GENERAL EDUCATION ASSESSMENT REPORT

I. Background Information

1. General Education Strand Assessed (check one).

- ☐ **Writing**: Develop, organize, and express thoughts in writing using Standard English.
- ☐ **Speech**: Speak in an organized and effective manner and listen critically and with comprehension.
- ☐ **Mathematics**: Understand the applications and perform computations using the concepts of college-level mathematics.
- ☐ **Natural Sciences:** Understand principles and applications of modern science.
- ☐ **Social and Behavioral Science**: Understand principles and applications of social and behavioral science in exploring the dynamics of human behavior.
- ☐ **Arts and Humanities:** Understand and apply information related to the nature and variety of the human experience through personal and cultural enrichment.
- ☐ **Critical Thinking:** Demonstrate skill in analyzing, synthesizing and evaluating.
- ☒ **Computer and Information Literacy:** Demonstrate the skill to use computer information systems including using software and the ability to locate, retrieve, and evaluate networked information.

Descriptions of strands from WCC Board Policy #3045. http://www.wccnet.edu/trustees/policies/index.php?policy=3045

2. Semester(s) assessment data was collected (check all that apply):
   - ☒ Fall 20_____
   - ☒ Winter 20_____
   - ☒ Spring/Summer 20_____

3. Semester assessment report was prepared (check one):
   - ☐ Fall 20_____
   - ☒ Winter 20 2009
   - ☐ Spring/Summer 20_____

4. Assessment tool used for this assessment (check all tools that apply):

	Used for previous assessment?	
☐ CAAP test	☐ yes	☐ no
☐ Survey	☐ yes	☐ no
☐ Prompt	☐ yes	☐ no
☐ Capstone course	☐ yes	☐ no
☐ Common final or test questions	☐ yes	☐ no
☐ Transfer data	☐ yes	☐ no
☒ Other:	☐ yes	☒ no
☐ Other:	☐ yes	☐ no
☐ Other:	☐ yes	☐ no
PLEASE SEND A COPY OF THE TOOL(S) AND SCORING RUBRIC(S) USED ALONG WITH THIS REPORT.		

5. Please list the course(s) in which this tool was administered.

   This tool was administered to any student requesting computer and information literacy exit assessment.

6. Describe the total population of students eligible to be assessed and how this group was selected for assessment.

   The population was all students requesting the test.

7. Indicate the number of students assessed.

   A total of 576 students were assessed.

II. Results

1. If applicable, briefly describe the changes that were implemented as a result of the previous assessment.

   N/A

2. State the outcomes (verbatim) that were assessed for the General Education strand. (General Education Outcomes are available through the following link):
   http://www.wccnet.edu/departments/curriculum/progdata.php?levelone=genedassessment

   1. **Use computer software to perform basic tasks.**
   2. **Identify concepts related to computer technology and its use.**
   3. **Identify criteria for evaluating online information and its legal and ethical use.**

3. Briefly describe assessment results based on data collected, demonstrating the extent to which students are achieving each of the learning outcome listed above. ***Please attach a summary of the data collected to the back of this document. DO NOT INCLUDE STUDENT NAMES, NUMBERS OR OTHER IDENTIFYING INFORMATION.***

   The average scores of all questions for each of the three outcomes exceeded the standard of success. See below.

4. For each outcome assessed, indicate the standard of success used, and the percentage of students who achieved that level of success. ***Please attach the rubric/scoring guide used for the assessment to the back of this document***

   Exam questions/responses that support each outcome were identified and averaged. The standard of success is that the average score for each outcome will be 75% or better.

   For outcome #1 the average score was 86%.
   For outcome #2 the average score was 89%.
   For outcome #3 the average score was 83%.

5. Describe the areas of strength and weakness in students' achievement of the learning outcomes shown in assessment results.

Strengths: **The standard of success was met for each area.**

Weaknesses: **Although the standard of success was met for all outcomes, there were several areas in which students scored poorly.**

The most missed outcome #1 topics were:
- **Using EXCEL**
- **Saving/renaming a file**
- **Renaming a folder**

The most missed outcome #2 topics were:
- **Computer interface**
- **Automatic programs, i.e. robots and spiders**

The most missed outcome #3 topics were:
- **Copyright law**
- **Computer ethics**

See attached data for item analysis details.

