tools to acquire and analyze digital evidence in a controlled environment.
7. Describe the importance and methods of live acquisition of data.
8. Discuss the types of evidence available in graphics files.
9. Discuss the types of evidence available from email.
10. Write a forensic investigation report.
11. Discuss methods of and issues related to network forensics.
UNIVERSITY OF HAWAI‘I SYSTEM ARTICULATION AGREEMENT
Information and Computer Science (ICS)
Information Technology (IT)

University of Hawai‘i Maui College

_________________________________________  __________________
Clyde Sakamoto, Chancellor                  Date

_________________________________________  __________________
John McKee, Vice Chancellor of Academic Affairs  Date

_________________________________________  __________________
David Grooms, Interim Assistant Dean of Instruction  Date

_________________________________________  __________________
Daniel Kruse, Assistant Professor and Chair Academic Senate  Date

_________________________________________  __________________
Debasis Bhattacharya, Instructor, ABIT Program Coordinator  Date
UNIVERSITY OF HAWAI'I SYSTEM ARTICULATION AGREEMENT
Information and Computer Science (ICS)
Information Technology (IT)

Hawai‘i Community College

Rachel Solemsaas, Chancellor  
Date

Joni Onishi, Vice Chancellor for Academic Affairs  
Date

Joyce Hamasaki, Dean of CTE  
Date

Robert Yamane, Chair, Business Education and Technology Division  
Date

Annie Brown, Professor, IT Program Coordinator  
Date
UNIVERSITY OF HAWAI‘I SYSTEM ARTICULATION AGREEMENT
Information and Computer Science (ICS)
Information Technology (IT)

Honolulu Community College

________________________________________________________________________
Erika Lacro, Chancellor
Date

________________________________________________________________________
Katy Ho, Vice Chancellor for Academic Affairs
Date

________________________________________________________________________
Russell Uyeno, Dean, Communication and Services Division
Date

________________________________________________________________________
R. James Poole, Chair, Communications and Services Division
Date

________________________________________________________________________
Vern Takeybayashi, Chair, ICS Department
Date
UNIVERSITY OF HAWAI'I SYSTEM ARTICULATION AGREEMENT
Information and Computer Science (ICS)
Information Technology (IT)

Kapi‘olani Community College

Louise Pagotto, Chancellor

, Vice Chancellor for Academic Affairs

Interim Dean of Hospitality, Business and Legal Education

Trude Pang, Chair, Business, Legal, and Technology Education Department

Steven A. Singer, Professor, ICS/IT Program

Alfred Seita, Professor, ICS/IT Program

Hal Corcoran, Assistant Professor, ICS/IT Program Coordinator

David Stevens, IT Instructor

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Information and Computer Science (ICS)
Information Technology (IT)

Kaua‘i Community College

_________________________________________                      ____________________________
Helen A. Cox, Chancellor                                      Date

_________________________________________                      ____________________________
James R. Dire, Vice Chancellor for Academic Affairs             Date

_________________________________________                      ____________________________
Earl Nishiguchi, Vice Chancellor for Student Affairs            Date

_________________________________________                      ____________________________
Gigi Drent, Science and Mathematics Division Chair             Date

_________________________________________                      ____________________________
Georganne Purvinis, Assistant Professor, Electronics Technology Date
UNIVERSITY OF HAWAI‘I SYSTEM ARTICULATION AGREEMENT
Information and Computer Science (ICS)
Information Technology (IT)

Leeward Community College

_________________________________________  __________________
Manuel Cabral, Chancellor                      Date

_________________________________________  __________________
Della Teraoka, Vice Chancellor for Academic Affairs Date

_________________________________________  __________________
James Goodman, Dean of Arts and Sciences        Date

_________________________________________  __________________
Jennie Thompson, Division Chair, Math and Sciences Date

_________________________________________  __________________
Blanca Polo, Associate Professor and ICS Discipline Coordinator Date

_________________________________________  __________________
Michael Bauer, Associate Professor             Date

_________________________________________  __________________
William Albritton, Associate Professor          Date

_________________________________________  __________________
Petersen Gross, Instructor                      Date
University of Hawai'i System Articulation Agreement

Information and Computer Science (ICS)
Information Technology (IT)

Windward Community College

Douglas Dykstra, Chancellor

Date

Ardis Eschenberg, Vice Chancellor for Academic Affairs

Date

Navtej Singh, Chair, Math and Business Department

Date

Laura Sue, Instructor

Date

Vanessa Cole, Instructor

Date