| I. Back | ground 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. |
| \boxtimes | 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. |
| 2. Se | emester(s) assessment data was collected (check all that apply): Fall 20 Minter 2013 Spring/Summer 20 |
| 3. Se | emester assessment report was prepared (check one): Fall 2013 |
| 4. A: | ssessment 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: Critical Thinking Assessment Test (CAT) | ☐ yes ⊠ no |
| Other: | yes no |
| Other: | yes no |
| DI EASE SEND A COPY OF THE TOOLS) AND | |

PLEASE SEND A COPY OF THE TOOL(S) AND SCORING RUBRIC(S) USED ALONG WITH THIS REPORT.

The Critical Thinking Assessment Test (CAT) was developed by the Center for Assessment & Improvement of Learning at Tennessee Technological University with partial funding from the National Science Foundation TUES Program. The CAT test was administered to WCC students who met the established criteria during daily testing sessions held March 25, 2013 - March 29, 2013. Students were given two (2) hours to complete the test, though most students were done in about one hour. The test consisted of story problems with short answer essay questions. Testing data was gathered and secured until the scoring session could take place.

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On May 16, 2013, eleven faculty and staff members gathered to score the tests. Following the guidelines established for the CAT test scoring, these individuals scored an exam question, calibrated their scoring through discussion of their responses and then proceeded to score all of the responses within that test question. The test papers were rotated among faculty with two people scoring each response. If both faculty members agreed, the scoring was completed. If they did not concur, another member was asked to score the question until there was agreement.

Following the scoring, WCC sent the test booklets and scoring sheets back to the vendor for analysis. Not only does the vendor analyze the data, but they also perform an accuracy check of a subset of tests scored by the institution. WCC received a CAT Overview with descriptive statistics for CAT scores. Included were the institutional mean, demographic information and a breakdown of points awarded for each question. In addition, they reported on the skills assessed by the CAT questions, the institutional mean and the national mean for all other community colleges using the CAT test. WCC met or exceeded the national mean on each question and for the overall score.

In October 2013, we received notification that, based on the scoring accuracy check, our overall accuracy fell slightly outside of the allowable 5% margin of error with a 7.24% error. The feedback will be invaluable as we continue to use the CAT test. Based on the vendor's recommendation, we have adjusted our institutional mean by -2.24 points to fall within the 5% margin of error. See results below.

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

This tool was not administered in courses. Institutional Research provided us with a list of potential students to assess.

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

A student was eligible to be assessed if they met the following criteria:

- A. Student has passed at least one (1) general education course with a minimum grade of "D-" at WCC in the last five (5) years
- B. Student is currently enrolled in a program of study that leads to an associate degree (AA, AS, AAS)
- C. Student has not earned an associate degree (or higher)

Student Activities students and staff contacted the individuals on the list asking that they sign up for one of the five (5) testing sessions.

7. Indicate the number of students assessed.

We received responses for 87 students agreeing to take the test with 58 ultimately participating in the testing.

II. Results

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

None

2. State the outcomes (verbatim) that were assessed for the General Education strand. (General Education Outcomes are available through the following link):

- 1) The student will be able to categorize information or separate information into component parts. (Analysis)
- 2) The student will be able to recognize discrete elements of information as being related (for instance by subject or relevance to the task at hand). (Synthesis)
- 3) The student will be able to identify which information is relevant to the solution of a problem. (Evaluation)

TABLE 1 - SKILL AREAS ASSESSED BY THE CAT INSTRUMENT

Evaluating Information

- Separate factual information from inferences.
- Interpret numerical relationships in graphs.
- Understand the limitations of correlational data.
- Evaluate evidence and identify inappropriate conclusions.

Creative Thinking

- Identify alternative interpretations for data or observations.
- Identify new information that might support or contradict a hypothesis.
- Explain how new information can change a problem.

Learning and Problem-Solving

- Separate relevant from irrelevant information.
- Integrate information to solve problems.
- Learn and apply new information.
- Use mathematical skills to solve real-world problems.