III. Changes influenced by assessment results

1. If weaknesses were found (see II.5 above) or students did not meet expectations (see II.4 above), describe the action that will be taken to address these weaknesses.

   Both the method and the tool used for computer and information literacy are being re-evaluated.

2. Identify any other intended changes that will be instituted based on results of this assessment activity (check all that apply). Describe changes and give rationale for change.

   ☐ Master syllabi
   Rationale:

   ☐ Curriculum
   Rationale:

   ☐ Course syllabi
   Rationale:

   ☐ Course assignments
   Rationale:

   ☐ Teaching methodology
   Rationale:

   ☒ Other: **Both the method and the tool used for computer and information literacy are being re-evaluated.**

   Rationale: **Although the majority of students completing this assessment were successful, there is a concern that the tool is not adequately measuring computer and information literacy.**

Furthermore, the tool is currently administered as an exit test. However, it might be more appropriate to assess computer and information literacy when the student is admitted to the college.

3. What is the timeline for implementing the actions identified in III.1 and III.2 above?

   Changes should be in place by Winter 2010.

IV. Future plans

1. Describe the extent to which the assessment tools used were effective in measuring student achievement of learning outcomes for this general education strand.

   Although the majority of students completing this assessment were successful, there is a concern that the tool is not adequately measuring computer and information literacy.

2. If the assessment tools were not effective, describe the changes that will be made for future assessments.

   Both the method and the tool used for computer and information literacy are being re-evaluated.

Submitted by:

Preparer:	**Rosemary Rader** **Lisa Veasey** *Print*	Lisa Veasey *Signature*	**Date:**	**3/26/09**
Dept Chair:	*Print*	*Signature*	**Date:**	4/9/09
Dean:	*Print*	*Signature*	**Date:**	4/1/09

Please return completed form and attachments to the Office of Curriculum & Assessment, SC 247 and e-mail an electronic copy to sjohn@wccnet.edu

logged 4/10/09 sjv

GENERAL EDUCATION ASSESSMENT REPORT

I. Background Information

1. General Education Strand Assessed (check one).

☐ **Writing**: Develop, organize, and express thoughts in writing using Standard English.

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☐ **Critical Thinking:** Demonstrate skill in analyzing, synthesizing and evaluating.

☒ **Computer and Information Literacy:** Demonstrate the skill to use computer information systems including using software and the ability to locate, retrieve, and evaluate networked information.

Descriptions of strands from WCC Board Policy #3045. http://www.wccnet.edu/trustees/policies/index.php?policy=3045

2. Semester(s) assessment data was collected (check all that apply):
   - ☐ Fall 20_____
   - ☒ Winter 2001 through Fall 2006
   - ☐ Spring/Summer 20_____

3. Semester assessment report was prepared (check one):
   - ☒ Fall 2007 – Winter 2008
   - ☐ Winter 20_____
   - ☐ Spring/Summer 20_____

4. Assessment tool used for this assessment (check all tools that apply):

	Used for previous assessment?
☐ CAAP test	☐ yes ☐ no
☐ Survey	☐ yes ☐ no
☐ Prompt	☐ yes ☐ no
☐ Capstone course	☐ yes ☐ no
☐ Common final or test questions	☐ yes ☐ no
☐ Transfer data	☐ yes ☐ no
☒ Other: SAM2003 ProGrader test	☒ yes ☐ no
☐ Other:	☐ yes ☐ no
☐ Other:	☐ yes ☐ no
PLEASE SEND A COPY OF THE TOOL(S) AND SCORING RUBRIC(S) USED ALONG WITH THIS REPORT.	

