

**Assurance of Student Learning  
2018-2019**

Ogden College of Science & Engineering

School of Engineering and Applied Sciences

Architectural Science - 518

**Use this page to list learning outcomes, measurements, and summarize results for your program. Detailed information must be completed in the subsequent pages.**

**Student Learning Outcome 1:** Graduates will possess/ demonstrate the ability to identify, formulate strategies and solve technical problems

**Instrument 1** Analysis of pre-design of capstone project (comprehensive design)

**Instrument 2** Analysis of design development and construction documents of capstone project (Senior project)

**Instrument 3**

Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 1.

**Met**

**Not Met**

**Student Learning Outcome 2:** Graduates will demonstrate an ability to possess effective oral and graphic communication skills.

**Instrument 1** Appraisals from industry professionals of capstone projects

**Instrument 2** Analysis of 2<sup>nd</sup> and 3<sup>rd</sup> project in design studio II

**Instrument 3** Appraisal of student presentations by jurors at WKU Research Conference

Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 2.

**Met**

**Not Met**

**Student Learning Outcome 3:** Graduates will demonstrate the knowledge and capacity to manage a project through the different design phases.

**Instrument 1** Analysis of schematic design of capstone project

**Instrument 2** Appraisals from industry professionals of capstone projects

**Instrument 3** Student Portfolio

Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 3.

**Met**

**Not Met**

**Program Summary (Briefly summarize the action and follow up items from your detailed responses on subsequent pages.)**

Changes have been made to pre-requisite courses in the program to improve the outcomes. Courses which changes have been made are AMS 251, AMS 363, AMS 369 and AMS 469.

In addition, curriculum changes are being worked on by faculty on pre-requisites for AMS 363. New software technology is being introduced in the classroom to improve student graphic communication outcomes.

A thesis book has been added to the capstone to improve written communication.

Faculty in the program are also working on improving the rubric that is being currently utilized for assessments.

**Student Learning Outcome 1**

<b>Student Learning Outcome</b>	<b>Graduates will possess/ demonstrate the ability to identify, formulate strategies and solve technical problems</b>		
<b>Measurement Instrument 1</b>	Direct: <b>Analysis of pre-design of capstone project (comprehensive design)</b> Senior AS students work on a year-long capstone (fall and spring semesters). The students were assessed on the first phase of the capstone to evaluate their competency in pre-design tasks in a given design project.		
<b>Criteria for Student Success</b>	students will have a 3.0 satisfaction rating on a 4 point scale		
<b>Program Success Target for this Measurement</b>	75 % of senior students	<b>Percent of Program Achieving Target</b>	77 % of senior students
<b>Methods</b>	Students assessed 22. Student work on their project proposal, case-study, site analysis, program and code-review were analyzed based on a rubric. The rubric was completed by faculty in the AS program as well as industry professionals.		
<b>Measurement Instrument 2</b>	Direct: <b>Analysis of design development and construction documents of capstone project (Senior project)</b> Senior AS students work on a year-long capstone (fall and spring semesters). The students were assessed on the design development drawings and the set of construction drawings at the end of the spring semester.		
<b>Criteria for Student Success</b>	students will have a 3.0 satisfaction rating on a 4 point scale		
<b>Program Success Target for this Measurement</b>	75 % of senior students	<b>Percent of Program Achieving Target</b>	86 % of senior students
<b>Methods</b>	Students assessed 22. Student work on design development and construction drawings were analyzed based on a rubric. The rubric was completed by faculty in the AS program as well as industry professionals.		
<b>Measurement Instrument 3</b>			
<b>Criteria for Student Success</b>			

<b>Program Success Target for this Measurement</b>		<b>Percent of Program Achieving Target</b>	
<b>Methods</b>			
<b>Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 1.</b>			<b>Met</b>
<b>Not Met</b>			
<b>Actions</b> (Describe the decision-making process and actions planned for program improvement. The actions should include a timeline.)			
The program has implemented changes to pre-requisite courses. Faculty have introduced a programming component in design studio – AMS 369. Additional assignments to cover areas of site analysis and code review have been introduced in two courses AMS 363 and AMS 469 to improve pre-design outcomes.			
Faculty in the Architectural Science Program are also currently working on updating the rubric that is used for measuring the outcomes.			
<b>Follow-Up</b> (Provide your timeline for follow-up. If follow-up has occurred, describe how the actions above have resulted in program improvement.)			
The changes are being implemented in courses currently. Follow up will occur in the 2020-2021 assessment period.			

