

**December 4, 2020
Zoom Virtual Meeting Room
Meeting Convened at 1:01 p.m.
Meeting Adjourned at 2:30 p.m.
Facilitator: Rose Anne Kings**

COMMITTEE MEMBERS

Robert Arens, Associate Department Head,
Cal Polytechnic State University
Suyama Bodhinayake, Architect, Bauer Architects
Ron Culver, AIA,
Form Found Design & Michael W. Folonis
Architects
Adriana Detrinidad, Field Representative,
New School of Architectural and Design
Brad Flowers, Project Manager, LPA Inc.
Heather Flood, Chair, Architecture,
Woodbury School of Architecture
Daniel Gehman, Principal Architect,
Danielian Associates Architects Planners
William Itzen, Principal, Itzen
Francik Khalili, Designer, Studio Francik Khalili LLC.
Ron Krasnitz, Businessman, retired
Christine Lampert, Principal Architect,
Lampert Dias Architects Inc.
Don Lee, Home-Design Architects
David Molinaro, Project Manager, Taylor Design
Angel Montes, Director of Admissions and Recruitment,
SCI-Arc
Paras Nanavati, Principal, PNS Studios
Trang Nguyen, Associate, Perkins Eastman
Dwayne Oyler, Faculty, SCI-Arc
Eric Pan, Architect, Senior Associate,
Perkins Eastman
Nick Pisca, Founder, 0001Design
George Proctor, Architecture Dept. Chair, CPPARC
John Secor, Principal Architect, Archetype International
Michael Stone, Associate/Senior Designer,
Bassenian Lagoni
Ozzie Tapia, Project Designer, LPA Inc.
Greg Tate, Associate Principal, Bauer Architects
Hessam D. Vakili, Designer, Tait & Associates
Ray Varela, Design Principal, Carrier Johnson

EX-OFFICIO

Dean Abernathy, Faculty, OCC
Christina Anchondo, Outreach Specialist,
Elaine Devlin, Staff, Career Education, OCC
Steve Fuchs, Faculty, OCC
Rose Anne Kings, Faculty, OCC
Miles Kushin, Faculty, OCC
Christine Obnial, Faculty, OCC
Lori Pullman, Faculty, OCC
Joseph Sarafian, Faculty, OCC
Daniel Shrader, Dean, Technology, OCC

ADVISORY COMMITTEE MEETING SUMMARY

1. Welcome & Introductions

- Committee members introduced themselves and confirmed their respective titles and roles at their respective companies.
- Rose Anne G. Kings reviewed the role and responsibilities of this meeting as follows:
 - Review and access the structure, program-level outcomes and curriculum of the Architectural Technology program;
 - Ratify and recommend changes to program structure, PSLOs and curriculum so that the program and curriculum align to stated occupational outcomes and industry needs and requirements.

2. Program Outcome Data

- **Review and ratification of Programs and Program- Level Outcomes (PLOs)** The following PLOs were reviewed and ratified:
 - Architectural Design 1 & 2
 - An entry-level professional position at an architectural or related design office.
 - Critical thinking, design, and visual communication for successful transfer to a university professional program in Architecture and/or related Environmental Design.
 - A junior/intermediate level drafting/design position at an architectural or related firm.
 - Design/Build: Design, develop, and construct small, sustainable projects.
 - Digital Fabrication for Architecture: Design, develop, and construct three-dimensional environmental design installations and objects using digital fabrication tools.
 - Environmental Resource Management: Provide students with the skills and resources needed to find jobs across all industry sectors related to environmental resource management.
 - FrameCAD Steel Design: Successful students in this program will be able to design and produce digital files for a small structure using FrameCAD Structure and Detailer software and export the file for production in FrameCAD Factory.
 - FrameCAD Steel Production:
 - Successful students in this program will be able to safely manufacture steel frame custom components using a FrameCAD F325iT machine and safely assemble the components into a structure.
 - Successful students will be able to operate and maintain a FrameCAD machine and be able to document projects, materials, and machine records.
 - Successful students will be able to organize and schedule project workflow to utilize the machine and workers efficiently and safely.
 - Integrated Project Design: Prepares students to design, develop, virtually construct, administrate, and prototype multi-disciplinary projects using BIM-based technology.
 - Sustainable Design: Prepares students to design, develop, analyze, and promote sustainable environmental design practices.
 - Design Innovations: Students will be able to design, plan, build, and produce power for a small structure at an entry level of skill in the design/build profession. *(new for Fall 2021)*
- **Biennial Program Review (BR) (Attached)**
 - The committee reviewed occupation/job titles and codes and wage information; and ratified “as is.”
 - There is a documented labor market demand for the job outcomes of this program.