5. Please list the course(s) in which this tool was administered.

6. Describe the total population of students eligible to be assessed and how this group was selected for assessment.

7. Indicate the number of students assessed. 759

II. Results

1. If applicable, briefly describe the changes that were implemented as a result of the previous assessment.

2. State the outcomes (verbatim) that were assessed for the General Education strand. (General Education Outcomes are available through the following link):
http://www.wccnet.edu/departments/curriculum/progdata.php?levelone=genedassessment
   1. Identify major computer and networking hardware and software applications.
   2. Apply computer office, networking, and operating system software to perform common personal and business tasks.
   3. Evaluate electronic information for accuracy, authority, currency, objectivity and coverage.
   4. Protect themselves and their computer from common hazards, including fraud, data loss, identity theft, and malicious software.

3. Briefly describe assessment results based on data collected, demonstrating the extent to which students are achieving each of the learning outcome listed above. ***Please attach a summary of the data collected to the back of this document. DO NOT INCLUDE STUDENT NAMES, NUMBERS OR OTHER IDENTIFYING INFORMATION.***

4. For each outcome assessed, indicate the standard of success used, and the percentage of students who achieved that level of success. ***Please attach the rubric/scoring guide used for the assessment to the back of this document***

5. Describe the areas of strength and weakness in students' achievement of the learning outcomes shown in assessment results.

   Strengths:

   Weaknesses:

III. Changes influenced by assessment results

1. If weaknesses were found (see II.5 above) or students did not meet expectations (see II.4 above), describe the action that will be taken to address these weaknesses.

2. Identify any other intended changes that will be instituted based on results of this assessment activity (check all that apply). Describe changes and give rationale for change.

   ☒ Master syllabi
   Rationale: evaluate outcomes and objectives for currency and adequacy.

   ☒ Curriculum
   Rationale: examine courses in the Bulletin that fulfill the Gen Ed Computer and Information Literacy requirement for possible revision and changes to outcomes and objectives.

   ☐ Course syllabi
   Rationale:

   ☐ Course assignments
   Rationale:

   ☐ Teaching methodology
   Rationale:

   ☒ Other: SAM2003
   Rationale: explore delivery and scoring system to determine if modifications can be made to:

   a. Provide more precise information, linking success and failure rates to specific outcomes and objectives

   b. Provide a variety of questions and tasks so that security issues can be addressed.

3. What is the timeline for implementing the actions identified in III.1 and III.2 above?

IV. Future plans

1. Describe the extent to which the assessment tools used were effective in measuring student achievement of learning outcomes for this general education strand.

2. If the assessment tools were not effective, describe the changes that will be made for future assessments.

Submitted by:

Preparer: _____ _____ **Date:** _____
Print *Signature*

Dept Chair: _____ _____ **Date:** _____

	Print	*Signature*	
Dean:	*Print*	*Signature*	**Date:**

Please return completed form and attachments to the Office of Curriculum & Assessment, SC 247 and e-mail an electronic copy to sjohn@wccnet.edu

ASSESSMENT REPORT

General Education: Computer and Information Literacy

Submitted by:
Laurence Krieg, *Professional Faculty, Computer Information Systems*
and
Sandra McCarthy, *Professional Librarian, Richard W. Bailey Library*
2006-11-20

COMPUTER AND INFORMATION LITERACY REQUIREMENT

Following is the text of the requirement as published in the *Washtenaw Community College Bulletin*, Volume 36 Number 3, page 69:

> Associate Degree students must demonstrate basic computer skills and knowledge. Courses taken at other institutions, work experience, or transfer credit will not satisfy this requirement.
> Students can fulfill this requirement through either of the following options:
>
> 1. Pass the Computer and Information Literacy test with a score of 70% or higher. Students can take the test two times. If a passing score is not attained, CIS 099 must be taken and passed with a "C" or better.
>
> or
>
> 2. Pass, with a "C" or higher, specified courses that incorporate the Computer and Information Literacy objectives. These courses might be taken as part of the degree requirements for a particular program. The courses include:
>   a. CIS 099 Computer Literacy;
>   b. CIS 100 Introduction to Software Applications;
>   c. CIS 110 Introduction to Computer Information Systems.
>
> Students who are seeking an associate degree should take the Computer and Information Literacy test at their earliest opportunity, preferably upon admittance to the College. Some courses and programs require students to have passed this test before enrolling. The test is administered in the Testing Center. The schedule for testing can be found in the Academic Class Schedule.