Communication

- Communicate ideas effectively
- 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.*
 - WCC tested students who met the criteria identified in I.6 above. With the adjustment to compensate for the error of margin, WCC's institutional mean was <u>16.00</u>. The national mean for all other community colleges participating in the CAT test was 13.48.
- 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
 - According to the General Education assessment plan for critical thinking, the <u>Standard of Success</u> <u>was</u>: The assessment will be deemed successful if the WCC mean is equal to or exceeds one standard of deviation below the national mean.

With the adjustment to compensate for the error of margin, WCC's institutional mean was <u>16.00</u> with a standard deviation of 6.04. The national mean for all other community colleges participating in the CAT test was <u>13.48</u>. WCC students exceeded the overall national mean.

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

Strengths: Students did very well with evaluating and interpreting information and creative thinking.

Weaknesses: Students scored lower (though still above the national mean) on some of the questions related to problem-solving.

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. |

None

| 2. | y any other intended changes that will be instituted based on results of this assessment activity ll that apply). Describe changes and give rationale for change. |
|----|---|
| | Master syllabi Rationale: |
| | Curriculum Rationale: |
| | Course syllabi Rationale: |
| | Course assignments Rationale: |
| | Teaching methodology Rationale: |
| | Other: Assessment Plan Rationale: Align the student learning outcomes with the skill areas assessed so that more detailed information can be gathered. |

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

Prior to the next administration of the CAT test in winter 2016.

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.

It appears that the CAT test was an effective tool for measuring student achievement of learning outcomes. Minor clarification of the student learning outcomes would allow the college to collect and evaluate more detailed information about students' performance on critical thinking.

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

Submitted by:

Preparer: Michelle L. Garey wichelle Steves Date: 11-12-2014

Dept Chair: Date:

Dean: DEWA BATT Date: 11/12/14

Please return completed form and attachments to the Office of Curriculum & Assessment, SC 257.

Page 1 of 4

GENERAL EDUCATION ASSESSMENT REPORT

| Background Information | | | | | | | |
|--|---|-----------------------|-----------------------|---------------------------------|--|--|--|
| 1. General Education Strand Assessed (check one). | | | | | | | |
| Writing: Develop, organize, and express thoughts in | writing using Standa | rd Engli | sh. | | | | |
| Speech: Speak in an organized and effective manner | | _ | | ion | | | |
| Mathematics: Understand the applications and performathematics. | | | _ | | | | |
| Natural Sciences: Understand principles and applica | ations of modern scien | .ce. | | | | | |
| | 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 inform experience through personal and cultural enrichment. | ation related to the na | ture and | l variety of th | he human | | | |
| Critical Thinking: Demonstrate skill in analyzing, s | ynthesizing and evalu | ating. | | | | | |
| Computer and Information Literacy: Demonstrate using software and the ability to locate, retrieve, and | the skill to use comprevaluate networked in | ıter info formati | ormation syst | tems including | | | |
| Descriptions of str | rands from WCC Board Policy #304 | 5. <u>http://ww</u> y | v.wccnet.edu/trustees | s/policies/index.php?policy=304 | | | |
| Winter 2007 ☐ Spring/Summer 20 3. Semester assessment report was prepared (check one ☐ Fall 20 ☐ Winter 20 ☐ Spring/Summer 20 |): | | | | | | |
| 4. Assessment tool used for this assessment (check all t | ools that apply): | | | | | | |
| | Used for pro assessment? | | | | | | |
| CAAP test | | yes | no | | | | |
| Survey | | yes | no | _ | | | |
| Prompt | | yes | no | | | | |
| Capstone course | | yes | <u> no</u> | : | | | |
| Common final or test questions | | yes | no | <u> </u> | | | |
| Transfer data | | yes | no | _ | | | |
| Other: | | yes | no | 4 | | | |
| Other: | | yes | no | | | | |
| Other: | | yes | no | | | | |
| PLEASE SEND A COPY OF THE TOOL(S) AT ALONG WITH THIS I | | 'BRIC'(| S) USED | | | | |

5. Please list the course(s) in which this tool was administered. ENG 226, MTH 125, MTH 160, PHL 101, PHL 123

- 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. 132

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. Analysis: The student will be able to categorize information or separate information into component parts.
 - 2. Synthesis: The student will be able to recognize discrete elements of information as being related (for instance, by subject or relevance to the task at hand).
 - 3. Evaluation: The student will be able to identify which information is relevant to the solution of a problem.
- 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.

