Using ICT Literacy Assessment to Evaluate and Enhance Information and Communication Technology Initiatives at The California Maritime Academy

California State University Information Competence Grant, 2006-7
Final Report

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I. Abstract

This report meets the objectives put forth in the 2006-2007 California State University Information Competence Grant Proposal, as submitted by The California Maritime Academy: “Using ICT Literacy Assessment to Evaluate and Enhance Information and Communication Technology Initiatives at The California Maritime Academy.” The deliverables of this year-long grant were the result of a collaborative effort between the Library’s Information Fluency Program, Communication Literacies Program, campus technology instructors and partnering faculty across the disciplines.

II. Goals & Objectives

The goals of this Information Competency Grant, as established in the initial project proposal, were to:

- Administer the ICT Literacy Assessment\(^1\) to The California Maritime Academy’s incoming freshmen and graduating senior populations as a means of:
  - Establishing a pre-test baseline for the class of 2010 (current freshmen)
  - Assessing current technical and information literacy levels in the class of 2007 (current seniors)

- Analyze pre-existing data gathered through campus iSkills Assessment administrations prior to the fall of 2007 and use it to:
  - Create new learning objectives in information competencies and communication literacies
  - Develop or adapt assignments used in freshman-level technology courses to encourage the development of information and communication technology literacy skills

- Analyze newly gathered data from 2006-2007 administrations of the iSkills Assessment at The California Maritime Academy and use the results to:
  - Determine the computing familiarity of the incoming freshmen population
  - Analyze the information and communication technology skills of our senior level population and incoming freshman population
  - Reexamine ongoing information and communication technology instructional efforts in light of existing senior-level skills.
  - Create and embed progressive assignments and exercises that build upon freshmen competencies.

III. Project Activities Timeline:

August 2006: Drake and Chisholm established common Information Competence and Communication Literacies Objectives\(^2\) based on the format and results of previous ICT Literacy Assessments. At this time, Drake and Chisholm also worked together to craft sample assignment rubrics demonstrating expectations of student performance related to each of the six core skill areas at the lower, mid, and upper-classmen levels.\(^3\)

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\(^1\) Now known as the iSkills Assessment.
\(^2\) Attachment a, Information Fluency and Communication Literacies Learning Objectives
\(^3\) Attachment b, Information and Communication Technology Assessment Rubric
September 2006: Drake met with COM 100 instructors, arranged test times for incoming freshmen, and proctored the resulting test sessions.

Drake created and embedded a brief computing familiarity survey into the iSkills Assessments delivered to incoming freshmen.4

Using the newly developed learning objectives and rubrics, Drake collaborated with COM 100 instructors to either update or create three assignments which focused on the development of students’ information and communication technology skills.5

Chisholm created two updated assignments for ENG 120 & supplemental materials.6

October 2006: Drake developed and taught an Internet Search module, with corresponding assignments, in all COM 100 and ENG 120 courses.

December 2006: Drake and Chisholm analyzed iSkills data related to the performance of incoming freshmen and reviewed the results of the computing familiarity survey that had been embedded in the iSkills pre-test.

Drake and Chisholm met to review the progress of the grant, compile updated assignments and materials, and discuss the effectiveness of fall semester program collaborations.

In response to initial iSkills data and perceived barriers to long-term project sustainability,7 the Library’s Information Fluency Program drafted an outline for a revised freshman-level computing course designed to focus on the development of fundamental information and communication technology competencies. This proposed course was named LIB 100: Information Fluency in the Digital World.8

January 2007: Drake and Chisholm administered the iSkills Assessment to seniors via existing capstone courses.

March 2007: A course proposal for LIB 100 was approved by the curriculum committee and was adopted by the Global Studies/Maritime Affairs and Engineering Technology programs for the 2007-2008 academic year.9

June 2007: Drake, Chisholm, and Jackson reviewed and analyzed all data from the 2006-2007 administrations and identified areas of instructional need related to students’ development of information and communication technology skills.

July 2007: Drake and Chisholm submit the final grant report and publish all related documentation online via the Library’s Information Fluency Program Web page.

August 2007: LIB 100 course begins.

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4 Attachment j, Results of the iSkills Pre-Survey, Fall Administration, 2006
5 Attachments c-g, copies of all original and revised COM 100 assignments developed by instructor Alberto Ramon and Information Fluency Librarian Mindy Drake.
6 Attachment g-i, copies of all new ENG 120 assignments developed by Dr. Julie Chisholm
7 Variations in the topics covered in each course by instructors, communication difficulties, a lack of enthusiasm for the project among some instructors, the high turnover rate of adjunct faculty and evolving syllabi made the process difficult.
8 Attachment l, LIB 100: Information Fluency in the Digital World, Course Description
9 At this time, the Marine Transportation program also submitted a request for the Curriculum Committee to approve this course as an alternative to the existing COM 100 course for their students. This change is expected to take effect in the fall semester of 2008.
Beyond: The *iSkills* Assessment is delivered to the freshman population on an annual basis through LIB 100 and to the senior population on a biennial basis via existing capstone courses.

Drake, Chisholm, and Jackson use data gathered from the 2006-7 *iSkills* administration to promote the development of progressive assignments focusing on the appropriation and retention of information and communication technology skills.

IV. **Deliverables**

The following required materials are attached in this document:

1. Information Fluency and Communication Literacy Learning Objectives
2. Rubric for assessing the development of information and communication technology skills within course assignments
3. Modified COM 100 & ENG 120 assignments and supplemental materials
4. Results of the freshman technology experience pre-survey embedded in the ICT in the fall semester of 2006
5. Syllabus and *iSkills*-influenced learning objectives of the newly developed LIB 100: Information Fluency in the Digital World course
7. A web page including the grant proposal, the activities undertaken, and the deliverables: [http://library.csum.edu/Information%20Fluency/grants1.htm](http://library.csum.edu/Information%20Fluency/grants1.htm)

V. **Collaborations & Resources**

As outlined in the grant proposal, the original structure of this project called for the integration of information and communication technology assignments within existing computing classes in the freshmen year. This project involved the collaboration of three distinct campus entities: the Information Fluency Program, the Communication Literacies Program, and campus technology instructors. To achieve the goals of the grant, information fluency and communication literacies representatives planned to liaise with computing technology instructors in order to design and integrate a series of assignments which applied significant information fluency, communication literacies and critical thinking components to technology-driven assignments. At the time of the grant proposal, this collaborative project was strongly endorsed by campus administration and faculty across disciplines.

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10 Attachment a, Information Fluency and Communication Literacies Learning Objectives
11 Attachment b, Information and Communication Technology Assessment Rubric
12 Attachments c-i, copies of all revised and newly created COM 100 and ENG 120 assignments
13 Attachment j, Results of the *iSkills* Pre-Survey, Fall Administration, 2006
14 Attachment l, LIB 100: Information Fluency in the Digital World, Course Description
15 Attachment k, Aggregate Task Performance Report
16 Attachment m, original grant proposal
In some cases, faculty partners were strongly committed to the concept of integrating aspects of information and communication technology instruction within existing coursework. These partnerships proved to be of great value, and even yielded a number of related projects that highlighted the importance of combined information and communication technology instruction. For instance, when reflecting on the process of updating three existing COM 100 assignments to include additional critical thinking elements, instructor Alberto Ramon of COM 100 noted:

I felt that the updated assignments offered a greater challenge to the students, so they enriched their learning experience. ICT Literacy skill integration was definitely an enhancement to my class. Students learned how to best present information, and were graded accordingly. I think they responded favorably to the updated assignments, compared to the previous semesters…I am convinced that COM 100 should be about presenting information using Office Applications, rather than just Office Applications.\(^\text{17}\)

This positive feedback supports the authors’ vision of future partnerships with faculty from all disciplines, in which new assignments focusing on the further development and retention of students’ information and communication technology skills will be developed and implemented.

However, not all collaborations related to the grant project were successful. While some faculty were true partners who embraced the concept of information and communication technology instruction, others did not seem to embrace the vision or import of the project, and were hesitant to take on the additional work of evaluating and updating assignments even after consistent encouragement. Likewise, it took a significant amount of time to explain the concept of information and communication technology literacy, and this, combined with the high turnover of faculty teaching freshmen-level computing courses meant that the long-term sustainability of the project would involve significant energy and attention. Even in situations where collaboration was strongly embraced by instructional faculty, the Information Fluency Librarian and the Communication Literacies Specialist, the new assignments were never an organic component of the original course design. An even greater effort would have to have been made in order to influence the nature of campus technology instruction and affect an overall pedagogical shift toward critical thinking and problem-based learning approaches.

At the end of the fall semester of 2006, these factors were determined to present significant barriers to the long-term sustainability of the project. It was subsequently determined through discussions of the

\(^{17}\) Alberto Ramon, personal communication, June 2007.
Information Fluency Librarian, Communications Literacy Specialist and faculty partners from across the disciplines that a full-term course related to information and communication technology, (with a focus on the development of information fluency skills), would provide an ideal platform for delivering consistent instruction to the greatest possible number of campus freshmen. In response to these discussions, the Library’s Information Fluency Program drafted an outline for a new freshman-level computing course named LIB 100: Information Fluency in the Digital World.

The ultimate design, content, and assessment plan of the LIB 100 class was influenced by iSkills data gathered through the fall 2006 administration, faculty discussions, and the newly developed Information and Communication Literacies Learning Objectives. In a sense, the development of this course was a direct result of collaboration occurring as a function of this information competence grant, and will encourage continued collaboration between campus Information Fluency and Communication Literacy programs as the course evolves.

In the spring semester of 2007, LIB 100: Information Fluency in the Digital World was submitted to the Curriculum Committee for review. Due to the strong endorsement of faculty across disciplines, LIB 100 was approved by the committee to replace COM 100 for all students in the Global Studies and Maritime Affairs and Engineering Technology departments for the 2007-8 school years.18

VI. ICT Literacy Analysis:

During the course of the grant, the iSkills Literacy Assessment was used in four distinct ways:

1. Guiding the development of campus-wide Information Competence and Communication Literacy Learning Objectives 19 and subsequently encouraging the development of embedded technology assignments which incorporate these objectives into existing curricula;20

2. Gathering baseline data on the information and communication technology competencies of The California Maritime Academy’s incoming freshmen population;21

3. Determining the information and communication technology skill sets of Cal Maritime’s current senior population;22 and

4. As a catalyst for innovation in the design and instruction of information competence and technology skill sets among The California Maritime Academy’s freshman population.

a. Background

Prior to administering the iSkills Assessment in the fall semester of 2006, The California Maritime Academy Library administered the test to smaller student groups in the spring of 2005 and 2006. Although the population surveyed in these assessments was too small to be representative of campus-wide information and communication technology skill performance,23 the results of these initial administrations influenced the design of the current grant proposal.

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18 At this time, the Marine Transportation program also submitted a request for the Curriculum Committee to approve LIB 100 as alternative to the existing COM 100 course for their students. This change is expected to take effect in the fall semester of 2008.
19 Attachment a, Information Fluency and Communication Literacies Learning Objectives
20 Attachments c-i
21 At the time of testing, this population had not received any direct information fluency, technology, or communications instruction through this institution (see page 10).
22 This population represents freshmen who matriculated before the current information fluency program was implemented at Cal Maritime; their scores are meant to serve as a baseline against which to measure future iSkills Assessments and programmatic developments (see page 10).
23 Approximately 38 Cal Maritime students took the iSkills assessment during the 2005 beta testing, and fewer than 50 students took the iSkills assessment in the spring semester of 2006. The majority of these students came from two courses within the Global Studies and Maritime Affairs major, during the students’ sophomore and junior years.
Information related to the design of iSkills test tasks and initial student performance data gathered from the 2005-early 2006 administrations were used to help persuade campus coordinators to administer the exam on a larger scale in the following semester. Program coordinators and faculty in all of The California Maritime Academy academic departments were approached with a description of the purpose, scope and methodology of the iSkills exam. Armed with this information, department representatives were asked to endorse the grant proposal and to support the administration of the iSkills assessment to their incoming freshman and senior-level populations.

Once faculty endorsement was obtained, an analysis of student performance on iSkills tasks used in the 2005-early 2006 administrations was used to influence the development of new Information Competence and Communication Literacy Learning Objectives for freshman-level technology assignments. Additionally, Information Fluency Librarian Mindy Drake and Communications Literacies Coordinator Julie Chisholm worked together to create a general rubric to act as a guide for faculty when creating new technology assignments focusing on information competence.

In the fall of 2006, faculty used these newly developed learning objectives and assessment guidelines to revise assignments in COM 100 and ENG 120. In the COM 100 course, this resulted in two assignments using Microsoft PowerPoint, Access and Word, as well as an assignment utilizing online search mechanics. In ENG 120, this resulted in three assignments designed to help freshman mechanical engineering students better understand the discipline-specific thinking and writing requirements of their field.

b. Methodology, Fall 2006

In the fall semester of 2006, the advanced version of iSkills was administered to all incoming freshmen enrolled in COM 100: Introduction to Computing and ENG 120: Engineering Communications. Testing was administered during the first week of the semester, prior to the delivery of any college-level computing or technology instruction. This was done deliberately to ensure a clean baseline of incoming freshmen information competence skills. The advanced version of the exam was chosen rather than the core version for this population in order to compare the skills of incoming freshmen at Cal Maritime to those of senior-level students within the institution.

In conjunction with this round of testing, students were given an additional ten-question survey designed by the Information Fluency Librarian and Communication Literacy Coordinator to assess student perception of the technology skills brought to the college environment. This survey was embedded in the iSkills Assessment’s existing demographic profile survey which students are required to complete before beginning their test sessions. An account of questions presented in this pre-survey and a breakdown of student responses is included in the deliverables of this report.

It should be noted that the pre-survey of computing familiarity embedded in the iSkills Assessment administered to all freshmen is the only gauge of their previous technology instruction experience. Although the class standing of all of the test-takers in this population was cross-referenced through Student Records documentation to verify freshman status, some of these students could have transferred from other institutions where they were exposed to technology or information fluency instruction. Alternately, some students in this population may never have taken a formal computing class. The purpose of administering the iSkills Assessment to this group was simply to establish a baseline of incoming iSkills.