- The wages shown on the BR support the earnings needed within the market to live in Orange County.
- The median earnings meet OC's cost of living (COL) wage.
- The median wages mostly exceed the OC COL wage.
- Enrollment and Completer Status and Trends
 - Healthy amount of job openings and job opportunities
 - Steady enrollment in the program and in courses
 - Certificate Numbers Down
 - Certificate numbers given to OCC students were down on the BR.
 - OCC numbers peaked in 2017-2018 with 48 certificates awarded.
 - 25 certificates awarded in 2018-2019
 - 20 certificates awarded in 2019-2020 (COVID-19 year)
 - Other colleges in the area had lower numbers.
 - Other colleges only have drafting and OCC has many programs.
 - The data regarding the number of certificates given in the past two years showed a decline.
 - A discussion ensued to help increase the number of certificates and AAs the program will give in the coming years.
 - Do better at promoting program completion to students in introductory courses
 - Provide economically disadvantaged students high powered computers capable of doing required coursework
 - Asking for computer donations from the professional community for economically disadvantaged students
 - Chromebooks are not enough
 - Inform students about what is needed to get licensure in Architecture.
 - Informing students will promote students to go into the field and attain certificates and associate degrees and be transfer ready.
 - Ron Culver with the American Institute of Architects (AIA) has offered to inform OCC students on what they need to do to become a licensed architect.
 - AIA has free courses and support groups for members and membership is free

- **Licensure/certification exam pass rates: (N/A)**

- **Employment Outcome Data**

- Institution Set Standard

Institution Set Standard (%)	Job Placement Rate (%)			
	2016	2017	2018	2019
75%	76.47	71.43	66.67	65.52

- **Perkins Program Core Indicators (Attach)**

- Core Indicator 1 shows the program does a good job with technical skill attainment.
- The committee made suggestions for improvements in recruitment, retention, and completions of economically disadvantaged students:
 - Found students without higher ability computers can get into the class, but can't do the work.
 - Anyone with excess computer equipment please donate it to our program.
 - Donated computers and equipment will be used for economically disadvantaged students.
 - The IT Department will wipe donated computers and make them ready for economically disadvantaged students.
- Completions and Transfer Ready
 - A discussion ensued to help increase the number of certificates and AAs the program will give out to nontraditional students and economically

disadvantaged students.

- Staff can do a better at promoting program certificates to students.
- Provide economically disadvantaged students high powered computers capable of doing required coursework.
- The chrome books handed-out are not enough computer power for students in the Architectural Technology program.
- AIA has offered to collect donated computers and equipment from our professional community.
- Inform students of campus support for economically disadvantaged students.
- The program is getting on board with Guided Pathways, outreach, and active recruiting with equity being increasingly important and emphasized.
- Inform students about what is need to get licensure in Architecture.
 - Informing students will promote students to go into the field and attain certificates and associate degrees to be transfer ready.
 - Ron Culver with the American Institute of Architects (AIA) has offered to inform OCC students on what they need to do to become a licensed architect.
 - Ron Culver suggested giving licensure information at the high school level so students think about becoming architects and will come to OCC to start making it happen.
 - Professor Kings covers licensure in intro to architecture and introduces students to the state website and shows them how to log hours from their part-time and full-time jobs.
 - NotLY (Not licensed yet) offers free seminars on the Architecture Registration Examination (ARE) and CRE (commercial real estate)
 - Started by Doug Noble and Karen Kensek at USC
 - Students can register and attend free classes and attend support groups
 - Students should send an email to dnoble@usc.edu with "NotLY Licensing Classes at USC to sign-up
 - David Molinaro in charge of licensing in the area
 - AIA offers free membership that includes:
 - Full exam prep type review programs in all local chapters
 - Study groups to get people through exams

3. Review of Last Advisory Committee Recommendations and Progress Report

- Goals Summarized from last meeting on December 13, 2019: The minutes were reviewed and approved by the committee.
 - 3 constituents are being supported:
 - 1. **research/academic path** (exploring undergraduate participation and connections between graduate and undergraduate architecture programs, focus on architecture computational research, urban lab opportunities, and other relevant design topics)
 - 2. **professional/traditional path** (preparing students to be emerging professionals and outlining a path to licensure and career paths, while still supporting the long-term values of critical design thinking, design literacy, and foundation drawing and communication skills), and
 - 3. **maker/entrepreneurial path**
 - Integrated FrameCAD as a construction technology and maker/entrepreneurial opportunity and developed the Design/Build as an academic and practical means of creating an active laboratory for design research and professional maker opportunities.
 - Rose Anne Kings wrote the curriculum.
 - Students have been taking the courses offered.
 - Things slowed down with COVID-19.

