

Annual Assessment Report, 2014-2015

Department/Division: Computer Science\_\_\_\_\_

College: Arts and Sciences\_\_\_\_\_

**Part I-ALC/ALP/AFP, Summary Report on Assessment of Student Learning**

Undergraduate Programs: Academic Learning Compacts (ALC)  
Graduate Programs: Academic Learning Plans (ALP)  
General Education: Academic Foundation Plans (AFP)

To be completed by academic units offering degree programs or general education.

**I-ALC Undergraduate Programs: For Each Program**

[See attached TEMPLATE](#)

**I-ALP Graduate Programs: For Each Program**

[See attached TEMPLATE](#)

**I-AFP Academic Foundations: General Education Status: For Each Course Assessed**

To be completed by academic units offering one or more courses in General Studies / Academic Foundations. Submit a report for each course in which assessment activities for General Studies/Academic Foundations took place in 2012-2013.

[See attached TEMPLATE](#)

**I-ALC. Undergraduate Programs - To be completed by academic units offering degree programs.**

Annual Report, 2014-2015

Department/Division: Computer Science\_\_\_\_\_

College CSEH\_\_\_\_\_

**Part I-ALC, Summary Report on Assessment, Academic Learning Compacts (ALC)**

Program Title<sup>a</sup>: \_\_Computer Science\_\_\_\_\_ Degree<sup>b</sup> \_\_BS\_\_\_\_\_ CIP Code: \_\_11.0101\_\_\_\_\_

<sup>a</sup>Prepare separate summary table for each degree program.

<sup>b</sup>For example, BA, BS, BSBA

- Based on **direct (required) and indirect (optional) measures** of student learning in the domain(s) your department assessed, compare your students' performance this year to their performance in previous years.
- Duplicate this section when reporting assessments for more than one domain for a given program.

**Note:** The undergraduate assessment summary described in this report encompasses all three specializations within the Computer Science undergraduate program: Computer Information Systems, Computer Science, and Software Engineering. The CS program ALC ([http://uwf.edu/cutla/ALC/Comp\\_Sci\\_ALC.pdf](http://uwf.edu/cutla/ALC/Comp_Sci_ALC.pdf)) was intentionally developed by the faculty to distinguish between the content outcomes for each specialization yet capture the common high-level outcomes for the other four domains across the specializations. The assessment of outcomes was conducted in the undergraduate capstone courses, which combine students from all three specializations and are completed during their senior year.

Indicate the student learning outcome domain assessed (check one):					
X	Content		Communication		Project Management
	Critical Thinking		Integrity/Values		Other (describe)

Describe the <b>specific student learning outcome</b> assessed in this domain: Identify and use concepts, principles, and theories of modern programming languages for the development of computer programs Compare and evaluate data structures and algorithms to solve scientific problems Analyze, design, develop, and manage information systems using appropriate tools and techniques; Describe major software engineering models and processes; Model, design, and manage database products; Configure and manage operating systems and networks
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<b>REQUIRED:</b> Describe the <b>direct measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
<i>Content was assessed by: (a) the final project structure and performance; (b) the accompanying project documentation/report; and (c) partially by presentations given to peers, faculty and/or customers. Criteria were: (a) compliance with CS modeling, design and implementation principles for engineering-type projects; and (b) awareness of state-of-the-art principles and methods for research-type projects.</i>
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
<b>Classroom:</b> <i>No significant changes were observed.</i>
<b>Online:</b> <i>The data show a concentration towards "Meet" assessment. Awarding "Exceed" was more restricted by the instructor towards extra accomplishments that were not explicitly requested. Still, a consolidation of the Meet vs. Exceed categories remains a persistent goal.</i>
<b>OPTIONAL:</b> Describe the <b>indirect measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
N/A

If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
N/A
<b>Use of Assessment Data for Making Decisions.</b> Describe the process used in your department to evaluate assessment evidence and make decisions (include dates of relevant department meetings if known). Describe the decisions made to improve student learning in your program. Describe how these decisions are related to the assessment evidence collected by your department.
<i>The worksheet used for the assessed undergraduate courses gives instructors the opportunity to make recommendations for further refinement of these courses. These recommendations are available for faculty members that will be teaching the courses to continuously amend them. Observed problems are addressed by focusing on preparatory courses according to the curriculum maps.</i>
<b>Use of Assessment Data for Improvement of Assessment Procedures.</b> Describe any changes made to assessment methods. Explain the relation between these changes and the information obtained from previous assessments.
<i>The assessment form used by the instructors will include the specific phrasing for the SLOs and suggestions for assessment measures to insure a consistent interpretation.</i>

**Describe the Department's Commitment to Assessment Activities in 2015-2016**

<b>Domain(s) to be examined from department's multi-year assessment plan in 2015-2016</b>
<i>All five domains are being assessed at the undergraduate level.</i>
<b>Assessment question(s) to be addressed in 2015-2016</b>
<i>The greater level of detail required by the need to assess and record data for each SLO together with the need to report separately for each form of delivery will increase the amount of work dramatically, both in collecting the data and reporting the results. A decision must be made to limit the number of SLOs assessed to at most two in order to keep the process manageable.</i>

**I-ALC. Undergraduate Programs - To be completed by academic units offering degree programs.**

Annual Report, 2014-2015

Department/Division: Computer Science \_\_\_\_\_

College: CSEH \_\_\_\_\_

**Part I-ALC, Summary Report on Assessment, Academic Learning Compacts (ALC)**

Program Title<sup>a</sup>: \_\_Computer Science\_\_\_\_\_ Degree<sup>b</sup> \_\_BS\_\_\_\_ CIP Code: \_11.0101\_\_\_\_\_

<sup>a</sup>Prepare separate summary table for each degree program.