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24 Attachment a, Information Fluency and Communication Literacies Learning Objectives
25 Attachment b, Information and Communication Technology Assessment Rubric
26 Attachments e-f, original and revised COM 100 PowerPoint assignments, created by instructor Alberto Ramon and Information Fluency Librarian Mindy Drake
27 Attachments c-g, original and revised COM 100 Word and Access assignments, created by instructor Alberto Ramon and Information Fluency Librarian Mindy Drake
28 Attachment g, original COM 100 and ENG 120 Web Search assignment, created by Information Fluency Librarian Mindy Drake
29 Attachments g-i, new ENG 120 assignments created by Dr. Julie Chisholm
30 Attachment j, Results of the iSkills Pre-Survey, Fall Administration, 2006
Two specific courses (COM 100 and ENG 120) were selected as venues for iSkills administration. These courses were chosen because of their focus on freshmen-level computing and technology competencies, and because both were required courses for graduation at the time of the initial iSkills administration. COM 100 has been a required course for all students in the Business Administration, Global Studies and Maritime Affairs, Engineering Technology and Marine Transportation departments. Likewise, ENG 120 is currently a required course for all students in the department of Mechanical Engineering.

Approximately 151 incoming freshmen were tested during this administration. However, three test takers were excluded from the final data pool due to standard exclusion criteria. Additionally, eleven test results were excluded because the test takers were not “true” freshmen.

The final group of 137 test takers represented approximately 57% of Cal Maritime’s incoming freshman population. However, it should be noted that due to course scheduling practices, most Engineering Technology majors take COM 100 in their second semester and were not included in the population. Consequently, the results of this testing administration are not representative for this group.

c. Methodology, Spring 2007

At the beginning of the spring semester of 2007, the advanced version of iSkills was administered to approximately 80 seniors. For the purpose of this study, the class standing of senior was assigned to all students eligible to graduate in the summer or fall of 2007. It should also be noted that the current curriculum-integrated system of information fluency instruction delivered to all students at The California Maritime Academy has only been operating consistently for two years. Therefore, seniors tested in this group may not have been exposed (in a formal classroom setting) to many of the basic information fluency or technology skills that incoming freshmen routinely learn. This critical difference may be reflected in the final analysis of iSkills performance among this population.

In order to administer iSkills to the largest possible group of seniors within each discipline of study, it was decided that the test would be embedded in senior-level discipline-specific courses. The courses selected were NAU 400: Advanced Maritime Topics; TRA 405: Import and Export Regulations; and two sections of ENG 470: Engineering Management. These courses were identified by each of their corresponding academic department as being required of all senior-level students.

Of the approximately 80 seniors who took iSkills in the spring of 2007, the results of 15 test takers were excluded from the final analysis of results because it was determined that they had not yet achieved senior-level class standing. Additionally, the results of 16 test takers were excluded because they had not met the predefined criterion established by ETS. The high number of excluded senior-level test takers was due in a large part to technical difficulties experienced during test sessions, which will be discussed below. The final group of 49 seniors represented approximately 32% of the senior-level population.

d. Challenges

Administration of iSkills among both the incoming freshmen and senior-level populations was conducted during class sessions. This strategy was adopted because previous experience in populating the iSkills on a volunteer basis during the 2005-early 2006 administrations suggested an unwillingness of students to

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31 For purposes of validity, it was determined that test results from these administrations would not be used if the test taker a) spent fewer than ten minutes on either section of the exam, or b) completed fewer than four tasks in the course of the exam. This exclusion criterion was developed by the Educational Testing Service (ETS), which developed iSkills.
32 When test taker IDs were cross-referenced with Student Records documentation, these eleven test takers were determined to have class standings of sophomore or higher. For the purposes of establishing a baseline of incoming information and communication technology skills, these results were deemed to be unrepresentative.
33 Class standing was cross-referenced with Student Records documentation.
participate in the standardized assessment without costly incentives or rewards. It was also hypothesized that administering the exam in discipline-specific senior-level coursework for each of the majors would yield a more representative group.

However, because the length of the advanced iSkills instrument is approximately 75 minutes (with a time-consuming demographic pre-survey) and the classes in which the iSkills was administered were only 45 minutes long, it was necessary to split the assessment into two consecutive class sessions. Students were asked to complete the pre-survey and the first section of the exam during the first class section. Permission was not granted for beginning the second session until the subsequent class.

This method of administration presented some noteworthy challenges. The first was student attendance. Although participation in the iSkills assessment was made a contributing factor in most students’ class participation grade, a number of students attended only the first half of the testing sessions. Because most instructors could not dedicate more than two class sessions to the testing process over the course of the semester, this presented an added difficulty. Students had to be contacted on an individual basis in order to finish the exam in a proctored lab environment on their own time, and there was relatively low consequence attached to not completing the exam. Approximately 16 seniors who began the exam never finished, significantly affecting the anticipated sample population.

The second challenge presented by in-class administration strategy was that of limitations related to campus technology and lab facilities. There are only two technology lab facilities on campus where iSkills could be administered, each housing approximately 25 computers. During peak classroom hours, these labs are frequently reserved by faculty for the use of their classes. Additionally, because these are high-use public-access machines, it was challenging to arrange a testing session in which all machines were functioning properly.

These factors lead to difficulties in scheduling the administration of some iSkills assessments during pre-existing senior-level class times. The greatest difficulty was associated with Marine Transportation majors. The upper-level course that was targeted to capture seniors among this population (NAU 400: Advanced Maritime Topics) was split into two sessions, one of which housed more than 30 students. The smaller session, which met in the early morning, was able to take the iSkills assessment during the assigned class schedule. However, a persistent technical malfunction during the second section of the exam caused more than half of the test-takers screens to freeze repeatedly, forcing test takers to terminate the exam prematurely. The problem was immediately reported to ETS but could not be resolved until after the testing session had elapsed. Consequently, these students only finished their exams if they volunteered to return and complete the test on their own time at a later date.

The second, larger group of Marine Transportation seniors was unable to test during its pre-determined class session. The class instructor had identified a limited window of time during the semester in which the course could afford to dedicate two consecutive class sessions to the iSkills assessment, and during this time period both labs were booked by faculty. In order to capture Marine Transportation seniors in this larger section of NAU 400, the Library contacted each student independently and offered amazon.com gift cards as incentives, but response was still very low. Consequently, while faculty instructing senior-level Marine Transportation students strongly endorsed the iSkills testing project, only twelve Marine Transportation students were tested during the spring 2007 administration.

**e. Results**

All students who took the advanced version of the iSkills Assessment were assigned a cumulative score ranging from 400 to 700 points. Although, at the time of this report, no “cut number” has been established by the Educational Testing Service to indicate the relative value of a particular score, the performance of local populations can be directly compared to that of all students who took the advanced version of the iSkills assessment during early 2006 administrations. This provides some gauge by which to assess the relative performance of Cal Maritime students.

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In previous administrations of the ICT, gift certificates were awarded and an Ipod was raffled off as incentives.
It should be noted that the average cumulative scores of Cal Maritime students were neither significantly higher nor lower than the national mean. The California Maritime Academy’s incoming freshmen population achieved a mean cumulative score of 554. Approximately 50% of all national test takers scored above this level, and 50% below. Comparatively, the mean score of the senior population was only 7 points higher at 561 points. This indicates approximately 42% of national test takers scored above this level and 58% below.

Additionally, the average score of incoming freshmen is reflective of a population that had not yet received direct information fluency, technology, or communications instruction through this institution. These students were tested solely to establish a baseline of incoming competencies in these areas. Likewise, the senior population tested for the purposes of this grant had been freshmen who matriculated before the current information fluency program was implemented at Cal Maritime; their scores also are only meant to serve as a baseline for future iSkills assessment.

A visual representation of the iSkills performance of The California Maritime Academy’s incoming freshmen and senior populations during the 2006-2007 academic year can be found in the deliverables of this report. In this section, we will provide an analysis of student performance by skill area with a list of related action items for the future.

i. Define

The “Define” skill area addresses behaviors related to formulating a research statement and defining the parameters of a research project. This area also involves the ability to create and structure new research tasks as they relate to a set of predetermined criteria.

To demonstrate the development of “Define” skills, test takers were given two tasks. The first task asked students to effectively narrow the scope of a broad research project by selecting a question that would clarify the information required, selecting an appropriate database variable that would elicit useful information, and ultimately selecting the best research question around which to base their search efforts.

Approximately 55% of seniors and 59% of freshmen were able to select a question that would clarify the focus of the broader research project with maximum efficiency. Student performance for both groups dropped when it came to selecting an appropriate database variable, with only 35% of seniors and 44% of incoming freshmen selecting the best variables for the purpose of locating information about the project. However, the greatest discrepancy between the two populations in this task emerged when test takers attempted to identify the best research question for the project at hand. Although 61% of seniors were able to do so with maximum efficiency, the percentage dropped to 42% among incoming freshmen.

To further demonstrate “Define” skills, test takers were next asked to consider a number of pre-existing project criteria when choosing an appropriate research topic. Although seniors performed significantly higher in this task than incoming freshmen, the majority of both groups struggled to do so with maximum efficiency. Approximately 53% of seniors were able to select a research topic that fulfilled all of the criteria given and only 34% of seniors were then able to correctly report the extent of criteria fulfilled by the topic they ultimately selected. Of the incoming freshmen population, approximately 7% were able to select a research topic that fulfilled all of the criteria given and just 10% were able to correctly report the criteria fulfilled by the topic they ultimately selected.

ii. Access

33 The national mean represents 1,702 students, all of whom took the advanced version of iSkills during the early 2006 administrations, as indicated in More About ETS ICT Literacy Scores, 2006. 34 This information was taken from the Educational Testing Service’s More about ETS ICT Literacy Scores, 2006. 35 Attachment k, Aggregated Task Performance Report
The “Access” skill area addresses the ability of test takers to find and retrieve information from a variety of sources, including web pages, databases, discussion groups, email, or print media. This area also measures the ability of test takers to efficiently browse different types of resources, in order to locate and obtain relevant information and apply efficient search mechanics within the scope of a predefined research project.

To demonstrate the development of “Access” skills, test takers were given three tasks. The first required students to install a video player and successfully play a file without selecting unnecessary links, and to then save the file to a location indicated on the computer’s hard drive. Students performed quite well in this area, with 89% of incoming freshmen and 94% of seniors able to install the video player and successfully play the file. However, performance of both groups dropped significantly with regard to efficiency: just 51% of incoming freshmen and 57% of seniors were able to perform these tasks without selecting unnecessary links in the process. Approximately 47% of incoming freshmen and 67% of seniors were able to later save the file to a specified folder on the computer hard drive.

The second task in the “Access” skill area required test takers to search for information related to a research project via an online search engine and an article database. The majority of students from both populations displayed a low level of competency related to online search mechanics. Approximately 19% of incoming freshmen and 33% of seniors employed precise and useful search terms in their web searches, and just 39% of incoming freshmen and 35% of seniors did so in their database searches. As might be expected, only 28% of incoming freshmen and 39% of seniors made use of proper search delimiters in their database searches. Low performance in this area is a cause for concern among both populations, as poor search mechanics will necessarily lead to the acquisition of less useful information resources.

The third and final task required that students search a store’s database in order to locate information required by a customer. As part of this process, students were asked to select an appropriate database for searching, select an appropriate category within the database in which to search for information, choose an effective search expression within the category selected, and to select all items relevant to the customer.

Approximately 88% of incoming freshmen and 86% of seniors were able to select the correct store database on their first web search. However, the performance of both groups fell dramatically when it came to effectively and efficiently searching the system selected. Approximately 75% of incoming freshmen and 78% of seniors were unable to select the best category for searching within the database. Although 53% of incoming freshmen and 65% of seniors were able to choose the best search expression to search within the database category selected, the majority of both populations struggled to select appropriate items to meet the customer’s needs. Approximately 40% of both populations were able to select all of the appropriate items for the customer and at least 60% of both populations included inappropriate items in their selections.

iii. Evaluate

The “Evaluate” skill area addresses the ability of test takers to determine the usefulness of information for a specific purpose, critique the relevancy of information, discern authority, timeliness, and bias of information resources, and determine the extent of information that is needed for a specific purpose in order to gauge completeness of a task.

To demonstrate the development of “Evaluate” skills, test takers were given three tasks. The first task required students to judge the usefulness of web sites returned in a search for information on a given research topic. In order to complete this task, test takers had to select an appropriate website and evaluate it accurately in terms of authority, bias, and currency.
Although only 45% of incoming freshmen and 51% of seniors were able to select the best web site though which to locate information on a prescribed research topic, the majority of students fared generally well in evaluating the selected site. Approximately 59% of both incoming freshmen and senior populations judged the site correctly with regard to authority, and approximately 83% of both groups judged the site correctly with regard to currency. The lowest performance in this task was related to bias, with just 29% of incoming freshmen and 38% of seniors judging correctly in this area. Although student performance in determining the bias of a web site does appear to have improved among the senior population, the performance of both groups is still quite low.

The second task required test takers to judge the usefulness of web pages and article abstracts as related to a specific research topic. Based upon this prescribed topic, approximately 90% of freshmen and 83% of seniors visited websites that were unlikely to yield useful information. Only 29% of incoming freshmen and 39% of seniors were able to select the best web page to visit the first time it was returned in their searches, and just 31% of incoming freshmen and 47% of seniors ultimately bookmarked the best web page for the assignments. Although performance in this area was low for both populations, the seniors do appear to have a significant advantage over the freshmen population. However, the majority of both groups performed poorly when it came evaluating article abstracts from a database, with just 15% of incoming freshmen and 16% of seniors selecting the two best abstract for the needs of the prescribed research topic.

The third and final task required that students evaluate and rank flyers according to their fulfillment of a particular set of criteria. Approximately 41% of incoming freshmen and 35% of seniors were able to correctly rate the flyers with regard to the criteria presented, and a similar 41% of freshmen and 45% of seniors were able to fill out the justification form explaining their choice of flyer correctly. The results of this task mirror those of the second “Define” task, in which students are asked to use outside information or criteria in order to choose a new research topic. Incorporating outside information into the evaluation of an existing project or performance appears to significantly challenge the majority of both populations, with seniors displaying a slight advantage.

iv. Manage

This skill area assesses behaviors related to test takers’ ability to apply existing organizational schemes to digital information. Tasks in this area might include categorizing stores of information such as e-mails into appropriate folders based upon predefined criteria, arranging personnel information into an organizational chart or sorting clusters of related information into a new organizational scheme.

