

ASSESSMENT REPORT 2017-2018

Computer Science

(Instructional Degree Program)

M.S./M.A.

(Degree Level)

Program Mission:

The mission of the Media Arts and Computer Science (MACS) M.S./M.A. Program is to provide students with a challenging, market relevant and high-quality education in computer science with focused concentrations in media arts and computer science.

Student Learning Outcome 1:

Understand graduate level computer science and media arts terminology, technology and programming methods.

NMHU Traits Specifically Linked to Student Learning Outcome 1

- Mastery of Content Knowledge and Skills
- Critical and Reflective Thinking Skills
- Effective Use of Technology

First Means of Assessment for Outcome 1:

Final grade from CS 610: Synthesis of Media Arts and Computer Science; interdisciplinary investigation of terminology, roots, assumptions and principles that underlie the meaning of media arts and computer science. Students mastery will be measured with a B or better in the course.

Summary of Data:

Number of Students Meeting Criterion:	14	Number of Students Not Meeting Criterion:	0
Total Number of Students Assessed:	14	Percent of Students Meeting Criterion:	%100

Second Means of Assessment for Outcome 1:

Final grade from CS 620: Multimedia Project Development; Thesis research preparation, development of research frameworks. Students mastery will be measured with a B or better in the course.

Summary of Data:

Number of Students Meeting Criterion:	12	Number of Students Not Meeting Criterion:	0
Total Number of Students Assessed:	12	Percent of Students Meeting Criterion:	%100

Third Means of Assessment for Outcome 1:

Final grade from CS 535: ST:Natural Language Processing;

Summary of Data:

Number of Students Meeting Criterion:	11	Number of Students Not Meeting Criterion:	0
Total Number of Students Assessed:	11	Percent of Students Meeting Criterion:	%100

Interpretation of Results for Outcome 1:

Our graduate student cohorts tend to develop strong technical backgrounds and foundations for advancing thesis topics and/or proposals after the first two semesters. They tend to demonstrate the necessary technical skills and knowledge for developing and carrying out their proposals in a timely manner. In addition, a large percentage of our graduate cohort demonstrate a strong motivation for inquiry and analysis at complex concepts in data science and its applications such as NLP.

Student Learning Outcome 2:

Successfully apply knowledge of advanced programming methodology to complex problems in computer science.

NMHU Traits Specifically Linked to Student Learning Outcome 2

- Critical and Reflective Thinking Skills
- Effective Use of Technology
- Effective Communication Skills
- Mastery of Content Knowledge and Skills

First Means of Assessment for Outcome 2:

Final defense from CS 697: Field Project evaluating current individual field research and writing in preparation of graduate field project. Students' ability to successfully accomplish the above topics in their field project will be measured by an achievement of a P in their final grade and successful presentation and defense of their field project to their committee.

Summary of Data

Number of Students Meeting Criterion:		Number of Students Not Meeting Criterion:	
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Total Number of Students Assessed:	1	Percent of Students Meeting Criterion:	
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Second Means of Assessment for Outcome 2:

Final defense from CS 699: Thesis evaluating current individual field research and writing in preparation of graduate thesis. Students' ability to successfully accomplish the above topics in their thesis will be measured by an achievement of a P in their final grade and successful presentation and defense of their thesis to their committee.

Summary of Data:

Number of Students Meeting Criterion:	1	Number of Students Not Meeting Criterion:	0
Total Number of Students Assessed:	1	Percent of Students Meeting Criterion:	%100

Interpretation of Results for Outcome 2:

The low number of graduate students completing their defense is noticeably low. Many of them accepted internships or other full-time employment during spring 2018 semester thereby delaying what would be their expected defense dates to fall 2018. The graduate student cohort that has completed all requirements but defense includes four students who expect to complete their defense in fall 2018 semester.

Utilization of Results:

To address the timely scheduling and completion of successful thesis defenses we will be more aggressive at providing resources and support to graduates in planning their deliverables to alleviate delays caused by internships and employment. Increased early support for thesis writing and development may assist in dealing with time crunch that comes with post graduate work offers. Premature transitions to the CS field is seen as a positive but even more so if we can have more of the defense deliverables completed before such (positive!) scenarios.

Changes to Program Based on Results:

Provide early and often support and direction for thesis research planning and writing. This support is to be introduced and reintroduced at the onset of each new semester where each graduate student has the opportunity to construct and/or modify a proposed timeline of their program activities with identifiable deliverables and milestones.

Retention Strategies:

Most if not all of our current graduate students remain in the program through degree completion. Contributing to this scenario is that our graduate faculty take an active approach to helping students develop research topics of their interest. Additionally, a portion of our graduate cohorts are awarded graduate assistantships from the department or from external funding. This form of funding is a critical indicator for retention. More department assistantships should be available to sustain this trend.