<sup>b</sup>For example, BA, BS, BSBA

- Based on **direct (required) and indirect (optional) measures** of student learning in the domain(s) your department assessed, compare your students' performance this year to their performance in previous years.
- Duplicate this section when reporting assessments for more than one domain for a given program.

Indicate the student learning outcome assessed (check one):				
	Content		Communication	Project Management
X	Critical Thinking		Integrity/Values	Other (describe)

Describe the <b>specific student learning outcome</b> assessed in this domain: <i>Employ computing strategies to analyze and develop computer systems; Identify and formulate computing solutions for various problems</i>
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<b>REQUIRED:</b> Describe the <b>direct measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
<i>Critical thinking was assessed by reviewing a) written project reports with regard to exploration of alternatives, substantiation of design decisions and conclusions as well self-criticism and rational outlooks, b) observing student presentations, especially the response to critical questions.</i>
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
<b>Classroom:</b> <i>No significant changes were observed.</i>
<b>Online:</b> <i>The data show a concentration towards "Meet" assessment. Awarding "Exceed" was more restricted by the instructor towards extra accomplishments that were not explicitly requested. Still, a consolidation of the Meet vs. Exceed categories remains a persistent goal.</i>
<b>OPTIONAL:</b> Describe the <b>indirect measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
<i>N/A</i>
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
<i>N/A</i>
<b>Use of Assessment Data for Making Decisions.</b> Describe the process used in your department to evaluate assessment evidence and make decisions (include dates of relevant department meetings if known). Describe the decisions made to improve student learning in your program. Describe how these decisions are related to the assessment evidence collected by your department.
<i>The worksheet used for the assessed undergraduate courses gives instructors the opportunity to make recommendations for further refinement of these courses. These recommendations are available for faculty members that will be teaching the courses to continuously amend them. Observed problems are addressed by focusing on preparatory courses according to the curriculum maps.</i>
<b>Use of Assessment Data for Improvement of Assessment Procedures.</b> Describe any changes made to assessment methods. Explain the relation between these changes and the information obtained from previous assessments.

*The assessment form used by the instructors will include the specific phrasing for the SLOs and suggestions for assessment measures to insure a consistent interpretation.*

**Describe the Department's Commitment to Assessment Activities in 2015-2016**

**Domain(s) to be examined from department's multi-year assessment plan in 2015-2016**

*All five domains are being assessed at the undergraduate level.*

**Assessment question(s) to be addressed in 2015-2016**

*The greater level of detail required by the need to assess and record data for each SLO together with the need to report separately for each form of delivery will increase the amount of work dramatically, both in collecting the data and reporting the results. A decision must be made to limit the number of SLOs assessed to at most two in order to keep the process manageable.*

**I-ALC. Undergraduate Programs - To be completed by academic units offering degree programs.**

Annual Report, 2014-2015

Department/Division: Computer Science \_\_\_\_\_

College: CSEH \_\_\_\_\_

**Part I-ALC, Summary Report on Assessment, Academic Learning Compacts (ALC)**

Program Title<sup>a</sup>: \_\_Computer Science\_\_\_\_\_ Degree<sup>b</sup> \_\_BS\_\_\_\_ CIP Code: \_11.0101\_\_\_\_\_

<sup>a</sup>Prepare separate summary table for each degree program.

<sup>b</sup>For example, BA, BS, BSBA

- Based on **direct (required) and indirect (optional) measures** of student learning in the domain(s) your department assessed, compare your students' performance this year to their performance in previous years.
- Duplicate this section when reporting assessments for more than one domain for a given program.

<b>Indicate the student learning outcome assessed (check one):</b>				
Content	X	Communication		Project Management
Critical Thinking		Integrity/Values		Other (describe)

Describe the <b>specific student learning outcome</b> assessed in this domain:
Create and deliver effective oral presentations and written reports
Communicate using appropriate tools and technologies

<b>REQUIRED:</b> Describe the <b>direct measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
<i>Communication skills were assessed by requesting and evaluating: (a) a written report; and (b) one or more presentations before peers, faculty and/or customers. To assess written communication skills, criteria included structure, form and language of the report; to assess oral communication skills, form, media usage, coherence, timing, posture and audience interaction were pertinent.</i>
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
<b>Classroom &amp; Online:</b> <i>No significant changes were observed.</i>
<b>OPTIONAL:</b> Describe the <b>indirect measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
N/A
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
N/A
<b>Use of Assessment Data for Making Decisions.</b> Describe the process used in your department to evaluate assessment evidence and make decisions (include dates of relevant department meetings if known). Describe the decisions made to improve student learning in your program. Describe how these decisions are related to the assessment evidence collected by your department.
<i>The worksheet used for the assessed undergraduate courses gives instructors the opportunity to make recommendations for further refinement of these courses. These recommendations are available for faculty members that will be teaching the courses to continuously amend them. Observed problems are addressed by focusing on preparatory courses according to the curriculum maps.</i>
<b>Use of Assessment Data for Improvement of Assessment Procedures.</b> Describe any changes made to assessment methods. Explain the relation between these changes and the information obtained from previous assessments.
<i>The assessment form used by the instructors will include the specific phrasing for the SLOs and suggestions for assessment measures to insure a consistent interpretation. For this outcome it's not strictly necessary, but it will be done for reasons of consistency.</i>