To demonstrate the development of “Manage” skills, test takers were given two tasks. The first task required that students organize a number of digital files into appropriate folders on a computer’s hard drive. Performance on this critical thinking task was low for the majority of both populations, with approximately 17% of incoming freshmen and 20% of seniors being able to move all of the files provided into proper folders. Similarly, just 17% of incoming freshmen and 16% of seniors were able to correctly delete all unnecessary files without deleting necessary files.

The second task required that test takers place a number of e-mails into correct folders and identify those requiring later action, based upon a set of established criteria. Performance on this task was low as well, with approximately 23% of incoming freshmen and 25% of seniors able to move all e-mails into proper folders based on prescribed criteria, and just 34% of incoming freshmen and 33% of seniors being able to properly handle e-mails requiring later action.
This skill area addresses the ability of test takers to interpret and represent print and digital information. Tasks in this area deal with proficiency in using technology to synthesize, summarize, compare and contrast information obtained from multiple resources.

To demonstrate the development of “Integrate” skills, test takers were given two tasks. The first task asked students to combine several electronic suggestions in order to plan a scientific experiment. To accomplish this task, students were asked to first assign an organizational structure to the experiment, then distinguish the steps and results of the experiment, identify the conclusion, and accurately cite the source of the experiment.

Approximately 50% of incoming freshmen and 39% of seniors were able to organize the experiment correctly. Similarly, 53% of incoming freshmen and 41% of seniors correctly distinguished the steps and results of the experiment, and an even closer margin of 49% of incoming freshmen and 47% of seniors correctly identified the conclusion of the experiment. Finally, 71% of incoming freshmen and 51% of seniors were able to correctly cite the source of the experiment. Though the results of incoming freshmen were slightly higher than those of seniors, better than half of both populations displayed difficulty in completing most of these tasks correctly.

The second task required that test takers compare several written reviews in order to identify best products. In order to complete this task, students were asked to create table rows that represented their needs effectively, fill in table cells accurately, and read the table in order to interpret results correctly.

Approximately 26% of freshmen and 37% of seniors were able to create table rows that represented the needs of the project effectively. This low percentage from both populations may indicate a lack of familiarity with arranging outside information through the use of tables. Similarly, 47% of incoming freshmen and 55% of seniors were able to accurately fill the cells of the newly created table. However, approximately 88% of incoming freshmen and 80% of seniors were able to accurately interpret the final table in order to rank the files correctly.

vi. Create

This skill area addresses behaviors related to test takers’ ability to produce information by adapting, applying, designing or inventing information via digital technologies.

To demonstrate the development of “Create” skills, test takers were given two tasks. The first task asked students to choose material in order to create a web page. To accomplish this task, test takers had to first select the necessary and desirable content for the web page, and then organize the content logically and effectively while observing ethical or legal considerations. The majority of students from both populations performed well in this area, with approximately 55% of incoming freshmen and 74% of seniors selecting all necessary and desirable content for the new web page, and approximately 60% of both populations organizing the new web page logically and effectively. Approximately 85% of both populations were also able to observe all related ethical and legal considerations to the development of the new web page.

The second task required test takers to create a graph displaying recent movie trends. To accomplish this task, students had to first select the content for the graph, organize the layout of the graph logically and effectively, create the graph efficiently, and draw a correct conclusion based upon the completed graph.

The majority of students from both populations performed much lower on this task, with seniors displaying a slightly higher level of competency. This may be due to a lack of exposure among both populations to the creation of graph items. Approximately 75% of incoming freshmen and 65% of seniors failed to select all of the necessary content for the graph. Similarly, approximately 79% of incoming freshmen and 73% of seniors failed to organize the graph in a logical and
effective capacity, while just 15% of incoming freshmen and 25% of seniors were able to create the graph very efficiently. Approximately 40% or less of both populations were able to draw a correct conclusion from the graphs created.

vii. Communicate

This skill area addresses the ability of test takers to use digital technologies in order to communicate information appropriately for specific audiences, venues and applications. This may include such tasks as preparing a document to make it more useful to a specific population, designing advertisements of flyers that conform to predetermined posting criteria, or even re-working an existing presentation to suit the needs of an alternate venue.

To demonstrate the development of “Communicate” skills, test takers were given two tasks. The first task required students to make a slide arguing a position on telecommuting, based on information presented in an email. In order to accomplish this task, test takers were asked to include all key points necessary for effective communication from the information provided, remove all points irrelevant to the audience’s needs, and ultimately choose the most effective title for the presentation.

The majority of both populations struggled when it came to selecting appropriate information for inclusion on the new slide. Approximately 27% of freshmen and 18% of seniors were able to include all key points necessary for effective communication, while just 18% of freshmen and 16% of seniors were able to omit irrelevant information. Less than 50% of either population were able to categorize the data by selecting the most effective title for the presentation.

The second task required test takers to select the best way to advertise an event for the users of an electronic mailing list. To accomplish this task, test takers were asked to correctly analyze the key details of all of the advertisements provided, correctly apply the mailing list policy to the advertisements, choose advertising content that was appropriate to a specific audience, and ultimately select the best advertisement to be included in the mailing list.

Again, as has been indicated in previous tasks, the majority of both populations displayed difficulty in applying outside criteria to a new information project. Approximately 13% of incoming freshmen and 27% of seniors correctly analyzed the details of the advertisements, and just 34% of freshmen and 33% of seniors were able to correctly apply the pre-existing mailing list policy to the advertisements.

The senior population appears to have performed significantly better than incoming freshmen when focusing the nature of communication to a particular audience. Approximately 69% of seniors and 56% of incoming freshmen were able to select appropriate advertising content for the population indicated, and 65% of seniors were able to select suitable language and tone for the same population, as compared to 50% of incoming freshmen. When it came to ultimately selecting the best advertisement for the mailing list, 59% of seniors were able to do so correctly, as compared to just 41% of incoming freshmen.

f. Conclusions

Based on student performance in each of the seven skill areas, Drake and Chisholm have identified specific tasks that appeared most challenging to Cal Maritime students:

1. Clarifying the nature and extent of a research project.
2. Efficiently applying search mechanics in digital environments.
3. Evaluating digital resources in relation to bias and usefulness.
5. Integrating pre-existing criteria into the development of a new project or definition of a particular information need.
6. Integrating and synthesizing information obtained from multiple locations.
7. Organizing and interpreting information in visual displays (e.g. graphs and charts).
8. Determining the relevance of information to be included within an effective communication document.

Having observed evidence of these specific areas of instructional need, the Information Fluency Librarian and Communication Literacies Coordinator now seek to improve cumulative senior performance by 20% in the class of 2011. This is an ambitious goal which will require the continued commitment and support of campus faculty and administration. **Results of the current testing administration of the iSkills assessment will be used to advocate for this much-needed collaboration.**

In order to meet this goal, the Information Fluency Program and the Communication Literacies Group will continue to work closely with faculty across the disciplines to create progressive technology assignments which build upon current information and communication technology instruction. Special attention will be paid to the development and retention of the above mentioned skills when designing these new assignments. These new assignments should focus on three distinct qualities:

1. They should involve problem-based scenarios which mimic real-world tasks and encourage students’ development of critical thinking skills;
2. Technology should not be taught “for technology’s sake.” Revised assignments should incorporate the use of technology as a means to aid students in the process of accessing, organizing, evaluating, and presenting information; and
3. They should require students to independently locate and access needed information, critically evaluate information gathered, and/or creatively use information to meet the needs of predefined project.

Drake and Chisholm anticipate that in conjunction with exposure to these new information and communication technology assignments, two factors will contribute to a significant improvement in iSkills performance among this population: first, the class of 2011 will have had the benefit of participating, since its freshman year, in the current curriculum-integrated Information Fluency Program and existing communication literacy instruction. Second, the majority of students in the class of 2011 will have been exposed to fundamental information communication technology skills through LIB 100, as freshmen. It is hoped that participation in LIB 100 will provide a stronger foundation of critical thinking, communication technology, and information fluency instruction.

**VII. Grant Project Assessment**

Three forms of assessment were carried out in conjunction with this grant project during the 2006-7 academic year. The first was the use of the iSkills assessment, which was administered to approximately 231 California Maritime Academy students. The second was a seven-question pre-survey, embedded within the iSkills assessment, with the goal of determining students’ perception of their incoming computing competencies. The third involved informal assessment of students and faculty engaged in the
revision or use of information and communication technology assignments embedded within freshmen coursework.

As a result of this grant, the following assessment activities will be implemented in the future, as a means of encouraging project sustainability and growth:

1. Requiring all students in the LIB 100 course to complete an iSkills assessment within the first two weeks of class. This practice will provide a consistent method for assessing the evolving baseline of information and communication technology skills of the incoming freshmen population. Although this method will only yield data representative of the Global Studies and Maritime Affairs and Engineering Technology majors in the 2007-8 academic year, it is anticipated to become increasingly representative as additional majors adopt the LIB 100 course in the future. Students in alternate freshman-level computing courses with embedded information fluency components, such as ENG 120, will be given the iSkills assessment on a biennial basis.

2. Administering the iSkills assessment to all seniors on a biennial basis, as indicated in the original grant proposal. The next iSkills administration will be given to all seniors in the class of 2009. This assessment should provide insight into a population that has been exposed to The California Maritime Academy’s current curriculum-integrated information fluency program, communications literacy instruction and any updated technology assignments which are created for upper-classmen as a result of this grant.

3. Embedding the pre-survey of computing familiarity designed by Drake into all future freshman-level iSkills administrations and use the results of this tool to assess the evolving format of the LIB 100 course.

4. Developing and implementing additional formalized qualitative assessments throughout the semester with regard to faculty collaborations. This will include surveys of student satisfaction related to information and communication technology assignments and interviews related to faculty perceptions.

VII. Campus Sustainability and Applicability within the CSU:

Sustainability

As the fall semester of 2006 ended and preliminary iSkills data related to incoming freshmen was reviewed, Drake and Chisholm predicted that long-term sustainability of the project as originally outlined appeared unlikely. This prediction was the result of inconsistencies related to collaborating with faculty and embedding new assignments into an existing course structure. However, due to the development of the new LIB 100 course, which will be taught by campus information fluency librarians, the likelihood of project sustainability is now very high. It is anticipated that all students in the Marine Transportation program will also be taking this course as of the 2008-9 academic year, meaning that approximately 70% of all The California Maritime Academy students will be consistently introduced to fundamental information and communication technology literacy skills through a full-term course within the next two years. The endorsement of this course and the subsequent recognition among faculty of the need for information and communication technology skill instruction also indicates a high commitment to update and revise existing upper-class assignments and coursework accordingly.

Applicability

40 See “Collaborations & Resources” in section V for greater detail.

41 This figure is based upon data obtained from The California Maritime Academy Student Records Office’s Enrollment Report by Class: 2006-2010.
The California Maritime Academy’s use of the iSkills Assessment as a guide for the development of new information and communication technology assignments is highly applicable to other institutions within the CSU who seek to revise the nature of technology instruction on their campuses. The creation of hybrid learning objectives which combine the related interests of multiple campus programs and detailed rubrics which aide faculty collaborators in the design and assessment of new assignments may be of universal value.

Although the design of the new LIB 100: Information Fluency in the Digital World is unique among CSU campuses, this course format may open the door for other campuses seeking to promote a pedagogical shift away from the instruction of technology for “technology’s sake” and toward the instruction of technology in the context of real-world problem-solving and critical thinking skills.42

VIII. Acknowledgements

iSkills administration on The California Maritime Academy campus would not have been possible without the support of the Information Technology Department, who prepared the computers in the technology labs to administer the assessment, and provided timely assistance with technical difficulties.

The support of campus administration has been invaluable in the process of encouraging collaborative partnerships among faculty across the disciplines: specifically, the Science and Mathematics Department and the departments of Global Studies and Maritime Affairs and Engineering Technology.

42 See Attachment 1, LIB 100: Information Fluency in the Digital World, Course Description for related learning outcomes and objectives.
1. The successful student will be able to **DEFINE** (DETERMINE) the nature and extent of an information need:
   - Acknowledge and incorporate predefined criteria in order to shape the scope of a research project
   - Independently determine the types of information (how much, from where) that will best suit the needs of a specific project
   - Select technology appropriate to the requirements of the project
   - Assess the ultimate completeness of the project

2. The successful student will be able to **ACCESS** the needed information effectively and efficiently:
   - Independently locate information sources appropriate to a specific project
   - Effectively and efficiently retrieve and store data from a variety of sources including web portals, web sites, databases, digital systems and print resources

3. The successful student will be able to **EVALUATE** the information and its sources critically and incorporate selected information into his or her knowledge base and value system:
   - Evaluate print and digital resources accurately with regard to authority, bias, currency, and relevance to the project

4. The successful student will be able to effectively **USE** (MANAGE/INTEGRATE/CREATE) information individually or as a member of a group to accomplish a specific purpose:
   - Arrange, manipulate and store print and digital materials in manner appropriate to the requirements of a specific project
   - Organize data gathered in a consistent and logical scheme which allows for ease of access
   - Work effectively to manage and integrate data as individuals or as members of a group
   - Accurately synthesize information gathered from multiple sources
   - Create presentation documents in a manner appropriate to clearly and effectively sharing information gathered

5. Students will be able to **COMMUNICATE** information effectively with regard to a variety of technological media and social contexts.
   - Understand some of the features and processes of discourse communities within their fields of study
   - Specify and adapt to the constraints of specific rhetorical situations, including audiences, purposes, and uses
   - Develop strategies for accommodating multiple audiences in one document and for accommodating both technical and lay audiences
   - Learn conventions for common professional documents such as correspondence, presentations, proposals, and graphics
   - Refine writing/oral communications for more strategic clarity, concision, coherence, cohesion, and emphasis

6. Student will be able to **UNDERSTAND** many of the economic, social, and legal issues surrounding the use of information, and to access and use information ethically and legally
   - Demonstrate and intellectual understanding of intellectual property, copyright, and fair use of materials
   - Consistently acknowledge the use of information sources in communicating a product or performance

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1 These objectives were developed using the following pre-established standards and guidelines:
   - The Association of College and Research Libraries’ Information Literacy Competency Standards for Higher Education
   - The Educational Testing Service’s [iSkills Assessment](https://www.ets.org/s/ic/iskills/): About DEFINE/ACCESS, About MANAGE/INTEGRATE; About CREATE/COMMUNICATE; and About EVALUATE cognitive assessment guidelines
   - Learning Objectives of the California Maritime Academy Communications Literacy Group
- Indicate recognition of issues related to privacy and security in print and digital environments
- Indicate recognition of issues related to censorship and free speech in modern society
Information and Communication Technology Assessment Rubric

This document will help instructors create and evaluate assignments integrating information fluency, technology, and communications objectives. This rubric was crafted in accordance with campus established Information Fluency and Communication Literacies Learning Objectives.