- FrameCAD is one of the options for the integrated project design certificate.
- We have a career path now through our FrameCAD certificates for specialty jobs in that area.
- FrameCAD made a prototype for an Armenian Refugee Housing Project that they will be using.
- Promoted the Environmental Resource Management and Sustainable Design programs as opportunities to collaborate with other programs and considered revisions to curriculum.
 - Sustainable design has been pretty popular with students.
 - Getting a lot of excited students taking the environmental classes.
 - The bigger certificate did not have the support at first; however, the third class was able to be offered this semester with an enthusiastic group of students doing a zero waste and sustainability report for a local restaurant.
 - Should see more collaboration with other programs
 - Talked to the program heads in fashion and culinary, and we're starting to work together
 - Still tweaking curriculum to make more intelligent connections
- Repositioning how we are can get the outdoor area slab finished so that students can have a workspace for classes and to relocate equipment into more practical locations for working and activities like pouring concrete.
 - The outdoor work environment is necessary to promote student health and to keep the indoor spaces free of bulky supplies and equipment.
 - We have two pads out back and they're all cracked and they're partially raised.
 - Everything on hold right now with COVID-19
 - The idea was to repurpose the pads, but the prices came in high.
 - DI- yard now
 - The area may be used for the design innovation certificate
 - We envision working out in the yard to get this workspace for students completed.
- Getting on board with Guided Pathways, outreach, and active recruiting.
 - Developing a clear vision and purpose that represents and serves the 3 constituents identified above
 - Need to be aware on the increasing need of equity especially with the divide widening with COVID-19
 - Community becoming more important now and need to reach out communally in a more digital world
 - Year two focus to be a balance between entrepreneurial efforts and environmental systems
 - Have a value wheel to share with others to show how we will drill specific methods and skill sets
 - Hoping to produce certain positive qualities in the program and quality students

4. Review of New Program Proposals/Developments

- Review of Existing Programs for Revision or Recommendations
 - Rose Anne Kings has submitted for two new certificates: Design Innovations (8 units) Credit and Non-Credit (free & repeatable) versions.
 - For credit first semester courses (4 units):
 - Arch A104 Intro to FrameCAD Steel Framing - existing course worth 1 unit
 - Arch A105 Architectural Drawing & Design Visualization 1 - existing course worth 2 units
 - Arch A106 Accessory Dwelling Unit Design – new course worth 1 unit
 - For credit second semester courses (4 units):
 - Arch A107 Tiny House Design – existing course worth 1 unit

- Arch A108 Solar Panels for Small Structures – new course worth 1 unit **or** Const A160 Solar Panels for Small Structures – new course worth 1 unit
- Arch A201 Design/Build 1 for Architecture – existing course worth 2 units **or** Arch A201H Design/Build 1 for Architecture Honors – existing course worth 1 unit
- Non-credit first semester courses (4 units):
 - Arch A004N Intro to FrameCAD Steel Framing - existing course worth 1 unit
 - Arch A005N Architectural Drawing & Design Visualization 1 – new course worth 2 units
 - Arch A006N Accessory Dwelling Unit Design – new course worth 1 unit
- Non-credit second semester courses (4 units):
 - Arch A007N Tiny House Design – existing course worth 1 unit
 - Arch A008N Solar Panels for Small Structures – new course worth 1 unit **or** Const A060N Solar Panels for Small Structures – new course worth 1 unit
 - Arch A001N Design/Build 1 for Architecture – new course worth 2 units
- Dean Abernathy and Rose Anne Kings are exploring ways to connect research, computational design, urbanism, and related design topics into a connected pathway for undergraduates and post-graduates.
 - Trying to make links to Call Poly and other transfer programs
 - Encouraging students to do computational design
- Curriculum
 - Design Innovations certificates have been approved for Fall 2021 and include new classes in: Accessory Dwelling Unit Design, Solar Panels for Small Structures.
 - Getting older students through these new classes
 - Getting high school students through these new innovative classes
 - Great introduction to our technology division
 - Several courses have been submitted for Online/Hybrid options
 - This allows for flexibility and promotes access for students.
 - Teachers did Emergency Remote Teaching classes (ERT).
- Equipment/Facilities
 - Kings and Abernathy have strategized for how to clear the outdoor Yard area and prep for slabs in order to support the Design Innovations classes as well as other design/build projects and courses.
 - Joseph Sarafian and Paras Nanavati would like to propose new integrated project management and visualization technology.
 - Outgrown our building- 20 to 25 years off to getting a new building, but in the line to get one

