

**Department Master Syllabus  
Camden County College  
Blackwood, New Jersey**

**Course Title:** The Research Process using Computer Resources

**Course Number:** CIS- 111

**Department/Program Affiliation:** Computer Information Systems

**Date of Review:**

(This Department Master Syllabus has been examined by the program/department faculty members and it is decided that no revision is necessary at this time.)

**Date of Last Revision:** October, 2018

(This Department Master Syllabus has been examined by the program/department faculty members and it is decided a change requiring a revision is necessary at this time.)

**N.B. A change to the course materials alone (textbooks and/or supplementary materials) may not constitute a revision. Any other change to the items listed below on this form is considered a revision and requires approval by the program faculty at a Program/Department Meeting and by the division at a Chairs and Coordinator Meeting.**

**Credits:** 1

**Contact Hours:** Lecture 1                      Lab 0                      Other 0

**Prerequisites:** None

**Co-requisites:** None

**Course Description:**

This course is designed to assist students to find accurate information for a specific need using computer-based technologies. The Camden County College Library uses the Information Search Process (ISP) Model (<http://wp.comminfo.rutgers.edu/ckuhlthau/information-search-process/>) to teach information literacy to the students. This model incorporates the Information Literacy Competency Standards for Higher Education as well as the defining aspects of information literacy into an easy to use process for students. According to the American Library Association's *Information Literacy Competency Standards*, information literacy is "a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information." The Standards also state "information literacy is also increasingly important in the contemporary environment of rapid technological change and proliferating information resources."

The ISP Model is a six step guide used to teach students how to best approach a research assignment for any class using databases, browsers, search engines, and other electronic or online resources (documents and spreadsheets) available through the Camden County College Library. Information literacy forms the basis for lifelong learning and is common to all disciplines, all learning environments and all levels of education.

**Course Student Learning Outcomes:** (Cognitive, Psychomotor, Affective Domains)

Upon completion of this course, the student will be able to complete a research assignment for any course from start to finish using the Information Search Process (ISP).

Learning Outcome with Explanation	ISP Step	Activity	Assessment
<b>Determine the Extent of Information Needed</b> <i>This directly correlates to the understanding the specifics of an assignment.</i>	Understand the Assignment	Give students guidelines for a research assignment	Students will have to answer questions about the assignment such as length (size and scope) of research paper, due date, topic restrictions, citation style requirement, and material permitted as sources
<b>Determine the Extent of Information Needed</b> <i>This directly correlates to choosing an appropriate topic.</i>  <b>Access the Needed Information Effectively and Efficiently</b> <i>This extends to the ability to effectively access the needed information on a topic.</i>	Select a Topic	Students review topic restrictions and pick a general topic to explore using topic databases and websites such as CQ Researcher, Points of View and Ted Talks	Topic will need to be approved. Approval will be based upon whether the selection criteria was followed
<b>Access the Needed Information Effectively and Efficiently</b> <i>This extends to the ability to narrow down a topic efficiently.</i>	Explore your Topic	Once topic is approved, students will narrow down the topic using additional databases and website	Students will need to narrow their topic to fit within the size and scope of the assignment as well as determine some key search terms to use when starting their research
<b>Use Information Effectively to Accomplish a Specific Purpose</b> <i>Information needs to be formulated into a specific purpose to be incorporated into a final assignment.</i>	Develop your Thesis or Specific Purpose Statement	Using the narrowed down topic students will develop a thesis statement	It will be determined if the thesis statement is narrow enough as well as incorporated an understanding of the assignment guidelines

**Course Learning Outcomes (continued):**

Learning Outcome with Explanation	ISP Step	Activity	Assessment
<b>Evaluate Information and its Sources Critically</b> <i>Information is evaluated as it is discovered in the research step. Sources must be critically evaluated prior to deciding whether to use the information.</i>	Research your Topic/ Track your Citations	Students will research their topic and find four sources. One eBook, one print book, one website and one journal article using library resources such as databases, eBooks, and other online/electronic resources. They will create a works cited page using the citation format required in the guidelines. Students will provide a one to two sentence explanation of their source choice.	Determine if the sources are appropriate and critically evaluated
<b>Understand the Economics, Legal and Social Issues Surrounding the Use of Information, and Access and Use of Information Ethically and Legally</b> <i>Tracking citations, creating proper works cited/reference pages and understanding the ramifications of plagiarism allows one to use information ethically and legally.</i>	Write your Paper	Write a one paragraph summary of the steps needed to complete the six step search process using their chosen topic	Evaluate whether the explanation encompassing an understanding of the six step information search process

**General Education Student Learning Outcomes (if applicable):**

Upon completion of this course, the student will be able to

- Use electronic search strategies to locate and access relevant Information as assessed by various assignments.
- Analyze and critically evaluate research findings as assessed by various exercises.
- Identify the legal and ethical issues relating to the use of information as assessed by demonstrating skill in citation and referencing of another person's work.
- Interpret and clearly present information in varied formats, including graphs, charts, and multimedia projects as assessed by assignments.
- Match information needs and search strategies to appropriate search tools as assessed by various activities.