<table>
<thead>
<tr>
<th>LOW Performance</th>
<th>MIDDLE Performance</th>
<th>HIGH Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEFINE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>Has difficulty using technology to identify and appropriately represent an informational need</td>
<td>Adequately uses technology to identify and appropriately represent an informational need</td>
</tr>
<tr>
<td>Cognitive/Ethical</td>
<td>Research Statements are:  - Somewhat related to the information need  - General in focus  - Somewhat indicative of related key concepts/terms</td>
<td>Research Statements are:  - Directly related to the information need  - Reasonably Specific  - Indicative of related key concepts/terms</td>
</tr>
<tr>
<td><strong>ACCESS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>Has little knowledge in collecting and/or retrieving information using technology</td>
<td>Displays basic knowledge in collecting and/or retrieving information using technology</td>
</tr>
<tr>
<td>Cognitive/Ethical</td>
<td>Search Mechanics are:  - Some key search terms are employed  - Some search limiters are selected  - Some syntax is effective  - Search strategy is not influenced by the platform used  - Some results do not satisfy the information need  - Tendency is NOT to adapt searches in response to prior results</td>
<td>Search Mechanics are:  - Key search terms are routinely employed  - Search limiters are routinely selected  - Syntax is generally effective  - Search strategy is somewhat influenced by the platform used  - Most results satisfy the information need  - Tendency is to adapt searches in response to prior results</td>
</tr>
<tr>
<td><strong>MANAGE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>Has difficulty using technology to organize information</td>
<td>Adequately uses technology to organize information</td>
</tr>
<tr>
<td>Cognitive/Ethical</td>
<td>Sometimes creates or selects an appropriate and effective scheme for classifying information  - Displays difficulty in arranging information within the selected scheme of classification  - Fails to treat confidential information appropriately</td>
<td>Usually creates or selects an appropriate and effective scheme for classifying information  - Is reasonably effective in arranging information within the selected scheme of classification  - Sometimes treats confidential information appropriately</td>
</tr>
</tbody>
</table>

1 This document is an adaptation of the Educational Testing Service’s iSkills Assessment: About DEFINE/ACCESS; About MANAGE/INTEGRATE; About CREATE/COMMUNICATE; and About EVALUATE cognitive assessment guidelines, and utilizes many of the direct learning objectives of these original documents.
| **INTEGRATE** | **Technical** | • Has difficulty comparing information when presented in different technology formats |
| | **Cognitive/Ethical** | • Summarizes/synthesizes information inaccurately and incompletely and/or in a disorganized fashion |
| | **Technical** | • Satisfactorily compares information when presented in different technology formats |
| | **Cognitive/Ethical** | • Summarizes/synthesizes information somewhat accurately, completely and in an organized fashion |
| **Technical** | • Effectively compares information when presented in different technology formats |
| **EVALUATE** | **Cognitive/Ethical** | • Sometimes selects the most appropriate resources in terms of authority, bias and currency |
| | **Technical** | • Usually selects the most appropriate resources in terms of authority, bias and currency |
| | **Cognitive/Ethical** | • Routinely selects the most appropriate resources in terms of authority, bias and currency |
| **CREATE** | **Technical** | • Difficulty using technology to generate new information and knowledge by adapting, applying, designing, inventing or representing information |
| | **Cognitive/Ethical** | • Creates a limited range of electronic materials |
| | **Technical** | • Adequately uses technology to generate new information and apply knowledge by adapting, applying, designing, inventing or representing information |
| | **Cognitive/Ethical** | • Creates some types of electronic materials with greater efficiency than others |
| **COMMUNICATE** | **Technical** | • Routine difficulty in using technology to convey information/knowledge to various individuals and/or groups |
| | **Cognitive/Ethical** | • Supports assertions with some relevant information but includes substantial extraneous information |
| | **Technical** | • Adequately uses technology to convey information/knowledge to various individuals and/or groups |
| | **Cognitive/Ethical** | • Supports assertions with mostly relevant information and some extraneous information |
| | **Technical** | • Routinely supports assertions with relevant information and no extraneous information |
| | **Cognitive/Ethical** | • Routinely supports assertions with relevant information and some extraneous information |
| | **Technical** | • Routinely supports assertions with relevant information and no extraneous information |
| | **Cognitive/Ethical** | • Routinely supports assertions with relevant information and no extraneous information |
Attachment b.
COM 100 Introduction to Computers
Spring 2005

Assignment #13  More with Microsoft Access

Create a new Database and Table:
1. Open Microsoft Access.
2. Choose Blank Access Database
3. We have to name our file before we start…
4. Double-click Create table by entering data.
5. You will be entering the port data below (and making up dates that you visited each port), so name your columns (Port Name, Latitude, Longitude, Date of visit) by right-clicking on the column, and selecting Rename Column.
6. Enter the data below, and add two more ports you wish to visit with anticipated visit dates. Do an internet search, if you need to, to get Latitude and Longitude values for your ports. (Go to www.google.com, and enter “latitude longitude port <port name>“)
7. After entering all the data in your table, save it. You’ll need to name the table (this is a name for this table only, this will not change the file name) and you will be asked to create a primary key. (Recall that a primary key is a record number, and it is good habit to have a primary key.) Let Access create the primary key.

Create a Report:
8. Click Reports in the left column of the database window
10. Put all the fields except the ID number in the report. Click Next.
11. Using grouping levels, you can order the way the fields are presented in the report. Select Date of Visit to be above the rest. Click Next.
12. For Sort order, you want the ports listed in alphabetical order by Port Name.
13. Continue to respond to the prompts, then click Finish.
14. After you are finished, view and then close the preview of the report.
15. Click on the report name in the database window, and click Design. Add your name to the title that is shown in Report Header.
16. Save the changes, and close the design view. Click Preview. Make sure everything is readable and looks good. If not, go to Design and fix it.
17. Check your work then print the page.
18. Save your database on the z-drive, and hand in the print-out of the report.

Ports of Southern California (N- latitude, W – longitude)
Santa Barbara Harbor  34°23.8’N - 119°43.3’W
Ventura Harbor  34°14.3’N - 119°16.9’W
Marina Del Rey  33°57.8’N - 118°27.5’W
King Harbor-Redondo Beach  33°50.4’N - 118°23.7’W
Port of Los Angeles  33°43.45’N - 118°15.40’W
Long Beach-Shoreline Harbor  33°43.4’N - 118°11.2’W
Alamitos Bay-Long Beach  33°44.17’N - 118°07.22’W
Huntington Harbor  N33º 43.900’, W118º 04.900’
Catalina Island Isthmus Cove  33°27’N, 118°30’W
Newport Harbor  33°43.3’N - 117°52.7’W
Oceanside Harbor  33°10.73’N - 117°24.00’W
San Diego Harbor  32°39.10’N - 117°13’.50’W

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1 This is the original Microsoft Access created by COM 100 Lecturer Alberto Ramon
COM 100 Introduction to Computers

Assignment #13 More with Microsoft Access

Given the port names listed at the bottom, locate the geographical coordinates of those ports using the Library’s port directory at http://library.csum.edu/reference/portsmaritime.htm

Create a new Database and Table:
1. Open Microsoft Access.
2. Click File | New
3. Choose Blank Database
4. Click the Create button
5. Double-click Create table by entering data.
6. You will be entering the port data below (and making up dates that you visited each port), so name your columns (Port Name, Latitude, Longitude, Date of visit) by right-clicking on the column, and selecting Rename Column.
7. Enter the data below
8. After entering all the data in your table, save it. You’ll need to name the table (this is a name for this table only, this will not change the file name) and you will be asked to create a primary key. (Recall that a primary key is a record number, and it is good habit to have a primary key.) Let Access create the primary key.

Create a Report:
9. Click Reports in the left column of the database window
10. Double click Create report using wizard.
11. Put all the fields except the ID number in the report. Click Next.
12. Using grouping levels, you can order the way the fields are presented in the report. Select Date of Visit to be above the rest. Click Next.
13. For Sort order, you want the ports listed in alphabetical order by Port Name.
14. Continue to respond to the prompts, then click Finish.
15. After you are finished, view and then close the preview of the report.
16. Click on the report name in the database window, and click Design. Add your name to the title that is shown below in the Report Header.
17. Save the changes, and close the design view. Click Preview. Make sure everything is readable and looks good. If not, go to Design and fix it.
18. Click “File” menu and then click “Export”
19. In the “Save as Type” box select “Rich Text Format”
20. As file name use Lastname#13YourSectNo and click “Export”, making sure your file will be exported to the z-drive. Submit your final document to me as an email attachment.

Ports of Southern California (N- latitude, W – longitude)
Santa Barbara Harbor Ventura Harbor Marina Del Rey King Harbor- Redondo Beach
Port of Los Angeles Long Beach-Shoreline Harbor Alamitos Bay-Long Beach

1 Updated Microsoft Access & Word Assignment, created and evaluated by COM 100 Lecturer Alberto Ramon in the fall semester of 2006
2 In the previous version of this assignment, most of the geographical information related to each port was provided to the students and if information was not provided, students were encouraged to conduct a general web search to locate this information with no later verification for accuracy of content. Encouraging students to utilize an online directory in order to independently locate and access ALL of the information for this project speaks to the development of ACCESS skill sets
3 In the previous version of this assignment, students submitted a print out of their report from ACCESS. In this version, Ramon goes a step further toward the development of students’ MANAGE and COMMUNICATE skill sets by requiring that the report be exported to a WORD document and automatically stored in a pre-determined location on school’s z-drive.
4 The requirement of students to save the file to a specific location on the z-drive was retained from version 1 of the assignment because it was felt that this update speaks to the development of students’ MANAGE skill sets. Students were required to submit the assignment digitally via email in addition to saving it to a predetermined location for later access
COM 100 Introduction to Computers

Assignment #12

We will create a professional PowerPoint Presentation, and the subject is you.

There should be 5 slides. (50 pts)
1. Title page
2. Basic data
   a. Born
   b. Number of Siblings
3. Prior Education
4. Interests and Hobbies
5. Why I came to CMA.

Be sure to include:
- A design template (Choose Design Template when you open PowerPoint) (10 pts)
- at least 1 graphic (Insert | Picture) (10 pts)
- numbers and affiliation on the slides (but not on the title slide) (Insert | Slide Number) (10 pts)
- one bulleted list (10 pts)
- No sound effects, minimal animation (10 pts)

Save it to the z-drive as Lastname#6SectNo and submit it.

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1 Original Microsoft PowerPoint assignment, created by COM 100 Lecturer Alberto Ramon
COM 100 Introduction to Computers

Assignment #12

Create a professional PowerPoint Presentation, with the subject a specific theme that will require outside information/corroboration, such as your specific hobby, sports team, musical group, advocacy group, politician, etc. Use information from at least three websites, which will be cited.

There should several slides, the first one being the title page.

Be sure to include:

- A design template (Choose Format | Slide Design then select a template).
- At least 1 graphic (Insert | Picture), accurately cited.
- Numbers on the slides (but not on the title slide) (Insert | Slide Number)
- One bulleted list (Format | Slide Layout then select appropriate layout)
- Automatic advance (Slide Show | Slide Transition then select Mouse Click, Automatic after 2 seconds, and Apply to All Slides)
- At least three hyperlinks (Insert | Textbox then click in the location where you want the text box then Insert | Hyperlink then fill in the boxes: Text to Display and Address).

Save it to the z-drive as Lastname#12YourSectNo and submit it.

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1 Updated Microsoft PowerPoint Assignment, created and evaluated by COM 100 Lecturer Alberto Ramon in the fall semester of 2006
2 Previously, students had been given a specific topic with a firm 5-slide page length. By allowing students to select a topic of personal interest and determine for themselves the amount of attention/materials that will be required in order to provide an adequate overview to the audience, Ramon aimed to encourage the development of students DEFINE skill sets.
3 In the revised version of the assignment, were asked to select a topic of their choice and independently locate, access, and use information from three online resources of their choice in order to effectively communicate the information gathered. This speaks to the development of students DEFINE and ACCESS skill sets.
4 Previously, students in this COM 100 exercise had not been required to cite the information used to support their projects. This speaks to the development of students COMMUNICATION skill sets.
5 See above.
6 Students are ascribed a list of predefined criteria that influence the format and design of the final project and are then asked to CREATE a new document that meets these criteria.
7 The requirement of students to save the file to a specific location on the z-drive was retained from version 1 of the assignment because it was felt that this update speaks to the development of students’ MANAGE skill sets. Students were required to submit the assignment digitally via email in addition to saving it to a predetermined location for later access.
**Searching the Web**

**COM 100: Assignment 18**

**Instructions:**

Answer the following questions using the advanced Internet search tools and techniques discussed in this week’s classes.

*Your final results must be submitted in the form of a logically organized and consistently formatted table in a Microsoft Word document.*

Within the table, you must provide the following information: 1) Number of each question; 2) The answer; 3) The name of the online search tool(s) used to obtain the answer; and 4) An indication of how difficult you perceived the task to be (*Easy, Moderate, or Difficult*).

**Questions:**

1) In September of 2000, a student journalist/photographer named *Mindy Drake* took a picture to accompany a brief story in the *El Independiente*. Using a visual search engine, can you find what the picture was of?

2) Use an advanced search engine to find a U.S. government website with a continuously-updating clock that estimates the country’s population. What is the URL of this website? What is the official population estimate at the time of your visit?