**Describe the Department's Commitment to Assessment Activities in 2015-2016**

**Domain(s) to be examined from department's multi-year assessment plan in 2015-2016**

*All five domains are being assessed at the undergraduate level.*

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**I-ALC. Undergraduate Programs - To be completed by academic units offering degree programs.**

Annual Report, 2014-2015

Department/Division: Computer Science \_\_\_\_\_

College: CSEH \_\_\_\_\_

**Part I-ALC, Summary Report on Assessment, Academic Learning Compacts (ALC)**

Program Title<sup>a</sup>: Computer Science \_\_\_\_\_ Degree<sup>b</sup> BS \_\_\_\_\_ CIP Code: 11.0101 \_\_\_\_\_

<sup>a</sup>Prepare separate summary table for each degree program.

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- Based on **direct (required) and indirect (optional) measures** of student learning in the domain(s) your department assessed, compare your students' performance this year to their performance in previous years.
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Indicate the student learning outcome assessed (check one):				
	Content		Communication	Project Management
	Critical Thinking	X	Integrity/Values	Other (describe)

Describe the <b>specific student learning outcome</b> assessed in this domain:
Describe ethical issues in computing contexts
Articulate the responsibilities of a computing professional

<b>REQUIRED:</b> Describe the <b>direct measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
<i>Assessment was performed by: (a) evaluating written reports and oral presentations for accounts of ethical implications of the project or research topic and b) strictly enforcing citation rules – and, generally, rules of academic honesty – for reports, papers and oral presentations.</i>
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
<b>Classroom &amp; Online:</b> <i>No significant changes were observed.</i>
<b>OPTIONAL:</b> Describe the <b>indirect measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
N/A
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
N/A
<b>Use of Assessment Data for Making Decisions.</b> Describe the process used in your department to evaluate assessment evidence and make decisions (include dates of relevant department meetings if known). Describe the decisions made to improve student learning in your program. Describe how these decisions are related to the assessment evidence collected by your department.
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**I-ALC. Undergraduate Programs - To be completed by academic units offering degree programs.**

Annual Report, 2014-2015

Department/Division: Computer Science \_\_\_\_\_

College: CSEH \_\_\_\_\_

**Part I-ALC, Summary Report on Assessment, Academic Learning Compacts (ALC)**

Program Title<sup>a</sup>: \_\_Computer Science\_\_\_\_\_ Degree<sup>b</sup> \_\_BS\_\_\_\_ CIP Code: \_11.0101\_\_\_\_\_

<sup>a</sup>Prepare separate summary table for each degree program.

<sup>b</sup>For example, BA, BS, BSBA

- Based on **direct (required) and indirect (optional) measures** of student learning in the domain(s) your department assessed, compare your students' performance this year to their performance in previous years.
- Duplicate this section when reporting assessments for more than one domain for a given program.

<b>Indicate the student learning outcome assessed (check one):</b>					
	Content		Communication	X	Project Management
	Critical Thinking		Integrity/Values		Other (describe)

Describe the **specific student learning outcome** assessed in this domain:  
 Employ effective project management skills to develop a project plan, monitor, and track development efforts through design, implementation, and testing of the computer system;  
 Work as part of a team in the development of computer systems

<p><b>REQUIRED:</b> Describe the <b>direct measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.</p> <p><i>The domain was assessed by requiring: (a) written progress reports for engineering projects; (b) a detailed research plan for research-oriented projects and (c) intermediate presentations ensuring progress and effective response to eventual problems.</i></p> <p>If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.</p> <p><b>Classroom:</b>  <i>The data show a light increase into the FAIL category which is due to several student teams missing important project deadlines.</i></p> <p><b>Online:</b>  <i>No significant changes were observed.</i></p>
<p><b>OPTIONAL:</b> Describe the <b>indirect measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.</p> <p><i>N/A</i></p> <p>If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.</p> <p><i>N/A</i></p>
<p><b>Use of Assessment Data for Making Decisions.</b> Describe the process used in your department to evaluate assessment evidence and make decisions (include dates of relevant department meetings if known). Describe the decisions made to improve student learning in your program. Describe how these decisions are related to the assessment evidence collected by your department.</p> <p><i>The worksheet used for the assessed undergraduate courses gives instructors the opportunity to make recommendations for further refinement of these courses. These recommendations are available for faculty members that will be teaching the courses to continuously amend them. Observed problems are addressed by focusing on preparatory courses according to the curriculum maps.</i></p>
<p><b>Use of Assessment Data for Improvement of Assessment Procedures.</b> Describe any changes made to assessment methods. Explain the relation between these changes and the information obtained from previous</p>

assessments.