The "General Education Strand Information for the Curriculum Assessment Initiative" lists the following:

> **Computer and Information Literacy:** Demonstrate the skill to use computer information systems, including software, and the ability to locate, retrieve, and evaluate networked information.

Computer Literacy is the only requirement of the eight General Education requirements with no outcomes listed.

OUTCOMES

Objectives for the General Education Computer Literacy requirement were defined during the period 1999-2001, and disseminated by the Vice President for Instruction in a memorandum dated March 22, 2001. That document is attached as Appendix A, and is also available on line at: http://www.wccnet.edu/departments/curriculum/file.php?loc=6&file=Computer%20and%20Information%20Literacy.doc

The following outcomes are defined for future reference:

1. Identify major computer and networking hardware and software components
2. Apply computer office, networking, and operating system software to perform common personal and business tasks
3. Evaluate electronic information for accuracy, authority, currency, objectivity, and coverage
4. Protect themselves and their computer from common hazards, including fraud, data loss, identity theft, and malicious software

All the outcomes are to be assessed by means of a common examination that includes both conceptual and skills-based testing. The "Assessment Tool" and "Recommendations" sections discuss methodology issues in more detail.

ASSESSMENT TOOL

The tool currently available for assessment is the examination mentioned in the *Bulletin* article quoted above. It consists of 139 true/false questions, multiple choice questions, and performance tasks, scored digitally by the SAM2003 ProGrader system (http://samcentral.course.com/default.cfm), a product of Thomson Course Technology, Boston, Massachusetts.

WCC's version of the test, the SAM Challenge (http://samcentral.course.com/sam_challenge.cfm), has been administered for the past approximately five years, and data have been kept on student scores during that time period. These data are listed in numerical and graphical form in Appendix B.

ANALYSIS OF DATA

Scoring data (Appendix B) includes only the total score for the test achieved by each of 759 students taking the test between March 2001 and October 2006. If a student failed the test on the first attempt but passed on the second, the original score is not recorded.

Data indicate a 95% passing rate. Viewing this data alone, the Computer and Information Literacy requirement has been met with overwhelming success.

However, the precision of the data leaves a lot to be desired. No detail on meeting specific objectives can be extracted from the recorded scores. Accordingly, we propose more effective and precise data recording and analysis in the following section.

RECOMMENDATIONS

Before improvements can be made in the measurement and teaching of computer and information literacy, more precise, fine-grained data must be extracted from the examination. Further, the objectives and examination themselves must be evaluated for currency, and exam questions must be refreshed to provide better security.

Accordingly, we recommend the following:

1. Each of the outcomes and objectives be evaluated for currency and adequacy
2. The examination delivery and scoring system be further explored and modified to provide
    a. More precise information, linking success and failure rates to specific outcomes and objectives; and
    b. A variety of questions and tasks so that security issues can be addressed
3. The specific questions and tasks on the exam be re-evaluated and updated
4. Courses listed in the *Bulletin* as fulfilling the General Education Computer and Information Literacy requirement be revised and assessed in light of any changes in outcomes and objectives.

TIMELINE

Task	Completion
Examination of Outcomes and Objectives	2007-01
Exploration of Examination Delivery and Scoring Options	2007-05
Evaluation and Updating of Questions and Tasks	2007-08
Revision of Courses Listed in the *Bulletin*	2008-08

APPENDIX A

Computer and Information Literacy
General Education Requirement

MINIMUM COMPETENCIES IN COMPUTER & INFORMATION LITERACY

FOR GENERAL EDUCATION EXIT/GRADUATION REQUIREMENTS

APPROVED MARCH, 2001

SKILL BASED KNOWLEDGE*

1. **Identify Major Computer Hardware and Software:** Students should be able to identify major computer hardware and software.