3) Use an audio/visual search engine to locate a sound recording of Barack Obama’s September 20th Energy Independence speech. What is the URL of the website where this clip is stored?

---

1 This new assignment was developed by Information Fluency Librarian Mindy Drake in the fall of 2006 and given to students in all COM 100 and ENG 120 courses. Grading of this assignment through COM 100 classes was handled by Drake using the attached rubric. Students were given a 50-minute lecture on basic Internet search mechanics prior to this assignment, with a specific emphasis placed on the difference between search engines, directories and databases.

2 In previous web search assignments given to COM 100 students, no emphasis was placed upon the preferred mode of information delivery. Insisting that students organize and present their final results in a logically an efficiently organized Microsoft Word table speaks to the development of their MANAGE and COMMUNICATE skill sets.

3 This task also encourages the development of students’ INTEGRATE skill sets by requiring them to independently access information through a variety of online systems and then synthesize and present that information in a logical capacity through the use of a technology tool…in this case, Microsoft Word.

4 Requiring students to reflect upon the process of obtaining the specific information need serves two purposes: a) to gather data related to students’ perceived online search skills; and b) to encourage the development of students’ DEFINE and ACCESS skill sets.

5 The following questions were designed to encourage the development of students’ ACCESS and EVALUATE skill sets by requiring the independent location, access, and critical evaluation of information from a variety of online search systems.
4) Use an online directory to provide the name of at least 3 freely-accessible online databases (not websites) that can be searched to find the full-text of books and classical writings.

5) Use one of the freely-accessible online databases you located in question #4 to find a copy of Ajax by Sophocles. What group makes up the “chorus” in this play?

6) In December of 2006, 2 scientists (Podsiadlo & Stachowiak) co-authored an article concerning engineering surfaces without surface parameters. Use a search engine to locate the name of the journal in which this article was published.
   a. **Hint:** why not search a tool dedicated to scientific information?

7) In order to gain access inside UN events, a member of the media must receive a special pass. What documents must a reporter present to apply for these passes?
   a. **Hint:** try conducting a keyword search for all of the documents on the www.un.org domain at one time!

8) In her April 12th, 2005 speech before the House of Representatives, Betty McCollum [D-MN] suggested that “violence is a plague which is promoted, glorified and condoned…” by what 4 factors?
   a. **Hint:** This question has 2 steps! You may want to search for her remarks within a database called the congressional record.
First, find the following articles\(^1\) by using the online databases hosted by the Cal Maritime Library:

2. A Man of Big IDEOS. A. Kelley
3. Fe-8Al Alloy Damps Vibrations 12X Better Than Steel. Asia Pulse Pte, Ltd.

Print the articles out and create a table that looks like this\(^2\):

<table>
<thead>
<tr>
<th>Vocabulary</th>
<th>DLN</th>
<th>IDEOS</th>
<th>ALLOY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thesis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objectivity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integration of ideas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Then answer the following questions using the table. Be ready to discuss anything you can’t find a place for in your table.

1. What is the level of vocabulary in these three texts? Rank them in order of difficulty. What level of audience does the diction in each imply?\(^3\)

2. At what point in each article is the thesis, or main idea announced? Is the thesis repeated anywhere else? Why or why not? How important is the thesis in each article? Rank them in order of thesis clarity.

3. How is the thesis supported in each article? How are data, examples, and narrative arguments posed? Where in the articles do they occur? What kind of technical writing “rules” do these texts seem to support?

4. How do you know that the authors are objective? Do you see any evidence of bias? Rank each article in order of bias. What does each author stand to gain by persuading his/her audience? Money? Prestige? Nothing?

5. How does each author weave together the ideas of others with their own? What are the introductory phrases used (e.g. “According to Jones…”)?

6. Describe what these three articles look like on the page. Name the articles’ separate parts (e.g. abstract, body, etc…). What parts are common? Rank them in order of organizational “tightness.”

---

\(^1\) Changed from one article. Supports DEFINE skills. Also, students are required to locate the articles given a limited amount of information. Supports ACCESS skills.

\(^2\) Changed from free-form discussion questions to emphasize MANAGE skills (students must now use technology to organize information). Also asks students to CREATE a document.

\(^3\) Comparing articles supports EVALUATE skills.
ENG 120
Chisholm
Instructions Exercise

1. Save this file to your desktop as “instructions [yourlastname]” and open it.¹

2. Study the clothing hanging in the classroom². You are going to teach a Martian one aspect of the way a typical human gets dressed. You may use a maximum of ten steps³ and one diagram⁴; this constraint should determine your scope. You may also need to define your terms beyond “collar” or “cuff,” as your audience speaks only simple English and has no dictionary on his/her/its spaceship.⁵

3. (Before you start, read the following, an excerpt from the blog, “It’s Not All Mary Poppins”⁶:

1. Lay the coat on the floor in front of the child. It is unzipped and open. The child stands facing the coat, at the collar end, so the coat is upside-down to him. 2. While the coat is on the floor, the child reaches down and inserts his hands into the sleeve openings. 3. This is the trickiest bit, and requires a bit of practice: With his hands inserted into the beginning of the sleeves, the child raises his hands above his head, and then lowers his arms to the sides. This motion forces the hands down through the sleeves. As the coat is falling (magically!) into place, the child will likely need to duck his head a bit to allow it to slip down where it belongs. Done. The coat is now on.

Would these instructions be suitable for your Martian, a gelatinous cube lacking arms, legs, and head, who has never seen a coat or hanger, let alone a human being? Why or why not?)

¹ Added to emphasize the saving of the file to a specific location. Corresponds to the MANAGE skill set.
² Changed from “one item of clothing,” in order to compel students to narrow the focus of the assignment. Corresponds to the DEFINE skill set.
³ ibid
⁴ Asks students to create a visual display based on pre-existing information. Corresponds to the CREATE skill set.
⁵ Changed from a native English speaker; this forces students to use pre-existing information to determine level of diction. Corresponds to the CREATE skill set.
Results of the ICT Pre-Survey\(^1\)

This 7-question pre-survey to the iSkills\(^2\) Assessment was administered to 151 students in COM 100 during the fall semester of 2005. The questions posed were designed to elicit students’ perceptions related to computing skills and information management. The results of this survey have been compiled below to illustrate the percentage of respondents as a whole and by individual major.

Survey Demographics:

<table>
<thead>
<tr>
<th>Major</th>
<th>GSMA</th>
<th>ME</th>
<th>MET/FET</th>
<th>MT</th>
<th>BA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Test Takers</td>
<td>23 (16%)</td>
<td>37 (26%)</td>
<td>5 (4%)</td>
<td>64 (46%)</td>
<td>11 (8%)</td>
</tr>
<tr>
<td>Percentage of Incoming Major</td>
<td>23/25 (92%)</td>
<td>37/42 (88%)</td>
<td>5/57 (9%)</td>
<td>64/88 (73%)</td>
<td>11/29 (38%)</td>
</tr>
</tbody>
</table>


Q1. Have you taken a class on the use of computers in high school or for previous college credit?

<table>
<thead>
<tr>
<th>Response</th>
<th>All Testers</th>
<th>GSMA</th>
<th>ME</th>
<th>MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, more than one</td>
<td>31/140</td>
<td>10/23</td>
<td>4/37</td>
<td>13/64</td>
</tr>
<tr>
<td></td>
<td>22%</td>
<td>43%</td>
<td>11%</td>
<td>20%</td>
</tr>
<tr>
<td>Yes, at least one</td>
<td>51/140</td>
<td>5/23</td>
<td>13/37</td>
<td>29/64</td>
</tr>
<tr>
<td></td>
<td>36%</td>
<td>22%</td>
<td>35%</td>
<td>45%</td>
</tr>
<tr>
<td>No</td>
<td>58/140</td>
<td>8/23</td>
<td>20/37</td>
<td>22/64</td>
</tr>
<tr>
<td></td>
<td>41%</td>
<td>35%</td>
<td>54%</td>
<td>34%</td>
</tr>
<tr>
<td>No Response</td>
<td>11/51</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>7%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

\(^1\) Results of this imbedded pre-test were shared with faculty late in the fall semester of 2006, and data gathered was used to inform decision making in the development and assessment of the LIB 100: Information Fluency in the Digital World course format

\(^2\) Previously known as the ICT Literacy Assessment, produced by the Educational Testing Service
Q2. Have you received previous instruction in managing and sharing files on a computer or online?

<table>
<thead>
<tr>
<th>Response</th>
<th>All Testers</th>
<th>GSMA</th>
<th>ME</th>
<th>MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, and I feel confident I could effectively manage and share files on a computer or online</td>
<td>40/137 29%</td>
<td>9/23 39%</td>
<td>12/37 32%</td>
<td>18/64 28%</td>
</tr>
<tr>
<td>Yes, but I DO NOT feel confident I could effectively manage and share files on a computer or online</td>
<td>38/137 28%</td>
<td>4/23 17%</td>
<td>7/37 19%</td>
<td>21/64 33%</td>
</tr>
<tr>
<td>No, I have not received any previous instruction in this area</td>
<td>59/137 43%</td>
<td>10/23 43%</td>
<td>17/37 46%</td>
<td>23/64 36%</td>
</tr>
<tr>
<td>No Response</td>
<td>14/151 9%</td>
<td>N/A</td>
<td>1/37 3%</td>
<td>2/64 3%</td>
</tr>
</tbody>
</table>

Q3. Have you received previous instruction in using Microsoft Word to create, edit, and format a Word document?

<table>
<thead>
<tr>
<th>Response</th>
<th>All Testers</th>
<th>GSMA</th>
<th>ME</th>
<th>MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, and I feel confident I could use this program effectively.</td>
<td>91/135 67%</td>
<td>19/23 83%</td>
<td>18/37 49%</td>
<td>41/64 64%</td>
</tr>
<tr>
<td>Yes, but I DO NOT feel confident I could use this program effectively.</td>
<td>21/135 16%</td>
<td>4/23 17%</td>
<td>6/37 16%</td>
<td>8/64 13%</td>
</tr>
<tr>
<td>No, I have not received previous instruction in the use of this program.</td>
<td>23/135 17%</td>
<td>0</td>
<td>13/37 35%</td>
<td>10/64 15%</td>
</tr>
<tr>
<td>No Response</td>
<td>16/151 11%</td>
<td>N/A</td>
<td>N/A</td>
<td>5/64 8%</td>
</tr>
</tbody>
</table>
Q4. Have you received previous instruction in using Microsoft PowerPoint to create and edit a presentation?

<table>
<thead>
<tr>
<th>Response</th>
<th>All Testers</th>
<th>GSMA</th>
<th>ME</th>
<th>MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, and I feel confident I could use this program effectively.</td>
<td>62/136</td>
<td>13/23</td>
<td>15/37</td>
<td>29/64</td>
</tr>
<tr>
<td>Yes, but I DO NOT feel confident I could effectively.</td>
<td>34/136</td>
<td>4/23</td>
<td>10/37</td>
<td>14/64</td>
</tr>
<tr>
<td>No, I have not received any previous instruction in the use of this program.</td>
<td>40/136</td>
<td>5/23</td>
<td>11/37</td>
<td>18/64</td>
</tr>
<tr>
<td>No Response</td>
<td>15/151</td>
<td>1/23</td>
<td>1/37</td>
<td>3/64</td>
</tr>
</tbody>
</table>

Q5. Have you received previous instruction in using Microsoft Access to create and format a database?

<table>
<thead>
<tr>
<th>Response</th>
<th>All Testers</th>
<th>GSMA</th>
<th>ME</th>
<th>MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, and I feel confident I could use this program effectively</td>
<td>12/137</td>
<td>5/23</td>
<td>2/37</td>
<td>4/64</td>
</tr>
<tr>
<td>Yes, but I DO NOT feel confident I could use this program effectively</td>
<td>22/137</td>
<td>3/23</td>
<td>3/37</td>
<td>14/64</td>
</tr>
<tr>
<td>No, I have not received any previous instruction in the use of this program</td>
<td>103/137</td>
<td>15/23</td>
<td>32/37</td>
<td>43/64</td>
</tr>
<tr>
<td>No Response</td>
<td>14/151</td>
<td>N/A</td>
<td>N/A</td>
<td>3/64</td>
</tr>
</tbody>
</table>
Q6. Have you received previous instruction in creating a web page?

<table>
<thead>
<tr>
<th>Response</th>
<th>All Testers</th>
<th>GSMA</th>
<th>ME</th>
<th>MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, and I feel confident I could create and edit a basic web page.</td>
<td>18/136</td>
<td>5/23</td>
<td>5/37</td>
<td>9/64</td>
</tr>
<tr>
<td></td>
<td>13%</td>
<td>22%</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Yes, but I DO NOT feel confident I could create and edit a basic web page</td>
<td>34/136</td>
<td>9/23</td>
<td>8/37</td>
<td>15/54</td>
</tr>
<tr>
<td></td>
<td>25%</td>
<td>39%</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>No, I have never received instruction in this area</td>
<td>84/136</td>
<td>9/23</td>
<td>22/37</td>
<td>38/64</td>
</tr>
<tr>
<td></td>
<td>62%</td>
<td>39%</td>
<td>59%</td>
<td>59%</td>
</tr>
<tr>
<td>No Response</td>
<td>15/151</td>
<td>N/A</td>
<td>2/37</td>
<td>2/64</td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td></td>
<td>5%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Q7. Have you received previous instruction in the use of Microsoft Excel to create and format a spreadsheet?