*The assessment form used by the instructors will include the specific phrasing for the SLOs and suggestions for assessment measures to insure a consistent interpretation.*

**Describe the Department's Commitment to Assessment Activities in 2015-2016**

**Domain(s) to be examined from department's multi-year assessment plan in 2015-2016**

*All five domains are being assessed at the undergraduate level.*

**Assessment question(s) to be addressed in 2015-2016**

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## Appendix: Undergraduate Program Assessment Summarized Data & Evaluation

### 2008-2009

<b>Domain</b>	<b>Total</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	90	2.2	97.8	0
Critical Thinking	42	0	100	0
Communication	42	9.5	88.1	2.4
Integrity & Values	37	8.1	91.9	0
Project Management	37	5.4	91.9	2.7

### 2009-2010

<b>Domain</b>	<b>Total</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	264	18.6	81.4	0
Critical Thinking	114	14	86	0
Communication	114	25.4	74.6	0
Integrity & Values	93	15.1	84.9	0
Project Management	72	0	100	0

### 2010-2011

<b>Domain</b>	<b>Total</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	153	6.1	93.9	0
Critical Thinking	102	2	98	0
Communication	102	11.8	86.2	2
Integrity & Values	102	4	96	0
Project Management	100	0	98	2

### 2011-2012

<b>Domain</b>	<b>Total</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	53	30	63.7	6.3
Critical Thinking	54	16.7	68.5	14.8
Communication	54	33	65	2
Integrity & Values	54	31	65	4
Project Management	54	0	96	4

**2012-2013**

<b>Domain</b>	<b>Total</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	60	19.6	76.3	4.1
Critical Thinking	60	29.2	62.5	8.3
Communication	60	20	78.3	1.7
Integrity & Values	60	8.3	86.7	5
Project Management	60	12.8	85.2	3

**2013-2014****Classroom**

<b>Domain</b>	<b>Total</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	21	30.6	67.1	2.3
Critical Thinking	21	28.6	61.9	9.5
Communication	21	11.9	88.1	0
Integrity & Values	21	4.8	85.7	9.5
Project Management	21	4.8	95.2	0

**Online**

<b>Domain</b>	<b>Total</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	49	27	73	0
Critical Thinking	49	44.9	55.1	0
Communication	49	13.3	86.7	0
Integrity & Values	49	10.2	89.8	0
Project Management	49	19	81	0

**2014-2015****Classroom**

<b>Domain</b>	<b>Total</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	25	10	86	4
Critical Thinking	25	4	96	0
Communication	25	0	96	4
Integrity & Values	25	4	90	6
Project Management	25	4	84	12

**Online**

<b>Domain</b>	<b>Total</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	32	14.8	77.4	7.8
Critical Thinking	32	28.1	62.5	9.4
Communication	32	0	100	0
Integrity & Values	32	0	100	0
Project Management	32	0	100	0

**Appendix: Undergraduate Assessment Summary Worksheet**

**Student Learning Outcomes Undergraduate Assessment Worksheet**

**Department of Computer Science  
University of West Florida**

*If you have taught this course in both online **and** classroom sections, please fill out separate assessment worksheets for the online and for the classroom section(s).*

**(a) Course name and number:** \_\_\_\_\_ **(b) Semester:** \_\_\_\_\_

1. (a) Instructor(s): \_\_\_\_\_ (b) Number of sections: \_\_\_\_\_
2. Assessment for (check all programs that apply): \_\_\_\_\_ CIS \_\_\_\_\_ CS \_\_\_\_\_ SE
3. Online/classroom: \_\_\_\_\_ Number of sections of the course:   1
4. (a) Initial course enrollment: \_\_\_\_\_ (b) Number of students who completed course: \_\_\_\_\_
5. For each student learning outcome assessed in the course, please describe how that outcome was assessed (assessment measure), and indicate the **number and percentage** of students who exceeded, met, or failed to meet expectations. **Use the number of students who completed the course** (indicated in item 4(b) above) to calculate the percentages. For learning outcomes that were not assessed in this course offering, indicate N/A.

Learning outcomes listed in the first column are defined in the Computer Science Academic Learning Compact (ALC) available at [http://uwf.edu/cutla/ALC/Comp\\_Sci\\_ALC.pdf](http://uwf.edu/cutla/ALC/Comp_Sci_ALC.pdf).

<b>Student Learning Outcome</b>	<b>Assessment Measure</b>	<b>Exceeded Expectations</b>	<b>Met Expectations</b>	<b>Failed to Meet Expectations</b>
[Sample row]	Research paper	10/20 (50%)	6/20 (30%)	4/20 (20%)
Content-1				
Content-2				
Content-3				
Content-4				
Content-5				
Critical thinking-1				
Critical thinking-2				
Communication-1				
Communication-2				
Integrity/values-1				
Integrity/values-2				
Project management-1				
Project management-2				

6. Recommendations to improve or update student learning outcomes or assessment measures, if any:

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**Instructor(s) Signature**

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**Date**

**I-ALP. Graduate Programs**

Annual Report, 2014-2015

Department/Division: Computer ScienceCollege: CSEH

Part I-ALP, Summary Report on Assessment, Academic Learning Plans (ALP)

Program Title<sup>a</sup>: Computer Science Degree<sup>b</sup> MS CIP Code: 11.0101<sup>a</sup>Prepare separate summary table for each degree program.<sup>b</sup>For example, MA, MS, M.Ed., Ed.D.

- Based on **direct (required) and indirect (optional) measures** of student learning in the domain(s) your department assessed, compare your students' performance this year to their performance in previous years.
- Duplicate this section when reporting assessments for more than one domain for a given program.