## Course Outline:

- Understand the Assignment
  - Review and understand the professor's assignment *BEFORE* starting any other step
  - Pay specific attention to the time constraints, size and scope of the assignment
  - Know what the topic restrictions are as well as the required citation style
  - Understand what type of resources are required
    - Are you permitted to use websites and if so, are there restrictions
    - Do you need journal articles, do they need to be peer-reviewed?
    - Are print books or eBooks allowed?
    - Do you need a minimum number of resources?
    - Do you need primary or secondary research articles?
  - Establish an approach - what is the best way for *YOU* to work
- Select a Topic
  - **Deciding on a topic is one of the most difficult but important parts of your assignment. You will be spending a lot of time with the topic you choose; therefore, it is important that you have a topic that is fun and interesting.**
- Explore your Topic
  - **The purpose of this step is to take your broad topic and narrow it down to what you are specifically looking for so you can write your thesis/specific purpose statement. You want to look for subtopics or additional search terms in this step.**
- Develop your Thesis or Specific Purpose Statement
  - tells the reader the subject matter of the paper/speech
  - informs the reader what to expect from the paper/speech
  - an interpretation of a question or subject but not subject itself
  - is usually a single sentence near the beginning of your paper/speech
- Research your Topic/Track your Citations
  - **When gathering information for your assignment, you need to keep track of the information you find as well as the sources/citations as you go.**
- Write your Paper
  - Put all the information gathered in previous steps for you final research paper

**Course Activities:**

ISP Step	Activity	Assessment
<b>Understand the Assignment</b>	Give students guidelines for a research assignment	Students will have to answer questions about the assignment such as length (size and scope) of research paper, due date, topic restrictions, citation style requirement, and material permitted as sources
<b>Select a Topic</b>	Students review topic restrictions and pick a general topic to explore using topic databases and websites such as CQ Researcher, Points of View and TedTalks	Topic will need to be approved. Approval will be based upon whether the selection criteria was followed
<b>Explore your Topic</b>	Once topic is approved, students will narrow down the topic using additional databases and website	Students will need to narrow their topic to fit within the size and scope of the assignment as well as determine some key search terms to use when starting their research
<b>Develop your Thesis or Specific Purpose Statement</b>	Using the narrowed down topic students will develop a thesis statement	It will be determined if the thesis statement is narrow enough as well as incorporated an understanding of the assignment guidelines
<b>Research your Topic/ Track your Citations</b>	Students will research their topic and find four sources. One eBook, one print book, one website and one journal article using library resources such as databases, eBooks, and other online or electronic resources. They will create a works cited page using the citation format required in the guidelines. Students will provide a one to two sentence explanation of their source choice.	Determine if the sources are appropriate and critically evaluated
<b>Write your Paper</b>	Write a one paragraph summary of the steps needed to complete the six step search process using their chosen topic	Evaluate whether the explanation encompassing an understanding of the six step information search process

## Course Materials:

- Active library card
- Access to a Computer and Internet

### American Library Association's Standards, Performance Indicators, and Outcomes



#### Standard One

The information literate student determines the nature and extent of the information needed.