<table>
<thead>
<tr>
<th>Response</th>
<th>Total Number</th>
<th>GSMA</th>
<th>ME</th>
<th>MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, and I feel confident I could use this program effectively.</td>
<td>48/138</td>
<td>7/23</td>
<td>9/37</td>
<td>25/64</td>
</tr>
<tr>
<td></td>
<td>35%</td>
<td>30%</td>
<td>24%</td>
<td>39%</td>
</tr>
<tr>
<td>Yes, but I DO NOT feel confident I could use this program effectively.</td>
<td>48/138</td>
<td>11/23</td>
<td>13/37</td>
<td>17/64</td>
</tr>
<tr>
<td></td>
<td>35%</td>
<td>48%</td>
<td>35%</td>
<td>27%</td>
</tr>
<tr>
<td>No, I have not received any previous instruction in the use of this program</td>
<td>42/138</td>
<td>5/23</td>
<td>15/37</td>
<td>20/64</td>
</tr>
<tr>
<td></td>
<td>30%</td>
<td>22%</td>
<td>41%</td>
<td>31%</td>
</tr>
<tr>
<td>No Response</td>
<td>13/151</td>
<td>N/A</td>
<td>N/A</td>
<td>2/64</td>
</tr>
<tr>
<td></td>
<td>9%</td>
<td></td>
<td></td>
<td>3%</td>
</tr>
</tbody>
</table>
THE iSKILLS ASSESSMENT:
The iSkills Assessment (formerly the ICT Literacy Assessment), provides quantitative data concerning students' proficiencies in seven distinct skill areas:

- **DEFINE**: The ability to use information and communication technology tools to identify and appropriately represent an information need.
- **ACCESS**: The ability to collect and retrieve information in digital environments. This includes the ability to identify likely digital information sources and to get the information from those sources.
- **EVALUATE**: The ability to determine the degree to which digital information satisfies the needs of the task in technology-driven environments. This includes the ability to judge the quality, relevance, authority, point of view/bias, currency, coverage, or accuracy of digital information.
- **MANAGE**: The ability to apply an existing organizational or classification schemes for digital information. This ability focuses on reorganizing existing digital information from a single source using existing organizational formats. It includes the ability to identify existing organization schemes, select appropriate schemes for the current usage, and apply the schemes.
- **INTEGRATE**: The ability to interpret and represent digital information. This includes the ability to use technology to synthesize, summarize, compare and contrast information from multiple digital sources.
- **CREATE**: The ability to generate information by adapting, applying, designing or inventing information in technology-driven environments.
- **COMMUNICATE**: The ability to communicate information properly in its context of use for technology-driven environments. This includes the ability to gear electronic information for a particular audience and to communicate knowledge in the appropriate venue.

INTERPRETING THIS DOCUMENT
Each page in this document represents the 2-3 iSkills tasks associated with a particular skill area, as defined above.

Each individual chart included in this document depicts the percentage of students in the demographics indicated who achieved the best possible response for each of the subtasks. This should be interpreted visually as the percentage of students who displayed mastery of a certain skill. All other students in the population indicated who responded to the task performed either reasonably (but not with maximum efficiency), or poorly.

A question key is provided on the page with related charts. This key indicates the skill area being evaluated and provides a description of the task students were asked to perform. Also included within this question key is a list of best possible responses for each of the sub-tasks associated with the skill area.
Each test taker of the iSkills advanced-level assessment is assigned a score ranging from 400-700 points.

This graph depicts the average score of California Maritime Academy’s incoming freshmen and senior populations who took the iSkills in the 2006-2007 academic year.

The red line represents the mean national score. This indicates that 50% of all national test takers who took the advanced version of the iSkills during the early 2006 administration (approximately 1184 students) received scores higher than this mark & 50% received scores below this mark.

At 554, the average score of Incoming Freshmen is roughly consistent with the 50% point of all national test takers.

At 561, the average score of Seniors is approximately 7 points higher, indicating only slight improvement in overall iSkills median performance.

* Note: The approximately 1702 students indicated in the national population include test takers from all class levels in all types of post-secondary institutions, including community colleges.

This information was obtained from the Educational Testing Service’s More About ETS ICT Literacy Scores, 2006
**DEFINE "Snapshot"**

The DEFINE skill area addresses behaviors related to formulating a research statement and defining the perameters of their research need. This area also relates creating and structuring new research tasks as they relate to a set of predetermined criteria.

**Define Task 1:** Answer three questions to narrow the scope of a research project

- **Observable A:** Student selected the best initial question to help clarify the project
- **Observable B:** Student selected the best database variable to provide useful information for the project
- **Observable C:** Student chose the best research question

**Define Task 2:** Chose a research topic according to specific criteria and explain your choice

- **Observable A:** Student chose a research topic that fulfilled all of the criteria given
- **Observable B:** Student correctly reported the criteria fulfilled by the research topic selected

---

**DEFINE SKILL ANALYSIS**

**Define Task 1:**
Approximately 55% of seniors and 59% of freshmen were able to effectively narrow the scope of a predefined research project.

However, the performance of both populations fell when it came to selecting appropriate database variables that would yield useful information. 65% of seniors and 56% of incoming freshmen performed less than optimally in this area.

When ultimately selecting the best research question to meet the needs of the project, seniors demonstrated a notably higher proficiency. 61% of seniors were able to select the best research question to meet the needs of the project, as compared to just 42% of incoming freshmen.

**Define Task 2:**
Although seniors demonstrated a higher proficiency in these critical thinking tasks, the majority of both populations appeared to struggle with identifying research topics that meet predefined criteria and later analyzing the qualities of the topic chosen.

Just 34% of incoming freshmen and 53% of seniors were able to choose a research topic that fulfilled all of the required external criteria.
The ACCESS skill area addresses the ability of test takers to find and retrieve information from a variety of sources, including web pages, databases, discussion groups, email, or print media. This area also measures the ability of test takers to efficiently browse different types of resources, in order to locate and obtain relevant information and apply efficient search mechanics within the scope of a predefined research project.

Access Task 1: Install a video player in order to download a video file

Observable A: Student installed the player and played the file successfully.
Observable B: Student selected no unnecessary links when installing the player.
Observable C: Student saved the file to the proper folder on the hard drive.

Access Task 2: Locate a web page and two database abstracts for a research project

Observable A: Student used terms that were precise and useful in Web searches.
Observable B: Student used terms that were precise and useful in database searches.
Observable C: Student used proper search delimiters in database searches.

Access Task 3: Search a store's database in response to a customer's inquiry

Observable A: Student chose the correct store database on their first search.
Observable B: Student selected the best category for searching within the database.
Observable C: Student chose the best search expression for the category selected.
Observable D: Student selected all of the appropriate items for the customer.
Observable E: Student did not select any inappropriate items for the customer.

Access Task 1: Both incoming freshmen and seniors were generally able to access and install an online video player, but the results of both groups fell with regard to efficiency. Approximately 89% of freshmen and 94% of seniors were able to install the player and play the file successfully, but just 51% of freshmen and 57% of seniors were able to do so without selecting unnecessary links.

Similarly, 47% of freshmen and 67% of seniors were able to ultimately save the file to the proper location on a computer’s hard drive.

Access Task 2: Although seniors generally displayed a higher accruement in the areas of web searching and using databases efficiently, it is clear that both populations struggled in these areas. GREATER THAN 60% of students in both populations performed less than optimally when selecting appropriate search terms for web and database searches AND in using proper search delimiters.

Access Task 3: The majority of both populations demonstrated a high level of competency in selecting an appropriate search tool from a list provided, but performance dropped sharply with regard to efficient search mechanics and the selection of materials appropriate to the needs of a specific customer.
Evaluate "Snapshot"

The Evaluate skill area addresses the ability of test takers to determine the usefulness of information for a specific purpose, critique the relevancy of information, discern authority, timeliness, and bias of information resources, and determine the extent of information that is needed for a specific purpose in order to gauge completeness of a task.

Evaluate Task 1: Judge the probable usefulness of sites returned in a web search for a particular research topic

- **Observable A**: Student selected the best site for the research topic
- **Observable B**: Student judged sites correctly with regard to authority
- **Observable C**: Student judged sites correctly with regard to bias
- **Observable D**: Student judged sites correctly with regard to currency

Evaluate Task 1 Analysis:

Approximately 50% of seniors and 45% of incoming freshmen were able to select the web site that would best provide useful information on a predefined topic. When it came to analyzing the content of websites returned, approximately 60% of both populations judged sites accurately with regard to authority; more than 80% with regard to currency. However, both groups struggled with regard to identifying bias in websites. Only 29% of incoming freshmen and 32% of seniors were able to judge the Web site correctly with regard to bias.

Evaluate Task 2: Judge the usefulness of Web pages and article abstracts

- **Observable A**: Student visited only promising Web pages
- **Observable B**: Student selected the best Web page to visit the first time it was returned in a Web search
- **Observable C**: Student bookmarked the best Web page for the assignment
- **Observable D**: Student selected the two best abstracts from the article database

Evaluate Task 2 Analysis:

This task dealt with efficiency in web searching practices. Although the senior population appeared to have a generally higher performance as compared to incoming freshmen, both populations struggled consistently in this area. Approximately 73% of seniors and 91% of freshmen visited unpromising web pages that were unlikely to yield useful information on their topics. 51% of seniors and 70% of freshmen never bookmarked the best web page for the assignment. Approximately 85% of both groups failed to select the two best abstracts for their project needs from an article database.

Evaluate Task 3: Evaluate flyers according to their fulfillment of particular criteria and choose the best one

- **Observable A**: Student rated the flyers correctly
- **Observable B**: Student chose the correct flyer as best
- **Observable C**: Student filled out the justification form explaining their choice of flyer correctly

Evaluate Task 3 Analysis:

The majority of students in both populations demonstrated difficulty in accurately applying outside criteria to an existing project or informational search. Also, the majority of students in both groups demonstrated difficulty in communicating their evaluative process at the end of the task. Approximately 41% of incoming freshmen and 45% of seniors were able to fill out a justification form explaining their choice of flyer correctly.
The Manage skill area addresses behaviors related to applying existing organizational schemes to digital information. Tasks in this area might include categorizing stores of information such as e-mails into appropriate folders based upon predefined criteria; arranging personnel information into an organizational chart or sorting clusters of related information into a new organizational scheme.

**Manage Task 1: Organize files into folders on a hard drive**

**Observable A:** Student moved all files into proper folders

**Observable B:** Student deleted all unnecessary folders

**Manage Task 2: Place e-mails into correct folders and identify those requiring later action**

**Observable A:** Student moved all e-mails into proper folders

**Observable B:** Student properly handled e-mails requiring later action

**MANAGE SKILL ANALYSIS**

**Manage Task 1:**

The majority of both populations displayed some level of difficulty in both re-organizing files in order to comply to the introduction of a new organizational scheme AND in deleting file folders that were no longer necessary for accomplishing the needs of the project.

Approximately 80% of seniors and 83% of freshmen made errors in moving files to proper folders.

Approximately 84% of seniors and 83% of freshmen failed to delete all unnecessary file folders or deleted some necessary file folders.

**Manage Task 2:**

Both populations continued to display low performance on tasks related to moving existing files according to predetermined criteria in this case, e-mails and then properly handling files that required later action.

Approximately 23% of incoming freshmen and 25% of seniors were able to move all e-mails into proper folders.

Approximately 34% of incoming freshmen and 33% of seniors were able to properly handle e-mails requiring later action.
Integrate "Snapshot"

The Integrate skill area assesses behaviors related to interpreting and representing print and digital information. Tasks in this area deal with proficiency in using technology tools to synthesize, summarize, compare and contrast information obtained from multiple resources.

Integrate Task 1: Combine several electronic suggestions in order to plan a scientific experiment

**Observable A:** Student organized the experiment correctly

**Observable B:** Student distinguished the steps and results of the experiment correctly

**Observable C:** Student correctly identified the conclusion in the experiment plan

**Observable D:** Student accurately cited the source of the experiment

Integrate Task 2: Compare several reviews in order to choose the best product

**Observable A:** Student created table rows that represented their needs effectively

**Observable B:** Student filled in table cell accurately

**Observable C:** Student ranked products correctly

Integrate Task 1

<table>
<thead>
<tr>
<th></th>
<th>CMA Freshmen</th>
<th>CMA Seniors</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN1a</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN1b</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN1c</td>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN1d</td>
<td>80%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Integrate Task 2

<table>
<thead>
<tr>
<th></th>
<th>CMA Freshmen</th>
<th>CMA Seniors</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN2a</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN2b</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN2c</td>
<td>30%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Integrate Task 1:

When it came to integrating several electronic suggestions in order to plan a scientific experiment, the majority of incoming freshmen appear to perform slightly better than their senior counterparts. However, both populations fell consistently at or below the 50% margin in most tasks.

Approximately 50% of incoming freshmen and GREATER THAN 50% of seniors had difficulty organizing an experiment, distinguishing the steps and results and proper conclusion of the experiment.

Additionally, the majority of incoming freshmen appear to have a significantly better understanding of the need to accurately cite information than their senior counterparts.

Integrate Task 2:

The most challenging aspect of this task for both groups appears to have been organizing integrated data into a new digital object, in this case a table.

Approximately 63% of seniors and 74% of incoming freshmen did NOT create table rows that effectively represented their needs.

Approximately 47% of incoming freshmen and 55% of seniors were able to fill in established table cells correctly.

Approximately 87% of incoming freshmen and 80% of seniors were able to rank the products correctly.
Create "Snapshot"

The Create skill area assesses behaviors related to producing information by adapting, applying, designing or inventing information with the use of digital technologies.

**Create Task 1:** Choose material to create a Web page

**Observable A:** Student selected the necessary and desirable content for the web page

**Observable B:** Student organized the web page logically and effectively

**Observable C:** Student observed ethical or legal considerations

**Create Task 2:** Create a data display (line graph) displaying recent movie trends

**Observable A:** Student selected the necessary content for the data display

**Observable B:** Student organized the layout of the data display logically and effectively

**Observable C:** Student created the data display very efficiently

**Observable D:** Student drew a correct conclusion based on the data display

**CREATE SKILL ANALYSIS**

**Create Task 1:**
The majority of both populations performed fairly well in selecting the necessary and desirable content for a new web page, organizing the web page logically and efficiently, and ultimately observing ethical or legal considerations related to the creation of the web page. The lowest performance observables in this task had to do with selection and organization of appropriate content.

Approximately 74% of seniors and 66% of freshmen were able to select the most appropriate content web page.

Approximately 61% of seniors and 62% of freshmen organize the content selected in a logical and effective manner.

**Create Task 2:**
Although the seniors appear to be somewhat more adept at the creation and organization of a new data display (line graph), the majority of both populations displayed difficulty with these tasks.

GREATER THAN 65% of both populations were UNABLE to select the necessary content for a new graph item, organize the layout of the graph item logically and create the item efficiently.