**Note:** The graduate assessment summary described in this report encompasses all three specializations within the Computer Science graduate program: Computer Science, Database Systems, and Software Engineering. The CS program ALP ([http://uwf.edu/cutla/ALP/Computer\\_Sci\\_ALP.pdf](http://uwf.edu/cutla/ALP/Computer_Sci_ALP.pdf)) was intentionally developed by the faculty to distinguish between the content outcomes for each specialization yet capture the common high-level outcomes for the other four domains across the specializations. The assessment of outcomes was conducted in the graduate project or thesis courses, which are required for students from all three specializations to complete their program requirements. Students identify a mentor or committee for their project or thesis, and students from multiple specializations may work with the same faculty member.

Indicate the student learning outcome assessed (check one):					
X	Content		Communication		Project Management
	Critical Thinking		Integrity/Values		Other (describe)

Describe the <b>specific student learning outcome</b> assessed in this domain:
- Describe, compare, and evaluate at an expert level one or more contemporary topics of specialization in modern computing
- Apply computing principles to a specific problem domain

<b>REQUIRED:</b> Describe the <b>direct measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
<i>Content was assessed by reviewing a) collected research artifacts such as midterm reports, thesis proposal, etc., b) submitted final project documentation/reports or theses and/or c) presentations given to audience including faculty, peers, and others. Criteria were a) compliance with CS modeling, design and implementation principles for CS projects/thesis and b) awareness of state-of-the-art principles and research methods.</i>
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
<b>Classroom:</b> <i>No significant changes were observed. The small sample size in the classroom sections makes an interpretation of the data not very reliable.</i>
<b>Online:</b> <i>The data show a distinctive shift from "meets" to "exceeds" - the distinction needs to be clarified.</i>
<b>OPTIONAL:</b> Describe the <b>indirect measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
N/A
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
N/A
<b>Use of Assessment Data for Making Decisions.</b> Describe the process used in your department to evaluate assessment evidence and make decisions (include dates of relevant department meetings if known). Describe the

<p>decisions made to improve student learning in your program. Describe how these decisions are related to the assessment evidence collected by your department.</p> <p><i>The data for the classroom sections are probably not robust due to a small sample size.</i></p> <p><i>Instructors summarize data collected from last Summer, Fall, and Spring and report them to the department. Faculty members review data and take appropriate actions to improve the achievement of student learning outcomes or assessment process at the annual assessment meeting. The assessment committee summarizes the results and faculty recommendations for the departmental annual report.</i></p>
<p><b>Use of Assessment Data for Improvement of Assessment Procedures.</b> Describe any changes made to assessment methods. Explain the relation between these changes and the information obtained from previous assessments.</p> <p><i>The criteria for "Meets" v. "Exceeds" need to be discussed and strengthened again. The assessment form used by the instructors should include the specific phrasing for the SLOs to insure a consistent interpretation.</i></p>
<p><b>Describe the Department's Commitment to Assessment Activities in 2015-2016</b></p>
<p><b>Domain(s) to be examined from the department's multi-year assessment plan in 2015-2016</b></p> <p><i>All domains will continue to be assessed at the graduate level.</i></p>
<p><b>Assessment question(s) to be addressed in 2015-2016</b></p> <p><i>The greater level of detail required by the need to assess and record data for each SLO together with the need to report separately for each form of delivery will increase the amount of work dramatically, both in collecting the data and reporting the results. A decision must be made to limit the number of SLOs assessed to at most two in order to keep the process manageable.</i></p>

**I-ALP. Graduate Programs**

Annual Report, 2015-2016

Department/Division: Computer ScienceCollege: CSEH

Part I-ALP, Summary Report on Assessment, Academic Learning Plans (ALP)

Program Title<sup>a</sup>: Computer Science Degree<sup>b</sup> MS CIP Code: \_11.0101\_<sup>a</sup>Prepare separate summary table for each degree program.<sup>b</sup>For example, MA, MS, M.Ed., Ed.D.

- Based on **direct (required) and indirect (optional) measures** of student learning in the domain(s) your department assessed, compare your students' performance this year to their performance in previous years.
- Duplicate this section when reporting assessments for more than one domain for a given program.

Indicate the student learning outcome assessed (check one):					
	Content		Communication		Project Management
X	Critical Thinking		Integrity/Values		Other (describe)

Describe the <b>specific student learning outcome</b> assessed in this domain:
- Identify and analyze alternate approaches to solving computing problems
- Implement and analyze relevant algorithms in a variety of environments

<b>REQUIRED:</b> Describe the <b>direct measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
<i>Critical Thinking was assessed by</i> <ol style="list-style-type: none"> <li><i>reviewing any collected research artifacts such as thesis proposal, midterm report, final reports, etc. with regard to the study of literature, exploration of alternative methods and validity of methods applied, substantiation of design decisions and conclusions as well as self-criticism and rational outlooks,</i></li> <li><i>scrutinizing student presentations with regard to presented arguments as well as any answers given to critical questions from the audience.</i></li> </ol>
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
<b>Classroom:</b> <i>No significant changes were observed. The small sample size in the classroom sections makes an interpretation of the data not very reliable.</i>
<b>Online:</b> <i>The data show a distinctive shift from "meets" to "exceeds" - the distinction needs to be clarified.</i>
<b>OPTIONAL:</b> Describe the <b>indirect measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
<i>N/A</i>
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
<i>N/A</i>
<b>Use of Assessment Data for Making Decisions.</b> Describe the process used in your department to evaluate assessment evidence and make decisions (include dates of relevant department meetings if known). Describe the decisions made to improve student learning in your program. Describe how these decisions are related to the assessment evidence collected by your department.
<i>The data for the classroom sections are probably not robust due to a small sample size.</i>
<i>Instructors summarize data collected from last Summer, Fall, and Spring and report them to the department. Faculty members review data and take appropriate actions to improve the achievement of student learning outcomes or assessment process at the annual assessment meeting. The assessment committee summarizes the results and</i>

