Part One: Identify the program and guiding principles.

Program/Unit Name: Office of Undergraduate Research Date: 11/10/2014

Program/Unit Director(s) Thomas Kvale Person(s) completing this report: Thomas Kvale

Type of Program (Please Check One):
- [x] Undergraduate
- [ ] Undergraduate Certificate
- [ ] Graduate/Professional
- [ ] Post-Baccalaureate Certificate
- [ ] Associate

Student learning outcomes:
List the student learning outcomes (SLOs) for the academic or educational program.

Student Learning Outcomes from participation in the programs of the Office of Undergraduate Research:
1. Students will be able to formulate a research project and convey its significance to professionals outside of their area of research.
2. Students will develop time-management skills be able to work diligently on their research for an extended period of time.
3. Students acquire increased proficiency/knowledge of the tools/techniques/methods of inquiry in the profession in which the research project was conducted.
4. Students will develop analysis skills to critically-examine their results and reach conclusions based on their findings.
5. Students will develop presentation skills to present their research to the general public and other professionals (both orally and through written materials).
**Part Two: Identify the types of measures utilized in your program.**

**Assessment measures:**
Complete the following table. Please provide a minimum of two measures with at least one direct measure.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Applicable student learning outcomes</th>
<th>What is the process by which this assessment data is examined by the program and lead to action by the program?</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLO1: review/rating of submitted proposals</td>
<td>Students learn how to effectively formulate and convey a research project.</td>
<td>OUR-UT Staff and Advisory Committee review and rate the proposals</td>
</tr>
<tr>
<td>SLO2: timecards from participants</td>
<td>Students learn how to effectively concentrate on a project over an extended period of time.</td>
<td>OUR-UT keeps track of the hours spent on the research projects</td>
</tr>
<tr>
<td>SLO3: UGR2980 and Research Evaluation Forms</td>
<td>Students learn the safe and ethical conduct of research through UGR2980. Students gain proficiency in their chosen research field.</td>
<td>OUR-UT Staff reports finding to the OUR-UT Advisory Committee</td>
</tr>
<tr>
<td>SLO4: Final Reports of Students’ research projects</td>
<td>Students learn how to effectively report a research project.</td>
<td>OUR-UT collects and maintains the Final Reports</td>
</tr>
<tr>
<td>SLO5: Student Presentations</td>
<td>Students learn how to present a research project to the general public and/or other professionals.</td>
<td>OUR-UT organizes the End-of-Summer Research Symposium</td>
</tr>
</tbody>
</table>

**Comments:**

See following page for details.
SLO1: Students will be able to formulate a research project...

Review/rating of submitted proposals to the Summer 2014 FYSRE and USRCAP programs.

| COUNT total number of USRCAP proposals (Funded) | 35 (29) |
| COUNT the number of proposals rated >3.75 (Funded) | 28 (25) |
| AVERAGE rating score (1.0-5.0) (Funded) | 4.1 (4.2) |
| COUNT total number of FYSRE proposals (Funded) | 15 (12) |
| COUNT the number of proposals rated >3.75 (Funded) | 13 (12) |
| AVERAGE rating score (1.0-5.0) (Funded) | 4.2 (4.2) |

Note: Each individual in the Review committee can score at most 10 proposals with the highest rating of 5 and at most 10 proposals with the next highest rating of 4. There are no limits on scores 1-3 for the USRCAP proposals and same for the FYSRE proposals. This year there were three high-rated USRCAP proposals and one FYSRE proposal withdrawn because the students accepted other research positions. One FYSRE proposal was re-assigned to the TolInternship program due to it being a better fit of the project.

**Significance**: Since a limited number of proposals can be scored 4 and above, the count of the number of proposals rated 3.75 and above and the average proposal rating score indicates that the students are learning to design and articulate research projects to other professionals.

SLO2: time management: Data are being summarized

SLO3 and SLO4: Students acquire increased proficiency/knowledge...

Research Evaluation Questions 4 and 5 -- Student responses Summer 2014

4. How skilled in the tools/techniques/methods of inquiry in the profession of the research project did you start with at the beginning of the summer?

| Very skilled/ knowledgeable | 1 | 2 | 3 | Neutral | 4 | 5 | Not very skilled/ knowledgeable | 6 | 7 |

5. How skilled in the tools/techniques/methods of inquiry in the profession of the research project did you acquire by the end of the summer?

| Very skilled/ knowledgeable | 1 | 2 | 3 | Neutral | 4 | 5 | Not very skilled/ knowledgeable | 6 | 7 |

Students responses are summarized on the following graph.
**Significance**: The range goes from -6 (entered the summer with a mastery of the field and ended the summer with no skills) to +6 (entered the summer with no skills and ended the summer with a mastery of the field). The FYSRE average gain of 2.4 differs from last year’s gain of 1.9. The USRCAP average gain of 2.2 is statistically similar to last year’s skillset gain. Overall, the research experiences have been extremely valuable. The skillset average gain for USRCAP is expected to be in the neighborhood of 2.0 since the USRCAP students are typically older, more experienced, and possibly already had a prior research involvement. The differences in the three years of skillset comparisons for both FYSRE and USRCAP experiences are statistically similar.

**SLO5**: Students will develop presentation skills...

The FYSRE, TolInterns, and USRCAP summer 2014 programs are applicable for this assessment report. These research programs require that the students write a Final Report (currently being collected) and present their research (either orally or a poster presentation) at the End of Summer Research Symposium. The schedule to talks is posted on the Undergraduate Research website and can be made available upon request.
Part Three: Please provide examples of change based on review of assessment results. What changes are being made and why?

No changes were needed for this year based on last year’s assessment data.

Part Four: Suggestions for change in your program assessment process.

No changes have been identified as needed for next year based on this year’s assessment data.

Part Five: What aspects of student learning do you think the university should work on?

Examples: Access to library services; communication skills; writing skills

A central location should be identified to accommodate UGR2980 presentations and the annual Research Symposium.