CNM ANNUAL STUDENT LEARNING ASSESSMENT REPORT
Due to the Student Academic Assessment Committee by October 15

PART 1: REPORT INFORMATION

Report Year and Contact Information			
2018-2019	Phyllis Cece	pcece@cnm.edu	50023
Academic Year	**Contact Person**	**CNM Email**	**CNM Office Extension**

Subject of this Report
AT--ARDR_AAS--Architectural/Engineering Drafting Technology Degree

PART 2: CONTEXT IN WHICH THE ASSESSMENT TOOK PLACE

Program/Area Highlights and Successes (Wherever applicable, include course completion rates, job placement outcomes, and licensing examination pass rates. See the program information dashboard at https://livecnm.sharepoint.com/sites/Dashboards/SitePages/Program%20Information%20Dashboard.aspx (access restricted to CNM employees) and other reports at https://www.cnm.edu/depts/opie.)
Approx. 93% of the graduating students in the Fall 2018/Spring 2019 cohort seeking employment were working in their field before or directly after graduation. As in the past, the majority were hired in the MEP sector. We had more requests for employees than students to fill the available positions. Employers are starting to hire our students much earlier in the program as part-timers (usually after they have learned Revit), due to the demand exceeding the supply. Despite the demand by industry, ARDR/CNM recruitment efforts, etc., enrollment is low. First term enrollment continues to decrease from past years and with the typical first term attrition rate, upper term classes are struggling to make.   2018-2020 Catalog: Major catalog revisions were developed and approved through the CCC process as part of this assessment cycle. Therefore, as of the 2018-2020 catalog, the requirements for the ARDR AAS degree have been reduced from 66-69 to 61-63 credit hours. The purpose was to more closely align with state requirements and to streamline the path to graduation for students. After careful consideration three courses were deactivated, the first term residential lab hours were reduced, a first term BIM software class was added, and two existing AutoCAD classes were combined into one.

Changes Implemented During the Past Year in Support of Student Learning
To reduce the overall credit hours for graduation, the program deactivated the third materials and methods class (ARDR 1301 – MMIII) as of the 2018-2020 catalog. The course material from that class was carefully reviewed and redistributed to the remaining two materials and methods lecture classes and into each of the five term, main ARDR labs.

This material is highly technical and difficult for many students to grasp. Therefore, another benefit to this choice is the ability to use more interactive exercises in a lab environment to deliver and reinforce this content vs. a primarily lecture format.

PART 3: REPORT ON ASSESSMENT OF STUDENT LEARNING

Assessment Method	Type of Assessment Tool	Population or Course(s) Assessed	Graduate Learning Outcome(s) Assessed	Mastery Level (E.g., "Minimum score of 3 on a rubric scaled 0-4" or "Minimum score of 75%")	Targeted % Achieving Mastery	Outcome
QUIZ Recognize and identify major building components in standard, basic wall sections	Direct & Internal	1st through 5th Terms	Materials and Methods	Minimum score of 75%	74%	Target met

Summary of Assessment Findings
A quiz, specifically designed for this assessment report, was administered to the students in their 5th term lab. It consisted of identifying and selecting the correct major components found in three basic wall sections commonly used in residential and commercial building construction (wood frame, steel frame, and CMU bearing wall). The students have previously been responsible for drawing these exact wall sections in one of their labs, so it was not the first time they encountered this material. They were given a list of building components using standard construction terminology and organized in the industry standard CSI Masterspec format. They were asked to match each item on the list to a specific component on each wall section drawing.

Interpretation of Assessment Findings
The main objective of the materials and methods classes is exposure to very basic building systems so that a good foundation is established for future on-the-job training. Students participate in reading assignments, various in-class exercises, and multiple drafting projects.

The average score is reported with the minimum student achievement target met. The weakest results were found in the identification of components for a typical CMU load bearing wall section and the best results were seen in a typical Residential Wood frame wall section. This correlates directly with the relative complexity of each wall section; wood frame being the least complex and CMU bearing wall the most.

Students with experience in construction or having part-time work experience in industry continue to achieve better results.

Action Plan in Support of Student Learning (Describe changes to be made that are based at least in part on the assessment interpretation. If the assessment did not yield useful information, describe changes to be made in the assessment methodology and/or criteria.)

Current and past assessment data have indicated the importance of regular usage and repeated practice of course material to overall performance. The ARDR program is currently successfully designed to present entry level construction knowledge, basic plan reading, and basic

plan production in a repetitive fashion through assignments in each of the five terms' labs and co-requisite construction content classes.   A concerted effort must now be taken to continue this focus while implementing the new catalog revisions for the program.

In addition, as assessment findings also indicate, it is necessary to continue to encourage student engagement with industry professionals as soon as possible by means of job shadowing, internships, part-time work, field trips, class visits, etc.

Please select all of the following that characterize the types of changes described in the above action plan:

☐ Assessment criteria revision	☐ Assessment methodology revision	☐ Assignment revision
☐ Budgetary reallocation	☐ Change in teaching approach	☐ Course content revision
☒ Curricular Revision	☒ Faculty training/development	☐ Process revision

Recommendations, Proposals, and/or Funding Requests	Budget Needed
Due to faculty retirement and enrollment pressures, the program is again being significantly revised for the next catalog cycle. It is strongly recommended that full-time faculty be hired who have BIM software skills and real-world experience in commercial construction. New faculty should be required to train in best practice methodologies in each specific discipline they are teaching. It will be important to once again coordinate the classes and provide the progression and repetition of course material that has been found to be vital to student success. Exit competencies for the new program format will need to be reviewed and revised as necessary.	Click or tap here to enter text. Click or tap here to enter text.

PART 4: REMAINING YEARS IN CURRENT ASSESSMENT CYCLE PLAN (including any revisions) **– OR -- UPCOMING ASSESSMENT CYCLE PLAN** (if this was the final year)

Years of Full Cycle	Next Year's Assessment Focus (Describe how the next planned assessment is expected to provide information that can be used toward improving student learning.)
5	Problem Solving

Graduate Learning Outcomes to Be Assessed	Years in which Assessment Is Planned	Population/Courses to Be Assessed	Planned Assessment Approach
Computer Aided Drafting: Student will use software with entry level proficiency to create, edit, share, and output construction documentation.	Fall 2016; Spring 2017	1st through 5th Term	Summary data is collected in ARDR 2999 from an exit interview and a comprehensive drawing portfolio
Construction Drawings: Student will be able to produce fundamental architectural/engineering drawings for use in construction.	Fall 2017; Spring 2018	1st through 5th Term	Summary data is collected in ARDR 2999 from an exit interview and a comprehensive drawing portfolio.
Materials and Methods: Student will demonstrate a working knowledge of the terms and designations for construction materials and identify basic components utilized in typical building systems.	**Fall 2018; Spring 2019**	**1st through 5th Term**	**Quiz**
Problem Solving: Student will demonstrate a systematic approach to problem solving in the professional architectural/engineering environment.	Fall 2019; Spring 2020	1st through 5th Term	pending
Professional Practice: Student will have the ability to participate in an architectural/engineering professional office simulation, exhibit workplace behavior, and work in a team environment.	Fall 2020; Spring 2021	1st through 5th Term	pending