<i>faculty recommendations for the departmental annual report.</i>
<b>Use of Assessment Data for Improvement of Assessment Procedures.</b> Describe any changes made to assessment methods. Explain the relation between these changes and the information obtained from previous assessments.
<i>The criteria for "Meets" v. "Exceeds" need to be discussed and strengthened. The assessment form used by the instructors should include the specific phrasing for the SLOs to insure a consistent interpretation.</i>
<b>Describe the Department's Commitment to Assessment Activities in 2015-2016</b>
<b>Domain(s) to be examined from the department's multi-year assessment plan in 2015-2016</b>
<i>All domains will continue to be assessed at the graduate level.</i>
<b>Assessment question(s) to be addressed in 2015-2016</b>
<i>The greater level of detail required by the need to assess and record data for each SLO together with the need to report separately for each form of delivery will increase the amount of work dramatically, both in collecting the data and reporting the results. A decision must be made to limit the number of SLOs assessed to at most two in order to keep the process manageable.</i>

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<sup>a</sup>Prepare separate summary table for each degree program.

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- Based on **direct (required) and indirect (optional) measures** of student learning in the domain(s) your department assessed, compare your students' performance this year to their performance in previous years.
- Duplicate this section when reporting assessments for more than one domain for a given program.

<b>Indicate the student learning outcome assessed (check one):</b>				
Content	X	Communication		Project Management
Critical Thinking		Integrity/Values		Other (describe)

Describe the <b>specific student learning outcome</b> assessed in this domain:
- <i>Employ effective and professional technical writing skills</i>
- <i>Present summary of thesis or project results using appropriate technologies</i>

<b>REQUIRED:</b> Describe the <b>direct measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
<i>Communication was assessed by: (a) written project reports/theses; and (b) presentations before an audience (peers, faculty, and others). Written communication skills were assessed by considering structure, form, and use of language of report/theses and presentation slides. Oral communication skills were assessed by considering coherence of presentation, timing, posture, and audience interaction in response to questions.</i>
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
<b>Classroom:</b> <i>No significant changes were observed. The small sample size in the classroom sections makes an interpretation of the data not very reliable.</i>
<b>Online:</b> <i>The data show a distinctive shift from "meets" to "exceeds" - the distinction needs to be clarified.</i>
<b>OPTIONAL:</b> Describe the <b>indirect measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
<i>N/A</i>
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
<i>N/A</i>
<b>Use of Assessment Data for Making Decisions.</b> Describe the process used in your department to evaluate assessment evidence and make decisions (include dates of relevant department meetings if known). Describe the decisions made to improve student learning in your program. Describe how these decisions are related to the assessment evidence collected by your department.
<i>The data for the classroom sections are probably not robust due to a small sample size.</i>
<i>Instructors summarize data collected from last Summer, Fall, and Spring and report them to the department. Faculty members review data and take appropriate actions to improve the achievement of student learning outcomes or assessment process at the annual assessment meeting. The assessment committee summarizes the results and</i>

<i>faculty recommendations for the departmental annual report.</i>
<b>Use of Assessment Data for Improvement of Assessment Procedures.</b> Describe any changes made to assessment methods. Explain the relation between these changes and the information obtained from previous assessments.
<i>The criteria for "Meets" v. "Exceeds" need to be discussed and strengthened. The assessment form used by the instructors should include the specific phrasing for the SLOs to insure a consistent interpretation.</i>

**Describe the Department's Commitment to Assessment Activities in 2015-2016**

<b>Domain(s) to be examined from the department's multi-year assessment plan in 2015-2016</b>
<i>All domains will continue to be assessed at the graduate level.</i>
<b>Assessment question(s) to be addressed in 2015-2016</b>
<i>The greater level of detail required by the need to assess and record data for each SLO together with the need to report separately for each form of delivery will increase the amount of work dramatically, both in collecting the data and reporting the results. A decision must be made to limit the number of SLOs assessed to at most two in order to keep the process manageable.</i>

**I-ALP. Graduate Programs**

Annual Report, 2014-2015

Department/Division: Computer Science

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Program Title<sup>a</sup>: Computer Science Degree<sup>b</sup> MS CIP Code: \_11.0101\_

<sup>a</sup>Prepare separate summary table for each degree program.

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- Based on **direct (required) and indirect (optional) measures** of student learning in the domain(s) your department assessed, compare your students' performance this year to their performance in previous years.
- Duplicate this section when reporting assessments for more than one domain for a given program.