#### Performance Indicators:

1. The information literate student defines and articulates the need for information.  
*Outcomes Include:*
  - a. Confers with instructors and participates in class discussions, peer workgroups, and electronic discussions to identify a research topic, or other information need
  - b. Develops a thesis statement and formulates questions based on the information need
  - c. Explores general information sources to increase familiarity with the topic
  - d. Defines or modifies the information need to achieve a manageable focus
  - e. Identifies key concepts and terms that describe the information need
  - f. Recognizes that existing information can be combined with original thought, experimentation, and/or analysis to produce new information
2. The information literate student identifies a variety of types and formats of potential sources for information.  
*Outcomes Include:*
  - a. Knows how information is formally and informally produced, organized, and disseminated
  - b. Recognizes that knowledge can be organized into disciplines that influence the way information is accessed
  - c. Identifies the value and differences of potential resources in a variety of formats (e.g., multimedia, database, website, data set, audio/visual, book)
  - d. Identifies the purpose and audience of potential resources (e.g., popular vs. scholarly, current vs. historical)
  - e. Differentiates between primary and secondary sources, recognizing how their use and importance vary with each discipline
  - f. Realizes that information may need to be constructed with raw data from primary sources
3. The information literate student considers the costs and benefits of acquiring the needed information.  
*Outcomes Include:*
  - a. Determines the availability of needed information and makes decisions on broadening the information seeking process beyond local resources (e.g., interlibrary loan; using resources at other locations; obtaining images, videos, text, or sound)
  - b. Considers the feasibility of acquiring a new language or skill (e.g., foreign or discipline-based) in order to gather needed information and to understand its context
  - c. Defines a realistic overall plan and timeline to acquire the needed information
4. The information literate student reevaluates the nature and extent of the information need.  
*Outcomes Include:*
  - a. Reviews the initial information need to clarify, revise, or refine the question
  - b. Describes criteria used to make information decisions and choices



#### Standard Two

The information literate student accesses needed information effectively and efficiently.

#### Performance Indicators:

1. The information literate student selects the most appropriate investigative methods or information retrieval systems for accessing the needed information.  
*Outcomes Include:*
  - a. Identifies appropriate investigative methods (e.g., laboratory experiment, simulation, fieldwork)
  - b. Investigates benefits and applicability of various investigative methods
  - c. Investigates the scope, content, and organization of information retrieval systems
  - d. Selects efficient and effective approaches for accessing the information needed from the investigative method or information retrieval system
2. The information literate student constructs and implements effectively-designed search strategies.  
*Outcomes Include:*
  - a. Develops a research plan appropriate to the investigative method
  - b. Identifies keywords, synonyms and related terms for the information needed
  - c. Selects controlled vocabulary specific to the discipline or information retrieval source

- d. Constructs a search strategy using appropriate commands for the information retrieval system selected (e.g., Boolean operators, truncation, and proximity for search engines; internal organizers such as indexes for books)
  - e. Implements the search strategy in various information retrieval systems using different user interfaces and search engines, with different command languages, protocols, and search parameters
  - f. Implements the search using investigative protocols appropriate to the discipline
3. The information literate student retrieves information online or in person using a variety of methods.  
*Outcomes Include:*
- a. Uses various search systems to retrieve information in a variety of formats
  - b. Uses various classification schemes and other systems (e.g., call number systems or indexes) to locate information resources within the library or to identify specific sites for physical exploration
  - c. Uses specialized online or in person services available at the institution to retrieve information needed (e.g., interlibrary loan/document delivery, professional associations, institutional research offices, community resources, experts and practitioners)
  - d. Uses surveys, letters, interviews, and other forms of inquiry to retrieve primary information
4. The information literate student refines the search strategy if necessary.  
*Outcomes Include:*
- a. Assesses the quantity, quality, and relevance of the search results to determine whether alternative information retrieval systems or investigative methods should be utilized
  - b. Identifies gaps in the information retrieved and determines if the search strategy should be revised
  - c. Repeats the search using the revised strategy as necessary
5. The information literate student extracts, records, and manages the information and its sources.  
*Outcomes Include:*
- a. Selects among various technologies the most appropriate one for the task of extracting the needed information (e.g., copy/paste software functions, photocopier, scanner, audio/visual equipment, or exploratory instruments)
  - b. Creates a system for organizing the information
  - c. Differentiates between the types of sources cited and understands the elements and correct syntax of a citation for a wide range of resources
  - d. Records all pertinent citation information for future reference
  - e. Uses various technologies to manage the information selected and organized



### Standard Three

The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.

#### **Performance Indicators:**

- 1. The information literate student summarizes the main ideas to be extracted from the information gathered.  
*Outcomes Include:*
  - a. Reads the text and selects main ideas
  - b. Restates textual concepts in his/her own words and selects data accurately
  - c. Identifies verbatim material that can be then appropriately quoted
- 2. The information literate student articulates and applies initial criteria for evaluating both the information and its sources.  
*Outcomes Include:*
  - a. Examines and compares information from various sources in order to evaluate reliability, validity, accuracy, authority, timeliness, and point of view or bias
  - b. Analyzes the structure and logic of supporting arguments or methods
  - c. Recognizes prejudice, deception, or manipulation
  - d. Recognizes the cultural, physical, or other context within which the information was created and understands the impact of context on interpreting the information
- 3. The information literate student synthesizes main ideas to construct new concepts.  
*Outcomes Include:*
  - a. Recognizes interrelationships among concepts and combines them into potentially useful primary statements with supporting evidence
  - b. Extends initial synthesis, when possible, at a higher level of abstraction to construct new hypotheses that may require additional information
  - c. Utilizes computer and other technologies (e.g. spreadsheets, databases, multimedia, and audio or visual equipment) for studying the interaction of ideas and other phenomena
- 4. The information literate student compares new knowledge with prior knowledge to determine the value added, contradictions, or other unique characteristics of the information.  
*Outcomes Include:*
  - a. Determines whether information satisfies the research or other information need
  - b. Uses consciously selected criteria to determine whether the information contradicts or verifies information used from other sources

