

UNIT REPORT

**Learning Outcomes Software
Engineering (MS) 2019**

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Learning Outcome Report

1 Manage software systems

Learning Outcome Statement:

Manage the development of software systems including staffing, planning, project tracking, and risk management.

Start: 09/01/2018**Means of Assessment:**

- 1.The Critical Design Review (CDR) is the final team project review that presents a plan proposed by the Students to satisfy Stakeholder requirements and would realize a notional system concept that would proceed into fabrication, demonstration, and test and would meet stated performance requirements within cost, schedule, and risk. Manage the development of software systems including staffing, planning, project tracking, and risk management. This allows students to develop and follow a framework that can enable students to manage future projects. (Software Project Management F2018)
2. Team Project (Practicum S2019)

Results of Assessment:

1. Students' Avg is 86 with 82% of students scoring more than the department 80% acceptable value.
2. Students' Avg: 95 which is much higher than department 75% acceptable value.

Departmental/Program Review:

Students had a good performance with means of 86% and 95% in both courses for this learning outcome.

Recommendations/Action Plans for Program:

For Software Project Management, Students have some difficulty conducting a cost estimate necessary to how the project is to be resourced. Cost analysis is often misunderstood and frequently overlooked. The practice encompasses many areas of a project's business management and combines the knowledge of many different disciplines. Students often do not have the experience to understand the context of cost analysis and the far-reaching impacts on a project and its success.

Action 1: Introduce cost structure during requirements analysis.

Action 2: Develop templates to guide project estimation

Recommendations for Future Assessments:

there are no changes in the means of assessment and criteria to evaluate this learning outcome

Follow- up on Last Year's Action Plan:

none

Longer term follow up:

none

2 Specify system requirements

Learning Outcome Statement:

Specify system requirements needed to build systems that exhibit correct behaviors as specified by the different constituents, as well as trace and validate system requirements throughout the development cycle.

Start: 09/01/2018**Means of Assessment:**

Software Project Practicum - Team Project

Results of Assessment:

Team Project

Students' Avg: 91

12 of 12 (100%) scored over 75

Departmental/Program Review:

Students' average is 91% and all the students scored over department 75% acceptable value. Students' performance is acceptable.

Recommendations/Action Plans for Program:

none

Recommendations for Future Assessments:

No future recommendations to change the means and criteria of this learning outcome

Follow- up on Last Year's Action Plan:

none

Longer term follow up:

none

3 Develop solutions

Learning Outcome Statement:

Develop and document well-defined solutions that satisfy constituents' needs using high-level architecture models and detailed level design entities, and to justify decisions made during architecture and design

Start: 09/01/2018

Means of Assessment:

Software Project Practicum - Team project

Results of Assessment:

Team Project

Students' Avg: 91

12 of 12 (100%) scored over 75

Departmental/Program Review:

Students average is 91% and all the students scored higher than department 75% acceptable value.

Recommendations/Action Plans for Program:

none

Recommendations for Future Assessments:

There are no modifications to the means of assessment or its criteria for this learning outcome

Follow- up on Last Year's Action Plan:

none

Longer term follow up:

none

4 Ensure quality

Learning Outcome Statement:

Ensure quality of both the process used for development and the product under development using metrics, testing, and various other quality assurance techniques

Start: 09/01/2018

Means of Assessment:

Software Project Practicum

Results of Assessment:

Team Project

Students' Avg: 87

10 of 12 (83%) scored over 75

Departmental/Program Review:

The students' average is 87% which is higher than the department 75% acceptable value. 83% of the students scored over 75%.

Recommendations/Action Plans for Program:

There is no action plan for this learning outcome

Recommendations for Future Assessments:

There is no change in the means of assessment or its criteria for this learning outcome

Follow- up on Last Year's Action Plan:

none

Longer term follow up:

none

5 Function within a high-performance development team

Learning Outcome Statement: Function within a high-performance development team, including leading development efforts

Start: 09/01/2018

Means of Assessment:

Software Project Practicum - Team Project

Results of Assessment:

Team Project

Students' Avg: 94

11 of 12 (92%) scored over 75

Departmental/Program Review:

Students' average is 94% and 92% of the students scored higher than the department 75% acceptable value.

Recommendations/Action Plans for Program:

There is no action plan. Students have a good performance in this learning outcome.

Recommendations for Future Assessments:

none

Follow-up on Last Year's Action Plan:

none

Longer term follow up:

none

6 Communicate effectively

Learning Outcome Statement: Communicate effectively with customers and among team members

Start: 09/01/2018

Means of Assessment:

1. Final presentation of the Critical Design Review (CDR). Students present their team project which is a plan proposed by the Students to satisfy Stakeholder requirements and would realize a notional system concept that would proceed into fabrication, demonstration, and test and would meet stated performance requirements within cost, schedule, and risk. Manage the development of software systems including staffing, planning, project tracking, and risk management. A group of professionals evaluate students communication skills. (Software Project Management F2018).
2. Software Project Practicum - Team Project

Results of Assessment:

1. Students' Avg. is 91. 94% of the students score 80% and above in their final project presentation.
2. Team Project
 - Students' Avg: 94
 - 11 of 12 (92%) scored over 75

Departmental/Program Review:

1. 94% of the students achieved more than department's 80% acceptable value for this learning outcome
2. Students average is 94% and 92% of the students scored higher than department acceptable value.

Recommendations/Action Plans for Program:

none, students have a good performance in this learning outcome

Recommendations for Future Assessments:

There is no change in the means or criteria to assess this learning outcome.

Follow-up on Last Year's Action Plan:

none

Longer term follow up:

none