

ARDR-ARCH Advisory Committee Minutes, Spring 2024

Date: Wednesday, February 28, 2024

Number of Attendees: 21

Called to order: 12:30 PM

Adjourned: 2:05 PM

Chairperson: Bruce Gunderson

Recorder: Jennifer Woods

Location: Advanced Technology Center and Zoom

Members present from industry: **Ron Balmer**, Southland Industries; **Penny Dudley**, Penny Design; **Bruce Gunderson**, Hartman Majewski Des. Grp.; **Daylene Horn**, Chavez Grieves; **Sam Johnson**, Pattison Sign; **Mike May**, Future Focused Education; **Bart Rohal**, Steel Detailing Office; **Julie Sebelin**, Molzen Corbin; **Russell Worf**, DPS; **Andrea Glaser**, B & P/former CNM student

Members present from CNM: **Joseph Andrade**, Instructor; **Morgan Cartwright**, Instr. Tech.; **Eric Ghahate**, CM Instructor, Program Chair; **Sharon Gordon Moffett**, Interim Dean; **Jackie Lamoureux**, Interim Assoc. Dean; **David Miertschin**, Instructor; **David Ortiz**, Lab Manager; **Ashley Prelo**, Outreach Mgr. WCS; **Lisa Torraca**, CNM student/ Intern with B & P; **Jennifer Woods**, Academic Tech Asst.; **Katy Woodward**, CNM Marketing

Next scheduled meeting: TBD for Fall 2024

I. Welcome/Introductions: Bruce started the meeting and everyone introduced themselves.

II. Minutes: Minutes from the Fall 2023 meeting approved as written.

III. Reports:

- 1. College Updates:** Sharon reported: We have a new VP of Education & Learning who will be conducting a search for a new permanent Dean of STA. After that person is chosen, we will search for two new permanent associate deans. The legislative session wrapped up, and CNM was involved in budget concerns. This was Black History month, and CNM hosted multiple events. The college has been working on the annual college-wide program review (CIPR). College Day is March 8. The third annual Women in Trades Summit is on March 22. Industry partners are welcome to set up information tables at either event. The state SkillsUSA competition is April 11-13. CNM graduation is May 4.
- 2. Enrollment and Graduation Stats:** Jackie reported: CNM has just over 16,000 students this term. STA has about 3,000 students. In fall 2023 we had 3 AAS graduates in ARDR, and 7 certificate graduates. Enrollment this term in ARDR and ARCH are lower than previous terms. ARDR has 96 students (fill rate is 38%), and ARCH has 55 students (fill rate is 27%). Enrollment needs to be boosted in both areas.
- 3. Equipment/Perkins purchases:** The faculty have made purchase requests through Perkins funding.

IV. Old Business: Jackie Reported: ARDR 1116 will replace 1105 (Construction Documents) This will happen in the fall of 2024, but will not appear in the catalog until 2025. This fall we will offer a special topics course linked to the 1116 class. We are still working on curriculum and name changes. David is continuing to work with UNM in order to align classes, for the Pre-ARCH degree.



V. New Business: Ashley reported on the WCS, Workforce and Community Success division. This is a one stop shop for connecting resources for students and our industry partners. Ashley's team can help set up internships, apprenticeships, job shadowing, service learning, and create job fairs and info sessions and, there is money available to help fund internships. The hirecnm link allows industry to post jobs. For more information contact aprelo@cnm.edu.

Work-based learning is a big issue at the college. The goal is to provide every CNM student with a work-based opportunity. employersupport@cnm.edu.

At the last meeting, Aaron K. suggested some changes to the learning outcomes of these two programs. We will be making additional changes for the next academic year. The ARCH class called *Physics and Math for Design* will be cut from the curriculum, because UNM no longer requires students to take physics. We may or may not keep this class because students enjoy this class, and the instructor is top-notch.

Joseph showed the group two documents that he and David M. created to deal with the student learning outcomes. (The process for making these changes is different from the process for changing the curriculum or renaming the program). CNM graduates are hired in many different companies that specialize in different aspects of design and construction. **Documents are attached to these minutes.**

The program is called Architectural Engineering/Drafting Technology, which doesn't really encapsulate all the industries that use these skills. Jackie did a search at other colleges in order to find out what they called their similar programs, and the names were varied. For more information, please contact Joseph at dandrade1@cnm.edu.

Ron said that the technology (AutoCAD, Revit, Bluebeam) is used by so many industries besides architecture, that we should align the name and SLOs with technology, not just architecture. The term AEC (Architecture, Engineering, Construction) is better. Sam said he likes AECO too (with operator). The college will draw more students if they know that the program is technology-oriented. A lot of them are "makers", and do the hands-on part of a project. Others are technical designers. Russell said he agrees AEC is a better term. The degree would have a wider range of subjects, so that the graduate could work in different industries. Keeping the SLOs broad and generic is better. Mike M. suggested using the term "Minecraft" as a marketing tool to draw students. He also said that the high school students he works with are already in tune with the technologies because of gaming. David said that we need to start packaging the CNM offerings to a younger audience, before they decide on which University they want to go to.

Sharon mentioned that the college is leaning toward CBE, competency-based education. APS is already leaning toward this. David said that if we are to integrate different types of learning in order to accommodate different students, then we may have to do away with the idea of getting a degree. Often our students leave before they graduate, because they get hired. Evidence shows that maybe a degree is not the goal. The college should not be penalized for this. A lot of our students have an a la carte attitude toward education and are not looking for a degree.