Percentage of students meeting outcomes: 52% of the WCC students assessed were above the national mean of 60.9. The WCC mean was 60.8, which met the standard of success for the assessment.

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

The standard of success for the assessment was that the WCC mean would be equal to or exceed one standard deviation below the national mean.

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

Strengths: The WCC students assessed were very close to the national mean for the exam and well within the standard of success.

Weaknesses: None were identified as the standard of success was achieved.

III. Changes influenced by assessment results

information may become available.

| | 1. | If weather ac | aknesses were found (see II.5 above) or students did not meet expectations (see II.4 above), describe tion that will be taken to address these weaknesses. |
|------|------------|---------------|---|
| | 2. | Identi | fy any other intended changes that will be instituted based on results of this assessment activity 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: Rationale: |
| | 3. | What | is the timeline for implementing the actions identified in III.1 and III.2 above? |
| ww.r | | | |
| 1V. | . Fu 1. | ture pla | ibe the extent to which the assessment tools used were effective in measuring student achievement of |
| | | | ng outcomes for this general education strand. |

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

The advantage of this tool over previous instruments used at the college is that it provides a national standard by which to compare WCC students. The drawback is that the exam at this time does not provide individual results for each outcome, but only an aggregate score. In the future, it is hoped that more refined

| Submitted by | Sub | mi | tte | d | DV: | : |
|--------------|-----|----|-----|---|-----|---|
|--------------|-----|----|-----|---|-----|---|

| Preparer: | Charles R. Johnson | - Ci | Date: | 10/31/07 |
|-------------|--------------------|-----------|-------|----------|
| | Print | Signature | | |
| Dept Chair: | Paulette Grotrian | | Date: | 10/31/07 |
| - | Print | Signature | | |
| Dean: | Bill Abernethy | | Date: | 10/31/07 |
| | Print | Signature | | |

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

| BAC | KGROUND INFORMATION |
|------------|--|
| I. | General Education area assessed (check one): |
| | Writing Speech Mathematics Natural Science Social and Behavioral Science Arts and Humanities Critical Thinking Computer and Information Literacy |
| II. | Semester assessment was administered (check one): |
| | Fall 20 Winter 2007 Spring/Summer 20 |
| III. | Assessment tool used (check one): PLEASE ATTACH A COPY OF THE TOOL AND SCORING RUBRIC USED. |
| | CAAP test Survey Prompt Other (please describe): |
| | Has this tool been used before? Yes No |
| | If yes, has this tool been altered since its last administration? If so, briefly describe changes made. |
| IV. MTH | Please list the course(s) in which this tool was administered: ENG 226, MTH 125, 160, PHL 101, and PHL 123 |
| V. | How many students were assessed? 132 |

| RES | ULTS |
|--------|---|
| I. | Briefly describe assessment results based on data collected for the general education area assessed, demonstrating to what extent students are achieving the |
| The le | learning outcomes as found in the catalogue description of that area (see attached). PLEASE ATTACH ANY DATA COLLECTED. earning outcomes for Critical Thinking have been defined in terms of the ability of ints to manage information in the activity of problem solving. The outcomes are: |
| | alysis: The student will be able to categorize information or separate information into onent parts. |
| | nthesis: The student will be able to recognize discrete elements of information as related (for instance by subject or relevance to the task at hand). |
| | aluation: The student will be able to identify which information is relevant to the on of a problem. |
| | andard of success for the assessment was that the WCC mean would be equal to or done standard deviation below the national mean. |
| II. | Based on the catalogue description of the general education area assessed, did students meet expectations of the learning outcomes of that area? Yes No |
| | stage of students meeting outcomes: 52% of the WCC students assessed were above the al mean of 60.9. The WCC mean was 60.8 which met the standard of success for the ment. |
| III. | What areas of strength and weakness in students' achievement of the learning outcomes of the assessed general education area (as stated in the catalogue) did assessment results show? |
| | ths: The WCC students assessed were very close to the national mean for the exam and rithin the standard of success. |
| Weakr | nesses: None were identified as the standard of success was achieved. |

