

ASSESSMENT REPORT
Spring 2021 – Fall 2023

Software Systems Design
(Instructional Degree Program)

BSSD
(Degree Level)

Program Mission:

The general mission of the SSD Program in the Department of Media Arts & Technology is to educate students in the technical skills, theoretical underpinnings, and the sociocultural context for the field of software development. SSD seeks to inspire students to work creatively and collaboratively towards the goal of contributing to our own communities and to innovate and excel in the software landscape. Collaboration, experimentation and a drive to push the boundaries of current technology platforms.

Student Learning Outcome 1:

Students will demonstrate the ability to write object-oriented code and a basic knowledge of how computer memory and architecture work in relation with their written software.

NMHU Traits Specifically Linked to Student Learning Outcome 1

- Effective Use of Technology

First Means of Assessment for Outcome 1:

BSSD 3520 JavaScript. 80% of students should be able to attain a grade of C or better on the final written exam and final programming project.

Summary of Data:

Number of Students Meeting Criterion:	5	Number of Students Not Meeting Criterion:	2
Total Number of Students Assessed:	7	Percent of Students Meeting Criterion:	71%

Second Means of Assessment for Outcome 1:

BSSD 3410 Applied Algorithms and Architecture. 80% of students should be able to attain a grade of C or better on the final written exam and final hardware project.

Summary of Data:

Number of Students Meeting Criterion:	5	Number of Students Not Meeting Criterion:	0
Total Number of Students Assessed:	5	Percent of Students Meeting Criterion:	100%

Interpretation of Results for Outcome 1:

We had students outside of our discipline taking JavaScript and we could not motivate them to complete the work regardless of our attempts to layout expectations and consequences.

For Algorithms, all students did well with the expected workload, but we will introduce a larger focus on integrating the final project into their portfolio because some students are building technically proficient projects behind the scenes without a good visual demonstration of the complexity to impress potential employers.

Student Learning Outcome 2:

Students will demonstrate effective essay writing and presentation skills.

NMHU Traits Specifically Linked to Student Learning Outcome 2

- Effective Communication Skills
- Critical and Reflective Thinking Skills

First Means of Assessment for Outcome 2:

BSSD 3520 JavaScript. Students will write a research paper on an emerging concept in the field of software. 80% of students should be able to attain a grade of C or better.

Summary of Data

Number of Students Meeting Criterion:	5	Number of Students Not Meeting Criterion:	2
Total Number of Students Assessed:	7	Percent of Students Meeting Criterion:	71%

Interpretation of Results for Outcome 2:

Students still attended primarily on Zoom even though the pandemic protocols ended. We continued to follow the same format with having them write project proposals and

present their work. We plan to create a more structured format for project proposals and include this in the requirements. We are also experimenting with requiring an hours estimation as if this were a proposal a contractor would send out for bidding on work. The students failing this were the same students who did not complete the final project — and this assignment is tied to the final.

Student Learning Outcome 3:

Students will demonstrate mastery in their area of emphasis.

NMHU Traits Specifically Linked to Student Learning Outcome 3

- Mastery of Content Knowledge and Skills

First Means of Assessment for Outcome 3:

BSSD 3340 Practicum I and BSSD 4340 Practicum II. Students will create a project for a client and meet deadlines as agreed upon with client, demonstrating mastery of their emphasis area. 80% of students should be able to attain a grade of B or better.

Summary of Data

Number of Students Meeting Criterion:	5	Number of Students Not Meeting Criterion:	0
Total Number of Students Assessed:	5	Percent of Students Meeting Criterion:	100%

Interpretation of Results for Outcome 3:

Students still chose to attend over Zoom for this class, but most of our clients were accommodating with this. A few wanted to meet in person so we were able to require the students to come those dates. For the most part, these students were good about turning in their weekly reports which we count as a homework grade for this class. These reports attempt to mirror the agile development practice of a stand-up meeting which the students will have when employed. We are planning to start incorporating more group reporting even if the students are not on the same project, so that they get a better sense of the real-world experience.