<b>Student Learning Outcome 2</b>			
<b>Student Learning Outcome</b>	<b>Graduates will demonstrate an ability to possess effective oral and graphic communication skills.</b>		
<b>Measurement Instrument 1</b>	Direct: <b>Appraisals from industry professionals of capstone projects presentations.</b>		
<b>Criteria for Student Success</b>	Students will score a minimum 3.0 satisfaction on a 4 point scale		
<b>Program Success Target for this Measurement</b>	75% of Students	<b>Percent of Program Achieving Target</b>	91 % of senior students
<b>Methods</b>	Students assessed 22. At the end of the semester students present their capstone work to industry professionals and faculty. Students are assessed on their graphic and oral skills. The rubric was completed by faculty in the AS program as well as industry professionals.		
<b>Measurement Instrument 2</b>	Direct: <b>Analysis of 2<sup>nd</sup> and 3<sup>rd</sup> project in design studio II</b>		
<b>Criteria for Student Success</b>	Students will score a minimum 3.0 satisfaction on a 4 point scale for project 2 and project 3		
<b>Program Success Target for this Measurement</b>	75% of Students	<b>Percent of Program Achieving Target</b>	88 % of senior students

<b>Methods</b>	Students assessed 13. Student design work on project 2 and 3 were analyzed based on a rubric. At the completion of each project students create a power point and/or presentation board highlighting necessary components of the project. Students also give a verbal presentation of their projects. The rubric was completed by faculty in the AS program as well as industry professionals who attended student presentations for project 2 and 3. The assessments were completed during the presentation itself. A minimum of two assessments per student were completed.		
<b>Measurement Instrument 3</b>			
<b>Criteria for Student Success</b>			
<b>Program Success Target for this Measurement</b>		<b>Percent of Program Achieving Target</b>	
<b>Methods</b>			
<b>Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 2.</b>		<b>Met</b>	<b>Not Met</b>
<b>Actions</b> (Describe the decision-making process and actions planned for program improvement. The actions should include a timeline.) Faculty in the As program have extended the assessment to include a written component. A thesis book has been added to the capstone course. Faculty have reviewed the AMS 251 course for the graphic communication component. Students are being instructed on a new software technology. Additional presentation opportunities have been created for students in design studios I (AMS 369) & II (AMS 469).			
<b>Follow-Up</b> (Provide your timeline for follow-up. If follow-up has occurred, describe how the actions above have resulted in program improvement.) Follow up for communication will happen in the 2019-2020 assessment.			

<b>Student Learning Outcome 3</b>			
<b>Student Learning Outcome</b>	<b>Graduates will demonstrate the knowledge and capacity to manage a project through the different design phases</b>		
<b>Measurement Instrument 1</b>	<b>Direct: Appraisals from industry professionals of capstone projects</b>		
<b>Criteria for Student Success</b>	Students will score a minimum 3.0 satisfaction on a 4 point scale		
<b>Program Success Target for this Measurement</b>	75% of Students	<b>Percent of Program Achieving Target</b>	77 % of senior students

<b>Methods</b>	Student work on design development and construction drawings were analyzed based on a rubric. The rubric was completed by faculty in the AS program as well as industry professionals.		
<b>Measurement Instrument 2</b>			
<b>Criteria for Student Success</b>			
<b>Program Success Target for this Measurement</b>		<b>Percent of Program Achieving Target</b>	
<b>Methods</b>			
<b>Measurement Instrument 3</b>			
<b>Criteria for Student Success</b>			
<b>Program Success Target for this Measurement</b>		<b>Percent of Program Achieving Target</b>	
<b>Methods</b>			
<b>Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 3.</b>			<b>Met</b>
<b>Not Met</b>			
<b>Actions</b> (Describe the decision-making process and actions planned for program improvement. The actions should include a timeline.)			
Faculty are working to revise course sequence to enable students to use technology more effectively AMS 351 will be taught to the students in the spring semester of the sophomore year. It will be a pre-requisite for AMS 363 which will help students create an enhanced set of construction documents.			
<b>Follow-Up</b> (Provide your timeline for follow-up. If follow-up has occurred, describe how the actions above have resulted in program improvement.)			
This will be assessed in the 2020-2021 academic year.			