GREATER THAN 66% of both populations were UNABLE to draw a correct conclusion based upon the graph item.
Communicate "Snapshot"

The Communicate skill area addresses behaviors related to using digital technologies in order to communicate information appropriately for specific audiences, venues and applications. This may include such tasks as formatting a document to make it more useful to a specific population, designing advertisements or flyers that conform to predetermined posting criteria, or even re-working an existing presentation for use in an alternate venue.

Communicate Task 1: Make a slide arguing a position on telecommuting based on information presented in an e-mail

Observable A: Student included all key points necessary for effective communication
Observable B: Student included no points irrelevant to the audience's needs
Observable C: Student chose the most effective title for the presentation slide

Communicate Task 2: Select the best way to advertise an event to the users of an electronic mailing list

Observable A: Student correctly analyzed the key details of all the advertisements
Observable B: Student correctly applied the mailing list policy to the advertisements
Observable C: Student chose appropriate advertising content for the audience
Observable D: Student chose an advertisement with language and tone suitable for the audience
Observable E: Student selected the best advertisement for the mailing list

Communicate Task 1: The majority of both populations displayed a significant lack of proficiency when it came to selecting appropriate content from outside sources with which to generate a persuasive slide and eliminating extraneous data.
82% of seniors and 73% of incoming freshmen did not include all key points necessary for effective communication.
Likewise, the majority of both populations struggled to eliminate all IRRELEVANT information. Approximately 85% of seniors and 82% of incoming freshmen included irrelevant information in their slides.

Communicate Task 2: The majority of both populations struggled with analyzing the key details of a series of advertisements.
Approximately 13% of incoming freshmen and 27% of seniors were able to correctly analyze the key details of an advertisement.
Similarly, both populations had difficulty determining if specific advertisements met the qualifications for posting on a pre-existing mailing list policy.
Approximately 34% of incoming freshmen and 33% of seniors were able to correctly apply the mailing list policy to the advertisements.
However, performance grew significantly among both populations when asked to tailor the presentation of materials to the needs of a specific audience, with seniors demonstrating a significant advantage in this area.
Approximately 41% of incoming freshmen and 59% of seniors were able to select the best advertisement for the mailing list after considering the policy, the appropriateness of advertising and the suitability of language and tone.
These line graphs present an overview of student performance in each of the 7 iSkills skill areas: DEFINE, ACCESS, EVALUATE, MANAGE, INTEGRATE, CREATE, and COMMUNICATE. California Maritime Academy student responses are compared with those of 1184 national test takers from all class standing populations and types of 4-year postsecondary institutions.
LIB 100: Information Fluency in the Digital World

Course Description

CONTENTS:

Page 1: Course Description and Goal Statement

Page 2: Course Competencies (Objectives)

Page 3: Grading Criteria, Assignments & Evaluation

Page 4: Course Requirements & Sample Syllabus

Page 6: Assessment Plans & Additional Commentary

Created by the California Maritime Academy Library’s Information Fluency Program
COURSE NAME
LIB 100: Information Fluency in the Digital World

COURSE DESCRIPTION
(As it will appear in the course catalog.)

This class will provide students with an introduction to research, information management and computing technology skills that are fundamental for success in the college environment and beyond. Students will explore the research process, develop efficient search methodologies in an online environment, and learn to critically evaluate resources. Simultaneously, students will be given an orientation to the use of Microsoft Office programs, with special attention paid to information management, critical-thinking and problem-solving.

COURSE GOALS:
(Describe the main goals and objectives of the course.)

Today’s incoming freshmen must be prepared to participate in a global information society, in which they will be required to interact with information resources, instructors and peers in an increasingly digital capacity. In order to achieve the status of “Independent Learner” in the modern society, students will have to locate, access, evaluate, organize and synthesize materials from a vast multitude of catalogs, databases, search engines, directories, aggregators, and federated search systems. Throughout their educations, Cal Maritime students will be expected to communicate through learning management systems, websites, social networks, blogs, email programs, and file-sharing networks.

This class proposes a hybrid instructional experience that provides learners with fundamental instruction in critical thinking skills related to access, evaluation and use in modern society, paired with a solid introduction to the use of Microsoft Office software. The class will be conducted in a computer lab, and students will be responsible for actively participating in an online learning environment through the use of the Cal Maritime’s learning management software, WebCT.

The range of skills related to communicating and learning through digital mediums must be taught if students are expected to actively participate in their education. As the curriculum currently stands, there is no venue for introducing the breadth of these information management skills uniformly, and little means for evaluating the progression of students’ understanding of informational systems and modes of access. The main goals of this class will be threefold: 1) To give students a solid orientation to the research process; 2) To prepare students for effective and ethical participation in a largely digital learning environment; and 3) To empower students to efficiently carry-out future assignments, projects, and presentations through the use of common software (i.e. Online search systems, Microsoft Office programs, WebCT, etc.)

LIB 100 will also tie-in to the freshmen-year Writing Across the Curriculum (WAC) platform by providing a venue in which to fully develop the research component of students’ multifaceted projects. During the course of the semester, students will gather a rich selection of materials related to established WAC paper topics in a manner which complements ongoing communications initiatives in EGL100 and learning objectives of introduction-to-major courses. These materials will be organized and arranged with the aid of programs imbedded in the WebCT learning management system. In the case of students who are currently enrolled in alternate WAC-participation courses, the research conducted in class can be directly applied to ongoing papers and projects. In the case of students not currently enrolled in alternate WAC courses, the research will be organized and stored through the e-portfolio tool and applied to courses in subsequent semesters.

In this way, LIB 100 will function to create a more cohesive and effective freshmen-year experience for Cal Maritime students.
COURSE COMPETENCIES
(Describe the specific skills that are the intended outcome of the course.)

Goal 1: Students will select appropriate search tools (catalogs, databases, Internet search engines, Indexes, etc.) to satisfy research requirements.

Goal 2: Students will implement effective search techniques (Boolean logic, online search mechanics, subject searching, etc.) to generate relevant data to satisfy research requirements.

Goal 3: Students will evaluate materials in print, electronic, & audio-visual formats to verify their authority, purpose, accuracy, relevancy, and reasonableness.

Goal 4: Students will organize and synthesize a collection of informational resources to create a cohesive body of knowledge that documents the development of a particular research process.

Goal 5: Students will interact effectively and ethically with their instructor and peers through a digital learning management system (WebCT). This will include participation in class chat rooms, mail systems, file-sharing and management tasks, and e-portfolio building.

Goal 6: Students will demonstrate an understanding of how to create and update a basic website including text, links, graphics, and tables, using Microsoft FrontPage.

Goal 7: Students will demonstrate an understanding of how to design a template, bullet lists, import graphics, and use basic animation in the Microsoft PowerPoint program.

Goal 8: Students will demonstrate an understanding of how to use formulas, graph data, and sort data in a logical capacity by using Microsoft Excel.

Goal 9: Students will demonstrate an understanding of how to format, edit, and effectively create documents using Microsoft Word.

REQUIRED TEXT
(Include supplementary and suggested reading.)

There will be no required text in this course. Students will be assigned readings which they will be responsible for independently locating and accessing as required.

FINAL EXAM YES NO
In lieu of an exam, students will be assigned a final project in which they will organize and synthesize information gathered through all previous class assignments to generate a cohesive e-portfolio which documents the progress of the WAC research projects.

1 DEFINE/ACCESS skill area
2 ACCESS skill area
3 EVALUATE skill area
4 MANAGE/INTEGRATE skill areas
5 COMMUNICATE/INTEGRATE skill areas
6 Items 6-9 focus on the CREATE skill areas
GRADING CRITERIA AND EVALUATION

The course grade will be a weighted average of the following four components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance &amp; Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Research Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Computing Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Final Project/ Research Portfolio</td>
<td>30%</td>
</tr>
</tbody>
</table>

**Attendance & Participation:** Students will be required to attend classes and actively participate in discussions, as evidence through postings in the class’s WebCT learning management system and class attendance records.

**Research Assignments:** Students will be required to complete a series of 5 assignments dealing with specific aspects of the research process. All research assignments must be produced and formatted using Microsoft Word and should be accompanied by a brief log entry describing the process undertaken.

1. **Assignment 1**
   - Create a description the research question and thesis statement, including an identification of key concepts, synonyms, and related terms. (6%)

2. **Assignment 2**
   - Create an APA-formatted bibliography of 6 books located through the Cal Maritime, PHAROS and WORLDCAT catalogs that are directly relevant to the research question. Each source shall be accompanied with a brief statement indicating its unique relevance and importance to the project. (6%)

3. **Assignment 3**
   - Create an APA-formatted bibliography of 10 periodical sources (no more than 3 from popular sources) located through Cal Maritime databases that are directly relevant to the research question. Each source shall be accompanied with a brief statement indicating its unique relevance and importance to the project. (6%)

4. **Assignment 4**
   - Create an APA-formatted bibliography of 6 online sources located through Internet search engines, directories, or free-access databases. Each source shall be accompanied with a brief statement indicating its unique relevance and importance to the project. (6%)

5. **Assignment 5**
   - Produce an evaluation of the authority, purpose, accuracy, relevancy, and reasonableness of the 6 online sources located in assignment #4. (6%)

**Computing Assignments:** Students will be required to complete a series of 3 assignments dealing with the effective use of specific Microsoft Office applications.

1. **Assignment 1**
   - Use Microsoft Excel to create a spreadsheet which effectively organizes and displays data concerning annual tonnage statistics from the Port of San Francisco, the Port of Anchorage, and the Port of Halifax from 1998-2003, gathered from multiple online resources. The spreadsheet must include the use of at least one formula function. The finished document must be organized in a logical and clear manner. (10%)

2. **Assignment 2**
   - Use Microsoft FrontPage to design and post two linked web pages which provide an overview of an assigned issue related to information technology (i.e. plagiarism, digital divide, archiving the internet, etc.). The web pages must include at least 1 public-domain graphic, and one imbedded table demonstrating related statistics. All outside sources must be of high quality and cited in APA format. (10%)

3. **Assignment 3**
   - Create a 10-slide PowerPoint presentation on a topic of interest. Presentations must include a cohesive design template, slide transitions with consistent animation, at least one imbedded table, at least one imported public-domain graphic, and a bulleted list. All outside sources must be cited in APA format. (10%)

**Final Project/Research Portfolio:** Each student will be required to submit a logically-organized e-portfolio detailing the class experience, providing and organizational scheme for a mock research paper, and reflecting upon their personal research process. These portfolios will include:
Overall appearance & organization (5 points)
Table of contents (5 points)
Research question & description of issue (5 points)
Outline of proposed paper meeting WAC requirements (5 points)
Collection of class Research Logs & Minute Writings (5 points)
Collection of original and revised class assignments (20 points)
Properly formatted bibliography of high quality sources (50 points)
Self evaluation & course reflection (5 points)

GRADING BASIS: (Graded, Credit/No Credit, ABC/NC, No grade)

Graded

COURSE REQUIREMENTS

Class Format: Active-learning and problem-based-learning exercises will be frequently incorporated in class time, in order to provide students with ample opportunities to explore the relevance of programs and topics covered to their ongoing studies.

The class will be held in a computer lab, but students will be required to submit and manage all assignments electronically through the WebCT learning management system, as a means of preparing them to succeed in a digital learning environment. Students will also be required to demonstrate class participation through WebCT interactions, which will help to strengthen their understanding of ethical communication practices in an online venue. Assignments and learning logs will be structured in such a way as to encourage students’ self-reflection on the research process and development of technological savvy.

Sample Course Schedule and Assignments: (Fall 2007)

<table>
<thead>
<tr>
<th>Date</th>
<th>Theme</th>
<th>Today’s Class</th>
<th>Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/5</td>
<td>Introduction</td>
<td>Syllabus review &amp; ICT Survey</td>
<td><strong>Read:</strong> Excerpt from “Digital Literacy” by Esther Dyson</td>
</tr>
<tr>
<td>9/7</td>
<td>ICT Survey</td>
<td></td>
<td><strong>Due:</strong> Reviewed syllabus, signed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Read:</strong> “Information Anxiety” pg. 1-7 by Richard Saul Wurman</td>
</tr>
<tr>
<td>9/12</td>
<td>Information Environment</td>
<td>The problem of information in modern society. What is data smog?</td>
<td><strong>Read:</strong> “How Much Information: Summary of Executive Findings” by the School of Information Systems at UC Berkeley</td>
</tr>
<tr>
<td>9/14</td>
<td>WebCT &amp; Organization</td>
<td>Making the most of online learning</td>
<td><strong>Read:</strong> “LATCH: The Five Ultimate Hatracks” by Richard Saul Wurman</td>
</tr>
<tr>
<td></td>
<td></td>
<td>How does society organize all information? LATCH</td>
<td><strong>Due:</strong> Completed WebCT survey: What’s an expert?</td>
</tr>
<tr>
<td>9/19</td>
<td>Research Process</td>
<td>Why do we research? Crafting the question</td>
<td><strong>Read:</strong> “Peer Review” article on Wikipedia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scholarly Publication Cycle – Who’s Making All the Information?</td>
<td><strong>Due:</strong> Completed WebCT survey: What’s an expert?</td>
</tr>
<tr>
<td>9/21</td>
<td>MS Word</td>
<td>Document formatting, tables and editorial tools</td>
<td><strong>Due:</strong> Research Assignment 1: Breaking Down the Research Question</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Read:</strong> “Boolean Searching” and “Search Engine Math” on searchenginewatch.com</td>
</tr>
<tr>
<td>9/26</td>
<td>MS Word</td>
<td>In-class work</td>
<td><strong>Read:</strong> CQ Researcher Report: “Copyright and the Internet”</td>
</tr>
<tr>
<td>9/28</td>
<td>Commercial Information Systems</td>
<td>Introduction to article databases, Boolean Logic &amp; Field Searching</td>
<td><strong>Due:</strong> Research Assignment 2: Monograph Bibliography</td>
</tr>
<tr>
<td>10/3</td>
<td>Commercial</td>
<td>Search Tricks (nesting, truncation, wildcard, phrase)</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Course</td>
<td>Assignment/Topic</td>
<td>Due</td>
</tr>
<tr>
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<td>----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>10/5</td>
<td>Information Systems</td>
<td>In-class work</td>
<td>Read: “The Digital Divide: Where We Are Today” from Edutopia</td>
</tr>
</tbody>
</table>
| 10/10      | Internet                | What’s an Internet? (function, evolution, protocols)                              | Due: Research Assignment 3: Periodical Bibliography, submitted via WebCT  
Read: “A Brief overview of the Internet” by Walt Howe                     |
| 10/12      | Internet Search Systems | Basic Internet Searching                                                           | Due: WebCT discussion posting: “Life without the net”                |
| 10/17      | Internet Search systems | Advanced Internet Searching                                                       |                                                                      |
| 10/19      | FrontPage               | Operations                                                                        | Due: Research Assignment 4: Internet Bibliography, submitted via WebCT |
| 10/24      | FrontPage               | Operations                                                                        |                                                                      |
| 10/26      | FrontPage               | Work on Website                                                                   |                                                                      |
| 10/30      | FrontPage               | Work on Website                                                                   | Read: “Chapter 1: Web of Deception” available on course reserve      |
| 11/2       | Evaluation              | Why evaluate? Basic criteria                                                      | Due: WebCT discussion posting: “Becoming the Net”                    
Read: “How E-Commerce, Online Consumer, and E-mail Fraud Rely On Misdirection and Misinformation,” by Lysbeth B. Chuck. |
| 11/7       | Evaluation              | Scope of information systems                                                      |                                                                      |
| 11/9       | PowerPoint              | Operations                                                                        | Due: Computer Assignment: Websites                                   |
| 11/14      | PowerPoint              | Operations / design suggestions                                                   | Due: Research Assignment 5: Evaluation, submitted via WebCT           |
| 11/16      | PowerPoint              | Work on presentations                                                              |                                                                      |
| 11/28      | Excel                   | Operations                                                                        | Due: WebCT discussion posting: “Life on break without technology”    |
| 11/30      | Excel                   | Operations                                                                        | Due: Computer Assignment: PowerPoint, submitted via WebCT            |
| 12/5       | Excel                   | Operations                                                                        |                                                                      |
| 12/7       | Excel                   | Work on spreadsheet                                                                | Due: WebCT discussion posting: de.li.cious.com                       |
| 12/12      | Excel                   | Work on spreadsheet                                                                |                                                                      |
| 12/14      | Wrap-up                 | Post-test / Instructor Assessment                                                 | Due: Computer Assignment: Excel                                      |
| 12/22      | Wrap-up                 | E-portfolios DUE on date of scheduled course final                                | E-portfolios DUE                                                     |