2. **Word Processing Skills:** Students should be able to perform the following word processing skills:
   - Create/Edit, Cut/Paste, Save/Print
   - Center, Justify, R-L Alignment, Paragraph, Spell Check, Name & Save a File

3. **Use a Browser to Navigate the Internet:** Students should be able to use a browser to navigate the Internet and should demonstrate the capability of doing the following tasks:
   - Identify the Uses of Internet/World Wide Web
   - Find Information
   - Identify Search Engines
   - Use a Subject Directory
   - Create and Organize Bookmarks

4. **E-mail:** Students should demonstrate a knowledge of how to perform the following basic e-mail tasks:
   - Send & Receive Mail
   - Reply to, Reply all, Forward Mail
   - Attach a File
   - Use an Address Book

5. **File Management:** Students should be able to move/download/create/find and copy files.

6. **Information Evaluation:** Students should be able to demonstrate knowledge of how to evaluate electronic information for accuracy, authority, currency, objectivity, and coverage

*Skill Based Knowledge: The testing of computer and information literacy skills may be accomplished by requiring the student to actually complete tasks on his or her computer in the testing facility. Actual computer applications or animated simulations of computer applications may be used for this purpose.

CONCEPTUAL KNOWLEDGE**

1. **Spreadsheet Applications:** Students should be able to demonstrate knowledge of the typical uses of spreadsheet applications. Such uses may include, among other things, the organization and manipulation of financial, statistical, or scientific data. [Students may also be required to show an understanding of how spreadsheets are organized into columns, rows, and cells.]

2. **Database Applications:** Students should be able to demonstrate an understanding of database applications as electronic filing systems for the query/retrieval of desired pieces of data from large data sources. [Knowledge of the organization of information by databases into records and fields may be required.]

3. **Networks:** Students should be able to recognize a network as a group of two or more computer systems linked together for the purposes of sharing print, data or other resources.

4. **Servers:** Students should be able to recognize that servers are special computers or devices on a network that are responsible for the management of network resources.

5. **Operating Systems:** Students should demonstrate a basic understanding that the operating system is software that is responsible for basic computer tasks, such as recognizing input from the keyboard, sending output to the display screen, and keeping track of files and directories on disk drives.

6. **Drives/Removable Media:** Students should understand that drives are storage devices that read data from and write data onto a disk. Students should also be able to distinguish between hard drives, floppy drives, and other removable media such as CDROMs.

7. **File Systems:** Students should be able to demonstrate an understanding that file systems are used by the operating system and programs as a basic means to create hierarchical directories and files for the storage of data on computers.

8. **RAM:** Students should demonstrate an understanding that Random Access Memory is the "main" type of memory used to run computer programs. [Students should also be able to draw basic distinctions between RAM and Read Only Memory ("ROM").]

9. **Software Installation:** Students should be able to demonstrate a basic understanding of how software is installed on computers from CDROM and floppy media.

10. **Modems:** Students should be able to demonstrate an understanding of a modem as a communications device that allows computers to transmit data over telephone lines.

11. **Legal, Ethical, and Privacy Issues:** Students should demonstrate a basic understanding of software licensing, and copyright issues, and they should demonstrate a knowledge of the basic right of an employer to monitor Internet and email usage by employees.

12. **Security Issues:** Students should show a basic understanding of security issues that effect computer and network usage. Students should understand simple definitions of the terms encryption and filtering.

13. **URL:** Students should demonstrate an understanding that Uniform Resource Locators are the global addresses of documents and other resources on the World Wide Web.

14. **Viruses:** Students should understand that viruses are malicious computer programs that can destroy data and cause the malfunctioning of computers and computer systems. Students should also show a basic understanding of how computer viruses are spread.

15. **Presentation Software Applications:** Students should demonstrate knowledge of the basic purposes of presentation software.

16. **Error Messages and Prompts:** Students should be able to demonstrate an understanding of simple error messages and prompts and be able to demonstrate appropriate responses to such messages and prompts.

**Conceptual Knowledge: Questions in this portion of the Computer and Information Literacy Exam may direct a student to identify:

- What a particular application, device, etc. does;
- How a particular application, device, etc. functions and may be used; and/or
- Why a particular application, device, etc. is important.