- c. Draws conclusions based upon information gathered
  - d. Tests theories with discipline-appropriate techniques (e.g., simulators, experiments)
  - e. Determines probable accuracy by questioning the source of the data, the limitations of the information gathering tools or strategies, and the reasonableness of the conclusions
  - f. Integrates new information with previous information or knowledge
  - g. Selects information that provides evidence for the topic
5. The information literate student determines whether the new knowledge has an impact on the individual's value system and takes steps to reconcile differences.
- Outcomes Include:*
- a. Investigates differing viewpoints encountered in the literature
  - b. Determines whether to incorporate or reject viewpoints encountered
6. The information literate student validates understanding and interpretation of the information through discourse with other individuals, subject-area experts, and/or practitioners.
- Outcomes Include:*
- a. Participates in classroom and other discussions
  - b. Participates in class-sponsored electronic communication forums designed to encourage discourse on the topic (e.g., email, bulletin boards, chat rooms)
  - c. Seeks expert opinion through a variety of mechanisms (e.g., interviews, email, listservs)
7. The information literate student determines whether the initial query should be revised.
- Outcomes Include:*
- a. Determines if original information need has been satisfied or if additional information is needed
  - b. Reviews search strategy and incorporates additional concepts as necessary
  - c. Reviews information retrieval sources used and expands to include others as needed



#### Standard Four

The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.

##### **Performance Indicators:**

1. The information literate student applies new and prior information to the planning and creation of a particular product or performance.
- Outcomes Include:*
- a. Organizes the content in a manner that supports the purposes and format of the product or performance (e.g. outlines, drafts, storyboards)
  - b. Articulates knowledge and skills transferred from prior experiences to planning and creating the product or performance
  - c. Integrates the new and prior information, including quotations and paraphrasings, in a manner that supports the purposes of the product or performance
2. Manipulates digital text, images, and data, as needed, transferring them from their original locations and formats to a new context
- The information literate student revises the development process for the product or performance.
- Outcomes Include:*
- a. Maintains a journal or log of activities related to the information seeking, evaluating, and communicating process
  - b. Reflects on past successes, failures, and alternative strategies
3. The information literate student communicates the product or performance effectively to others.
- Outcomes Include:*
- a. Chooses a communication medium and format that best supports the purposes of the product or performance and the intended audience
  - b. Uses a range of information technology applications in creating the product or performance
  - c. Incorporates principles of design and communication
  - d. Communicates clearly and with a style that supports the purposes of the intended audience



#### Standard Five

The information literate student understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.

##### **Performance Indicators:**

1. The information literate student understands many of the ethical, legal and socio-economic issues surrounding information and information technology.
- Outcomes Include:*
- a. Identifies and discusses issues related to privacy and security in both the print and electronic environments
  - b. Identifies and discusses issues related to free vs. fee-based access to information
  - c. Identifies and discusses issues related to censorship and freedom of speech
  - d. Demonstrates an understanding of intellectual property, copyright, and fair use of copyrighted material



2. The information literate student follows laws, regulations, institutional policies, and etiquette related to the access and use of information resources.

*Outcomes Include:*

- a. Participates in electronic discussions following accepted practices (e.g. "Netiquette")
- b. Uses approved passwords and other forms of ID for access to information resources
- c. Complies with institutional policies on access to information resources
- d. Preserves the integrity of information resources, equipment, systems and facilities
- e. Legally obtains, stores, and disseminates text, data, images, or sounds
- f. Demonstrates an understanding of what constitutes plagiarism and does not represent work attributable to others as his/her own
- g. Demonstrates an understanding of institutional policies related to human subjects research

3. The information literate student acknowledges the use of information sources in communicating the product or performance.

*Outcomes Include:*

- a. Selects an appropriate documentation style and uses it consistently to cite sources
- b. Posts permission granted notices, as needed, for copyrighted material