Indicate the student learning outcome assessed (check one):				
Content		Communication		Project Management
Critical Thinking	X	Integrity/Values		Other (describe)

Describe the <b>specific student learning outcome</b> assessed in this domain:
- <i>Identify ethical issues and responsibilities with the computing profession</i>

<b>REQUIRED:</b> Describe the <b>direct measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
<i>Integrity/Values domain was assessed by: (a) evaluating written reports and oral presentations for accounts of ethical implications of the research project/theses; and (b) application of proper citation rules as well as rules of academic honesty and conduct.</i>
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
<b>Classroom:</b> <i>No significant changes were observed. The small sample size in the classroom sections makes an interpretation of the data not very reliable.</i>
<b>Online:</b> <i>The data show a distinctive shift from "meets" to "exceeds" - the distinction needs to be clarified.</i>
<b>OPTIONAL:</b> Describe the <b>indirect measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
N/A
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
N/A
<b>Use of Assessment Data for Making Decisions.</b> Describe the process used in your department to evaluate assessment evidence and make decisions (include dates of relevant department meetings if known). Describe the decisions made to improve student learning in your program. Describe how these decisions are related to the assessment evidence collected by your department.
<i>The data for the classroom sections are probably not robust due to a small sample size. Instructors summarize data collected from last Summer, Fall, and Spring and report them to the department. Faculty members review data and take appropriate actions to improve the achievement of student learning outcomes or assessment process at the annual assessment meeting. The assessment committee summarizes the results and faculty recommendations for the departmental annual report.</i>
<b>Use of Assessment Data for Improvement of Assessment Procedures.</b> Describe any changes made to assessment methods. Explain the relation between these changes and the information obtained from previous assessments.
<i>The criteria for "Meets" v. "Exceeds" need to be discussed and strengthened. The assessment form used by the</i>

<i>instructors should include the specific phrasing for the SLOs to insure a consistent interpretation.</i>
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<b>Describe the Department's Commitment to Assessment Activities in 2015-2016</b>
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<b>Domain(s) to be examined from the department's multi-year assessment plan in 2015-2016</b>
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<i>All domains will continue to be assessed at the graduate level.</i>
--

<b>Assessment question(s) to be addressed in 2015-2016</b>
--

<i>The greater level of detail required by the need to assess and record data for each SLO together with the need to report separately for each form of delivery will increase the amount of work dramatically, both in collecting the data and reporting the results. A decision must be made to limit the number of SLOs assessed to at most two in order to keep the process manageable.</i>
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**I-ALP. Graduate Programs**

Annual Report, 2014-2015

Department/Division: Computer Science

College: CSEH

Part I-ALP, Summary Report on Assessment, Academic Learning Plans (ALP)

Program Title<sup>a</sup>: Computer Science Degree<sup>b</sup> MS CIP Code: \_11.0101\_

<sup>a</sup>Prepare separate summary table for each degree program.

<sup>b</sup>For example, MA, MS, M.Ed., Ed.D.

- Based on **direct (required) and indirect (optional) measures** of student learning in the domain(s) your department assessed, compare your students' performance this year to their performance in previous years.
- Duplicate this section when reporting assessments for more than one domain for a given program.

Indicate the student learning outcome assessed (check one):					
<input type="checkbox"/>	Content	<input type="checkbox"/>	Communication	<input checked="" type="checkbox"/>	Project Management
<input type="checkbox"/>	Critical Thinking	<input type="checkbox"/>	Integrity/Values	<input type="checkbox"/>	Other (describe)

Describe the <b>specific student learning outcome</b> assessed in this domain:
<ul style="list-style-type: none"> <li>- <i>Conceive, plan, organize, and execute a significant months-long project in computing</i></li> <li>- <i>Collaborate with team members where appropriate and defend results and outcomes at the end of the project timeline.</i></li> </ul>

<b>REQUIRED:</b> Describe the <b>direct measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
<i>Project Management was assessed by: (a) written progress reports; and (b) intermediate presentations over a period of two or more semesters to ensure steady progress and remediation of encountered problems.</i>
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
<b>Classroom:</b> <i>No significant changes were observed. The small sample size in the classroom sections makes an interpretation of the data not very reliable.</i>
<b>Online:</b> <i>The data show a distinctive shift from "meets" to "exceeds" - the distinction needs to be clarified.</i>
<b>OPTIONAL:</b> Describe the <b>indirect measure(s)</b> used to assess student learning in this domain (e.g., answers to questions included on an exam, performance on a paper or project scored with a rubric, etc.). Include information about any additional measures used to assess learning outcomes in this domain.
<i>N/A</i>
If you observed changes in student performance on this measure when compared to previous years, briefly describe (in one or two sentences) the nature of these changes.
<i>N/A</i>
<b>Use of Assessment Data for Making Decisions.</b> Describe the process used in your department to evaluate assessment evidence and make decisions (include dates of relevant department meetings if known). Describe the decisions made to improve student learning in your program. Describe how these decisions are related to the assessment evidence collected by your department.
<i>The data for the classroom sections are probably not robust due to a small sample size. Instructors summarize data collected from last Summer, Fall, and Spring and report them to the department. Faculty members review data and take appropriate actions to improve the achievement of student learning outcomes or assessment process at the annual assessment meeting. The assessment committee summarizes the results and faculty recommendations for the departmental annual report.</i>
<b>Use of Assessment Data for Improvement of Assessment Procedures.</b> Describe any changes made to assessment methods. Explain the relation between these changes and the information obtained from previous assessments.