| I. | If weaknesses were found (see III above) or students did not meet expectations, what action will be taken to address this? |
|----------------|--|
| II. | Identify any other intended changes that will be instituted based on results of this assessment activity (check all that apply). |
| | Master syllabi Rationale: |
| | Curriculum Rationale: |
| | Course syllabi Rationale: |
| | Course assignments Rationale: |
| | Teaching methodology Rationale: |
| | OtherRationale: |
| which provi | Was the assessment tool effective in measuring students' achievement of learning outcomes for this general education area? If not, why? The advantage of this tool previous instruments used at the college is that it provides a national standard by h to compare WCC students. The drawback is that the exam at this time does not ide individual result for each outcome but only an aggregate score. In the future, it is that more refined information may become available. |
| | |

| Submitted by: | |
|--|--|
| Name: Charles R. Johnson Date: 10/31/07 19/4/07 | |
| Department Chair: Paulette Grotrian Date: 10/31/07 12/6/07 | |
| Dean: Bill Abernathy Date: 10/31/07 | |

General Education Requirements (2003-04 College Catalogue, p. 61)

- 1. Writing: Develop, organize, and express thoughts in writing using Standard English.
- **2. Speech:** Speak in an organized and effective manner and listen critically and with comprehension.
- **3. Mathematics:** Understand the applications and perform computations using the concepts of college-level mathematics.
- 4. Natural Science: Understand principles and applications of modern science.
- **5. Social and Behavioral Science:** Understand principles and applications of social and behavioral sciences in exploring the dynamics of human behavior.
- **6. Arts and Humanities:** Understand and apply information related to the nature and variety of the human experience through personal and cultural enrichment.
- 7. Critical Thinking: Demonstrate skill in analyzing, synthesizing, and evaluating.
- **8. 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.

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General Education Strand Report: Critical Thinking

Strand Definition: Demonstrate skill in analyzing, synthesizing, and evaluating.

Rationale: WCC has devoted a great deal of effort in trying to find an effective method for the assessment of critical thinking. This has proven difficult as no specific courses are grouped under the critical thinking strand. It is rather contended that all general education courses at the college fulfill this requirement. As such, the outcomes defined for this strand as well as the assessment method will need to be content neutral. After experimenting with externally and internally devised instruments, the college has decided to opt for the CAAP exam in critical thinking. The advantage of using this instrument is that it compliments our ongoing assessment process for English and Science which also use CAAP. In addition, this instrument provides a national mean for comparison unlike previous instruments.

Outcomes:

The outcomes are defined in terms of the ability of students to manage information in the activity of problem solving.

- #1 Analysis: The student will be able to categorize information or separate information into component parts.
- #2 Synthesis: The student will be able to recognize discrete elements of information as being related (for instance by subject or relevance to the task at hand).
- #3 Evaluation: The student will be able to identify which information is relevant to the solution of a problem.

Standard of Success:

The assessment will be deemed successful if the WCC mean is equal to or exceeds one standard of deviation below the national mean.

Sampling Method:

CAAP Critical Thinking will be administered in classes or course sections throughout the college. Classes will be randomly selected from the General Education Curriculum. The goal is to have at least 100 students participate through this sampling method.

Timeline:

A pilot assessment will occur in the Winter 07 term, with assessment taking place every three years thereafter.