VI. Reports from Industry Members: Daylene agreed that maybe some of the issues mentioned above need to be implemented. She thinks STA puts out a lot of amazing students, and many work at Chavez Grieves.

VII. Adjournment: 2:05 pm. Addenda attached.



Architectural/Engineering Drafting Technology, Associate of Applied Science

Currently On the Catalog home page:

The Architectural Engineering Drafting Technology (ARDR) program teaches the theory and practice of construction technology. Earn an Associate of Applied Science or certificate and pursue work as an Operating Engineer, Construction Supervisor or Manager, and more.

PROPOSED:

The Project Modeling and Documentation Technology Program (A|E|C Project Tech)

The Project Modeling and Documentation Technology program (A|E|C Project Tech) prepares graduates for entry-level careers as design technologists. Courses introduce students to common construction materials and methods of assembly, including the application of building science for use in the many industries associated with the building procurement processes.

Combined with training in design and modelling software students will learn how to produce, assemble, and communicate information according to traditional documentation and emerging modeling standards. Standards utilized daily by A|E|C and other project-based industries focused on design activity and the modeling of its information.

Software training centers on computer-aided-design, building information modeling, document management, and project planning programs commonly utilized in the development and completion of AECO and other projects.

Pursue work in construction, construction project management, design drafting, building information modeling, BIM coordination, document management, facilities management, film production, or any of the other numerous careers concerned with the larger building procurement, and by extension, *project* process. Earn an A|E|C Project Tech degree and create great value for yourself.

Learning Outcomes:

1. Computer Aided Drafting: Student will be able to produce fundamental architectural/engineering drawings for use in construction.
2. Material and Methods: Student will demonstrate a working knowledge of the terms and designations for typical construction materials, an understanding of their source, processing, and installation as part of building systems.
3. Construction Drawings: Student will be able to produce fundamental architectural/engineering drawings for use in construction.
4. Problem Solving: Student will demonstrate a systematic approach to problem solving in the professional architectural/engineering environment.
5. 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.

Who will hire graduates?

- **Architects**
- **Construction firms**
- **Engineers**
- **Homebuilders**
- **Engineers**
- **Architectural product manufacturers**
- **Facilities management departments of corporations**
- **Governmental agencies**
- **Project-based industries**

CIP Keywords: building science; building information modelling; standards; documentation; project; technology; building procurement; modeling facility management; specifications; general purpose technology; information.

CIP Codes:



Currently On the Catalog home page:

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PROPOSED:

The Architectural Engineering Construction Modeling and Documentation Technology (A/E/C Doc Tech) Program teaches the theory and practice of building science and sustainability, information modeling systems, and documentation as practiced by the Architectural, Engineering, and Construction professions.

Earn the AEC Doc Tech degree and pursue a career as a Documentation Specialist with strong basic skills in modeling and drawing software, detailing, building science, and plan reading.

Currently on the ARDR Degree Page:

The ARDR program utilizes up-to-date computer-aided drafting software applications to train drafting technicians for the Architectural/Engineering/Construction (A/E/C) industry. Drafting is taught in combination with the principles of architectural/engineering graphic conventions and the theory and practice of construction technology. The curriculum also concentrates on the development of communication, teamwork, and problem solving skills necessary to prepare students for the architectural/engineering office environment.

PROPOSED:

The AEC Doc Tech program trains students in the software technology, building sciences, and design documentation as practiced by for the Architectural/Engineering/Construction (A/E/C) industry. Incorporated in this project-based curriculum, students are taught a wide variety of industry standard software, documentation graphics, and contemporary building practices. A sharp focus is placed on problem solving skills, teamwork, and interpersonal communication skills.

Currently on the Certificate Pages:

Commercial Building Systems Design Coordination, Certificate of Completion Page

This certificate comprises Terms 1 and 4 of the Architectural/Engineering Drafting A.A.S. degree

PROPOSED:

Commercial Building Systems Design Coordination, Certificate of Completion focuses student learning on the software technology, building sciences, and design documentation as practiced by for



School of Skilled Trades & Arts

the Architectural/Engineering/Construction (A/E/C) industry as they specifically relate to commercial single use development employing structural walls, site circulation, and engineered systems.

Commercial Development Design Coordination, Certificate of Completion Page

This certificate comprises terms 1 and 3 of the Architectural/Engineering Drafting Technology A.A.S.

PROPOSED:

Commercial Development Design Coordination, Certificate of Completion focuses student learning on the software technology, building sciences, and design documentation as practiced by for the Architectural/Engineering/Construction (A/E/C) industry as they specifically relate to commercial multi-use development employing steel framing, vertical circulation, and enclosure systems.

Residential Development Design Coordination, Certificate of Completion Page

This certificate comprises Terms 1 and 2 of the redesigned ARDR AAS degree, which focuses on fundamentals (Term 1) and residential design elements (Term 2).

PROPOSED:

Residential Development Design Coordination, Certificate of Completion focuses student learning on the software technology, building sciences, and design documentation as practiced by for the Architectural/Engineering/Construction (A/E/C) industry as they specifically relate to residential development employing Type V construction, space planning, site zoning and planning, and building moisture management.