**GRADUATION REQUIREMENT**

Initially, this course would act as an alternative to the current COM 100 and by default would fulfill a requirement for students in the majors of Marine Transportation, Marine Engineering, Facilities Engineering, Business Administration, and Global Studies and Maritime Affairs.

**FISCAL IMPLICATIONS**
Instruction would be handled by Library faculty and would have no negative fiscal impact on outside programs. Hiring of any necessary adjunct faculty will be handled by the Library Director.

SPECIAL COMMENTS/INSTRUCTIONS
This course would need to be offered in one of the school’s computing labs to allow students to directly apply many of the concepts covered. The computers will need Microsoft FrontPage, Excel, PowerPoint, and ICT Browser.

COURSE ASSESSMENT PLAN
Internal pre-and-post testing designed by the instructor in conjunction with the Campus Assessment Coordinator could be used to assess both the student perception of course worth and student retention of course learning outcomes. These assessment efforts would help to define skills of incoming freshmen and adjust course content to meet the evolving needs of Cal Maritime students.

Additionally, the Information & Communication Technology (ICT) assessment tool created by the ETS could be implemented through this course to provide a consistent sampling of incoming freshmen students’ skills related to information fluency and computing. The data from this assessment instrument could be used not only to influence the continuing development of class content to suit the needs of incoming students, but as a baseline for ongoing external program assessments.

ADDITIONAL COMMENTARY
This course would combine an introduction to information fluency with instruction in the use of basic application software, satisfying a need for skills that are receiving increased attention from both discipline-specific and institution-wide accrediting bodies. The format of this course would promote student retention of specific skills by providing opportunity for immediate application and prolonged reflection on the research process.

Uniformly introducing students to these competencies in the freshmen year would not eliminate a need for progressive information fluency instruction to be integrated within upper-division courses. Instead, this course would provide a solid platform upon which to build advanced search skills particular to individual majors and disciplines. For instance: locating and interpreting legal documents, patent searching, statistical literacy, identifying engineering design regulations, interpreting financial reports, etc.

Students who have mastered these core competencies at the freshmen level will likely regard assignments within their majors with increased sophistication. A high confidence level in their ability to locate, access, and evaluate a broad range of resources could eliminate perceived barriers and allow students greater freedom to independently evaluate areas of discipline-specific interest.
CSU Information Competence Initiative Proposal

Using ICT Literacy Assessment to Evaluate and Enhance Information and Communication Technology Initiatives at the California Maritime Academy

Funds Requested: $12,350

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California Maritime Academy
200 Maritime Academy Drive
Vallejo, CA 94590
www.csum.edu

Submitted: May 1, 2006
Abstract

The California Maritime Academy will apply the ICT Literacy Assessment to both evaluate and enhance existing programs. The Advanced ICT instrument will be used to establish a pre- and post-assessment of Cal Maritime’s information fluency, technology and communications programs. Data from the ICT Literacy Assessment also will be used to create rubrics and embedded assignments, in order to enrich Cal Maritime’s first-year experience and strengthen curricula across the disciplines.

To evaluate these programs, the ICT Literacy Assessment tool will be administered to all freshmen and seniors in the fall of 2006, with two objectives: to establish a pre-test baseline for the class of 2010 (current freshmen), and to assess current technical and information literacy levels in the class of 2007 (current seniors). Subsequently, the ICT Literacy Assessment will be re-administered to the senior class in 2010, allowing us to directly track the development of information and communication technology skills over four years. These measures will provide Cal Maritime with the quantitative data necessary to evaluate campus-wide information fluency, technical literacy and communication literacy initiatives. Consequently, these assessments will be invaluable to the development, implementation and ongoing assessment of a cohesive framework of information, technical and communication literacies learning objectives currently in development at Cal Maritime. After this first administration of the ICT to freshmen and seniors in 2006, it will be re-administered on a biennial basis to both demographic groups.

Simultaneously with these evaluation efforts, Cal Maritime will enhance campus programs by making use of existing ICT Literacy Assessment data. Currently, all Cal Maritime freshmen, except mechanical engineering majors, are given an orientation to office computing applications and basic technologies through COM 100: Introduction to Computers, which is taken during the fall semester. Mechanical Engineering majors are provided with similar instruction via ENG 120: Introduction to Engineering Communications, which also is taken during the fall semester. These two courses are intended to provide students with a survey of technologies that will be of immediate use to them in their undergraduate education, and constitute the only venue for introducing these concepts at the freshman level.

However, the existing format of these classes was established before educational hardware and software became standardized. As a result, many believe that today’s college freshmen are less in need of basic instruction in the Microsoft Office suite than an understanding of technology as a vehicle for fundamental communication and information management skills. Score reports from previous ICT Literacy Assessment administrations in spring 2005 and spring 2006 will be evaluated and judiciously used to create new assignments and grading rubrics with these skills in mind. These assignments will then be implemented into all sections of COM 100 and ENG 120 during the 2006-7 academic years. Cal Maritime will also conduct independent surveys of students and faculty to assess the effectiveness of the new assignments. In spring of 2007, these surveys, along with data gathered from the latest administration of the ICT Literacy
Assessment, will help Cal Maritime craft updated learning objectives for COM 100 and ENG 120.

To encourage student retention of information competencies garnered in the freshman-year experience, similar assignments of progressive difficulty will be embedded vertically through select courses in each of Cal Maritime’s six majors. The nature of these assignments and their effectiveness in embedding components of information and communication technology instruction will be continually evaluated in light of data gathered through current ICT administrations. These efforts reflect Cal Maritime’s commitment to the integration of campus communications, technology and information fluency initiatives.

Previous information competence grants have allowed Cal Maritime to develop and hone its existing integrated information fluency program (www.csum.edu/library/infofluency/). Funds allocated through the 2006-7 grant will allow Cal Maritime to systematically apply the ICT Literacy Assessment to evaluate and strengthen its current information and communication literacies programs.

This assessment and instructional design can serve as a model for other campuses and information competence initiatives.

**Project Activities**

**Planning and Creating (Summer 2006):**

1. The Communication Literacies Specialist and Information Fluency Librarian will collaborate to identify and refine common learning objectives in communication literacies. The Information Fluency Librarian, Communication Literacies Specialist, and COM 100 and ENG 120 instructors then will collaborate to create no fewer than three course-appropriate assignments requiring students to demonstrate technical competency through scenario-based tasks. These tasks will require students to independently (or as members of small groups) use technology to demonstrate information management skills such as the abilities to define, access, manage, integrate and evaluate information.

2. The Information Fluency Librarian will collaborate with instructors in COM 100, ENG 120, and the upper-division, discipline-specific ethics courses to schedule ICT test sessions early in the fall 2006 semester.

**Testing (Fall 2006):**

1. The Information Fluency Librarian and Communication Literacies Specialist will administer the Advanced ICT Literacy Assessment as a pre-test for all
incoming freshmen through all sections of COM 100 and ENG 120 in the fall of 2006, as well as upper-division courses.

2. The Information Fluency Librarian and Communication Literacies Specialist will oversee the implementation of new assignments within COM 100 and ENG 120. They will act as assignment contacts and provide supplementary instruction as necessary for students and faculty.

3. The Information Fluency Librarian will conduct independent assessment of instructor and student satisfaction with assignments and will work with the Communication Literacies Specialist, select faculty, and Campus Assessment Coordinator to fine-tune methodology in the fall of 2006. Rubrics will be created at this time for best practices in assessing student performance and creating future assignments that effectively merge information fluency, communications Literacies and technical competency.

Data Analysis and Reporting:

1. When data from the ICT Literacy Assessments and faculty/student surveys become available, the grant applicants will meet to analyze the findings and discuss implications for future information and communication technology instruction on campus. This will include the updating of learning objectives for COM 100 and ENG 120.

2. The grant applicants will analyze data gathered from these assessments and create a report detailing the methodology and results of the ICT Literacy Assessment instrument.

3. A copy of the report, grant application and project description available on the Cal Maritime website.

4. The Information Fluency Librarian and Communication Literacies Specialist will disseminate information about the results to campus faculty and beyond. They will make presentations about the plan on campus and at the 2007 Writing Across the Curriculum Conference. They will also write up the results for publication; ideally, in CSU’s Exchanges journal.

5. In the spring of 2009, the grant applicants will compare data obtained from junior-level testing within select majors to the score reports of fall 2006 freshmen. This data will provide insight into the effectiveness of current information fluency, communication and technology initiatives, and will be used to determine future growth potential of these programs.

Timeline

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<tr>
<th>Time Period</th>
<th>Activity</th>
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<td>Summer 2006:</td>
<td>Planning and Creating</td>
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<td>Fall 2006:</td>
<td>Testing</td>
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<tr>
<td>Spring/Summer 2007:</td>
<td>Data Analysis and Reporting</td>
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Population

711 students are currently enrolled at Cal Maritime. A rough\(^1\) total of 392 students, or 61% of the population, will participate in the fall ICT Literacy Assessment.

Budget

$7,350 will be needed to administer the ICT Literacy Assessment to 392 students. $5,000 will be used over the life of the grant as a stipend for approximately 152 hours of work ($26/hour) divided between the Information Fluency Librarian and the Coordinator of Communication Literacy.

22 hours = ICT Assessment administration
60 hours = Creating and embedding assignments in COM 100, ENG 120, and upper-division courses
70 hours = Analyzing and reporting results

Qualifications

*Mindy Drake, Information Fluency Librarian*
Masters Degree in Library and Information Studies; former lecturer in information literacy at the University of Rhode Island; currently responsible for developing and coordinating the information fluency program at Cal Maritime; teaches virtually all course integrated information fluency sessions throughout the curriculum.

*Dr. Julie Chisholm, Communication Literacies Specialist.* Ph.D. in literature and writing; ten years of teaching experience; former director of computers and writing at the University of Houston Writing Center; author of a book on computer literacy; current writing across the curriculum coordinator at Cal Maritime; teacher of all communication courses at Cal Maritime.

*Dr. Paul Jackson, Director of Professional and Institutional Efficacy*
ScD in Ocean Engineering from Massachusetts Institute of Technology; faculty member at CMA for 11 years; teaching in Engineering Technology and Department Chair for 2 years; current Director of Professional and Institutional Efficacy, responsible for Assessment, Program Review and Faculty Development; past research area includes air pollution from ships; current research includes assessment of technical education.

Letters of Support

See attached letters from Sciences and Mathematics Department Chair Lloyd Kitazono, Academic Dean Stephen Kreta, and Vice-President of Academic Affairs Don Zingale.

\(^1\) Number of entering freshmen is based on 2006 figures.
April 28, 2006

Paul Adalian
California State University, Channel Islands

Re: Information Competence Initiative Proposal

Dear Paul Adalian and Review Committee:

We would like to commend our Information Fluency, Communications Literacy, and Campus Assessment Programs for their initiative in assessing and enhancing student learning in information and communication technology. This is a highly important collaboration that will be most useful in helping Cal Maritime to add quality to our programs and graduate information savvy students.

The Academy is very much in support of this proposal and is happy to provide the facilities, time, and encouragement to accomplish its goals. Please let us know if there is anything that we can do to help with this important initiative.

Sincerely,

Don Zingale
Vice President
Academic Affairs

Stephen Kreta
Academic Dean
April 28, 2006

Paul Adalian  
California State University, Channel Islands

Re: Information Competence Initiative Proposal

Dear Paul Adalian and Review Committee:

The Department of Sciences and Mathematics is very much in support of this grant proposal and is excited to participate in an initiative which will support the continued assessment and development of technology instruction on campus.

We will be pleased to work with the grant applicants to integrate elements of information and communication technology instruction within existing COM 100 courses and throughout students’ academic careers.

Sincerely,

Lloyd Kitazono  
Chair, Department of Sciences and Mathematics