*The criteria for "Meets" v. "Exceeds" need to be discussed and strengthened. The assessment form used by the instructors should include the specific phrasing for the SLOs to insure a consistent interpretation.*

**Describe the Department's Commitment to Assessment Activities in 2015-2016**

**Domain(s) to be examined from the department's multi-year assessment plan in 2015-2016**

*All domains will continue to be assessed at the graduate level.*

**Assessment question(s) to be addressed in 2015-2016**

*The greater level of detail required by the need to assess and record data for each SLO together with the need to report separately for each form of delivery will increase the amount of work dramatically, both in collecting the data and reporting the results. A decision must be made to limit the number of SLOs assessed to at most two in order to keep the process manageable.*

**Appendix: Graduate Program Assessment Summarized Data & Evaluation****2008-2009**

<b>Domain</b>	<b>Total n</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	19	47.4	52.6	0
Critical Thinking	10	90.0	10.0	0
Communication	39	82.1	12.8	5.1
Integrity/Values	10	90.0	10.0	0
Project Management	10	90.0	10.0	0

**2009-2010**

<b>Domain</b>	<b>Total n</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	115	18.3	81.7	0
Critical Thinking	72	27.8	72.2	0
Communication	109	33.9	62.4	3.7
Integrity/Values	39	12.8	87.2	0
Project Management	45	26.7	73.3	0

**2010-2011**

<b>Domain</b>	<b>Total n</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	128	7.0	90.7	2.3
Critical Thinking	84	4.76	95.24	0
Communication	90	10	87.78	2.22
Integrity/Values	45	6.67	91.11	2.22
Project Management	53	7.55	92.45	0

**2011-2012**

<b>Domain</b>	<b>Total n</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	28	14.3	78.6	7.1
Critical Thinking	28	35.6	46.4	0
Communication	28	41.7	56.0	1.5
Integrity/Values	28	13.0	87.0	0
Project Management	28	45.5	54.4	0

**2012-2013**

<b>Domain</b>	<b>Total n</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	37	77.5	17.1	5.4
Critical Thinking	37	77.0	17.6	5.4
Communication	37	73.9	20.7	5.4
Integrity/Values	37	76.6	15.3	8.1
Project Management	37	43.2	54.1	2.7

**2013-2014****Classroom**

<b>Domain</b>	<b>Total</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	5	20	80	0
Critical Thinking	5	20	80	0
Communication	5	20	80	0
Integrity & Values	5	20	80	0
Project Management	5	80	20	0

**Online**

<b>Domain</b>	<b>Total</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	54	25.3	70.4	4.3
Critical Thinking	54	11.1	85.2	3.7
Communication	54	39.8	57.7	2.5
Integrity & Values	54	3.7	97.3	0
Project Management	54	29.6	70.4	0

**2014-2015****Classroom**

<b>Domain</b>	<b>Total</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	7	14	85	0
Critical Thinking	7	21	79	0
Communication	7	36	57	7
Integrity & Values	7	71	29	0
Project Management	7	31	69	0

**Online**

<b>Domain</b>	<b>Total</b>	<b>Exceed%</b>	<b>Meet%</b>	<b>Fail%</b>
Content	46	83.7	16.3	0
Critical Thinking	46	83.7	16.3	0
Communication	46	87	11.6	1.4
Integrity & Values	46	84.8	15.2	0
Project Management	46	52.2	47.8	0

**Appendix: Graduate Assessment Summary Worksheet**

**Student Learning Outcomes Graduate Assessment Worksheet**

**Department of Computer Science  
University of West Florida**

*If you have taught this course in both online **and** classroom sections, please fill out separate assessment worksheets for the online and for the classroom section(s).*

**Instructions:** Complete and submit one copy of this form at the end of each semester, and include data for all students who successfully completed the project or thesis that semester. Please remember to include qualitative data and recommendations in addition to the quantitative data.

1. (a) Course name and number: \_\_\_\_\_ (b) Semester: \_\_\_\_\_
2. (a) Instructor(s): \_\_\_\_\_ (b) Number of sections: \_\_\_\_\_
3. Assessment for (check all specializations that apply): \_\_\_\_\_ CS \_\_\_\_\_ DB \_\_\_\_\_ SE
4. Online/classroom: \_\_\_\_\_ Number of sections of the course:   1
5. (a) Initial course enrollment: \_\_\_\_\_ (b) Number of students who completed course: \_\_\_\_\_
6. For each student learning outcome assessed in the course, please describe how that outcome was assessed (assessment measure), and indicate for the number of students who successfully completed the course, the number and percentage of students who exceeded, met, or failed to meet expectations at the end of the course. Use the number of students who successfully completed the course (indicated in item 4(b) above) to calculate the percentages. For learning outcomes that were not assessed in this course offering, indicate N/A.

Learning outcomes listed in the first column are defined in the Computer Science Academic Learning Plan (ALP) available at [http://uwf.edu/cutla/ALP/Computer\\_Sci\\_ALP.pdf](http://uwf.edu/cutla/ALP/Computer_Sci_ALP.pdf).

<b>Student Learning Outcome</b>	<b>Assessment Measure</b>	<b>Exceeded Expectations</b>	<b>Met Expectations</b>	<b>Failed to Meet Expectations</b>
[Sample row]	Research paper	10/20 (50%)	6/20 (30%)	4/20 (20%)
Content – 1				
Content – 2				
Content – 3				
Critical thinking – 1				
Critical thinking – 2				
Communication – 1				
Communication – 2				

Integrity/values – 1				
Project management –1				
Project management–2				

6. Recommendations, if any, to improve students' preparation for the project/thesis course, either prior to enrollment in or during the course:

7. Recommendations, if any, to improve or update student learning outcomes or assessment measures for the graduate program or project/thesis course:

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**Instructor(s) Signature**

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**Date**