Microsoft logo white text version

Community College – Cybersecurity training handout

# Synchronous training

## Background on the Education System

[Information Systems Security Association (ISSA)](https://www.issa.org/code-of-ethics/)

[Family Educational Rights and Privacy Act (FERPA)](https://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html)

[Americans with Disabilities Act (ADA)](https://www.dol.gov/general/topic/disability/ada)

Degree pathways

## [Center of Academic Excellent in Cybersecurity (CAE-C)](https://www.caecommunity.org/about-us/what-cae-cybersecurity)

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| --- | --- | --- |
|  |  |  |

## Education Policy Committee

Ensure all learners receive the same educational experience.

Determine what rules govern educators

Information required on a syllabus

Number of hours of homework

Office hours

Academy honesty (plagiarism, cheating, etc.)

## Content and pedagogical knowledge

Content knowledge – “What to teach”

Pedagogical Knowledge – “How to teach”

Pedagogical content knowledge (PCK) – ‟How to teach this subject”

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S** | **M** | **A** | **R** | **T** |
| Specific | Measurable | Attainable | Relevant | Time-based |
| Bullseye outline | Presentation with pie chart outline | Aspiration outline |  | Stopwatch outline |
| Make goals clear and **specific** | Define **measurable** assets | Confirm your goals are **attainable** | Verify your goals are **relevant** | Set up a **time-based** plan |

## Workforce Framework for Cybersecurity (NICE)

* [NICE Framework](https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-181r1.pdf)
* [National Institute for Standards and Technology](https://www.nist.gov/)
* [NICE Framework Webinar](https://www.nist.gov/video/nice-webinar-how-you-can-influence-update-nice-framework)

## Discussion: Multiple types of Learners in CC

What are the different types of students that will be taking your classes?

How will these personas impact instruction?

Learning partnerships

|  |  |
| --- | --- |
| Building authentic trusting relationship with students and using that bond to help students “rise to higher expectations” | Greet students  Ask about life events or interests outside the classroom  Use and learn correct pronunciation of student names  Share a challenge you had a young person or as a learner  Recognize student successes – but don’t lavish praise for simple tasks  Positively guide distracted students toward the initial steps to complete the task  Provide checkpoints/scoring guides for assignments so students can self-check themselves |
| Handshake |

## Discussion: Normalizing Cyber common sense

What are some examples of Cyber common sense?

How could you normalize these items for your students?

## Discussion: Incorporating emerging technologies & trends

How could you bring your expertise to enhance the student experience?

## Checklist: Before the first day with students

Sign all employment forms

Obtain an ID badge

Determine what department Cyber is in. (IT, Computer Science)

Determine the accreditation of the school you are placed in.

Meet with Dept. Chair or other instructors to ask about syllabus template or sample

Find information on the educational policy committee.

Get familiar with the university calendar.

Understand the policies on course cancelation, makeup exams, grading policy.

Identify parking procedures on campus for staff.

# Asynchronous training

## First Principles for Effective Instruction

<https://mdavidmerrill.wordpress.com/publications/first%20principles%20of%20instruction/>

Learning is promoted when …

1. Learners are engaged in solving real-world problems.
2. Existing knowledge is activated as a foundation for new knowledge.
3. New knowledge is demonstrated to the learner
4. New knowledge is applied by the learner.
5. New knowledge is integrated into the learner’s world.

## Cold call – Engagement strategy

Take a few minutes and formulate a couple strategies an instructor could use to ensure they are engaging with every student in the class within a time frame.

## Concrete to abstract – Privacy

### Examples

Concrete – <https://youtu.be/jJrICB_HvuI>

Abstract – <https://youtu.be/71mSYkuGZtk>

## Application

<https://classic.csunplugged.org/activities/public-key-encryption/>

## Wise Feedback

<http://www.columbia.edu/cu/psychology/vpvaughns/assets/pdfs/Yeager_Breaking_the_Cycle_2013.pdf>

## Key Terms for Hybrid Instruction

A Learning Management System (or LMS) is an application used for the administration, documentation, tracking, reporting and delivery of educational resources. Students can use the LMS to access course content, find and turn in assignments, take assessments, communicate with instructors, and interact with other students.

A Remote (or virtual) classroom allows teachers and students to communicate and collaborate in an online environment.

Breakout Rooms is a feature that allows the teacher to create virtual rooms where students can be broken up from the larger classroom into smaller groups to communicate and collaborate with each other.

## Instructional Models:

### Synchronous

Teacher led instruction with students online at the same time

Scheduled classes, office hours

### Asynchronous

Students access work online and work independently

Support is through email, discussion board, or chat

### Hybrid (or Blended)

Teacher leads class synchronous and provides asynchronous assignments

Can be both virtual and in person

## Best practice for Hybrid Instruction

Presence

Engagement

Feedback

Blended Learning

Community