5. Work-Based Learning Opportunities

- Overview of existing work-based learning elements of program and gaps or needs
 - Use guest speakers to invigorate and educate our students
 - There will be gaps in student learning with COVID that we will need to address
 - Students doing the IOC competition- a hands-on design competition
- Advisor recommendations and referrals for new internships or apprenticeship opportunities
 - Students get jobs from advisory board members.
 - We have a semi-private Facebook that reaches over 500 people.
 - We have an OCC job board that advisors can post any open positions.
 - Christina Anchondo, Career Outreach Specialist, coordinates the OCC Career Fair. If you are interested in participating, please email her so she can add you to OCC's employer's list.

6. Industry Update & Employment Trends

- Emerging technologies and industry developments impacting instructional programs
 - Laser scanning (LiDar) used in the industry
 - Highly accurate at internalizing measure to document and capture a space
 - Evolved technology, not new tech, but ubiquitous instead of a luxury
 - Two types:
 - Aerial
 - Terrestrial
 - Both Architectural Design and Engineering and Construction spaces using this scanning for projects- very promising!
 - Predict it will be more ubiquitous because new iPhones and new iPads have a LiDar scanner interface
 - Blue Beam software knowledge needed (may be covered a bit in course curriculum in Arch A157, and Arch A158)
 - New hires need a knowledge and comfort on the biggest platforms used in presentations: WebX, Zoom, Team- OCC might consider offering a class in digital workflows
 - Love having guest speakers to discuss emerging technologies to prepare students
 - Some technology needs manipulating to use.
 - A need to work with students within the curriculum on how to develop new technology and interpret data better than just the standard out of the box stuff
 - Nick Pisca was asked to write plug-ins for architectural firms for LiDar scans to make them usable.
 - Need “Best Practices” specific to the hardware and software that is going to be used
 - The Best Practices topic would be great to test in an Arch A199: special topics course
 - Make a protocol for best practices so others such as adjuncts and the community can learn from the individual experimentation
 - Suggested to offer a survey type class in multiple alternative types of software
 - Students should be able to cross platforms.
- **Industry** hiring practices and trends
 - Lot of international sales in countries that have stimulus packages in the pandemic
 - Low level lay-offs in Architecture and Engineering in COVID-19
 - Trend to tested veteran automation
 - Almost all sales are international right now.
 - Subcontractors and suppliers seem to be struggling more with the pandemic.
 - People need to know how to navigate zoom or whatever they use to interface with clients.
 - The trend now is that architects are no longer the primary source of contact. That old way of doing things is disappearing.
 - People going to the electrician or other domains needed separately.
 - Train students to find a landing spot in a firm or go on to a five-year university.
 - Technology is completing evolving and altering the work environment.
 - New hires need critical thinking processes and versatility to compete in this field.
 - New hires need to know how to learn in the wide range of tools available.
 - New hires need to be self-directed to navigate the field.
 - Students get hired by our advisory board members.
 - We have a semi-private Facebook that reaches over 500 people.
 - We have an OCC job board that advisors can post any open positions.
 - We have a Spring Job Fair that committee advisors can participate in.

- OCC/Department & Transfer Schools' Response to Covid-19 Pandemic
 - People struggling and trying to support them
 - Greater amount of outreach with perspective students
 - Transfer schools giving slack to students
 - Transfer schools offering a greater amount outreach such as online portfolio workshops to those interested in transferring

7. Summary of Recommendations

- New or Revision of Curriculum/Classes or Program Structure
 - Two new certificates: Micro-Structure Design Technology (8 units) Credit and Non-Credit (free & repeatable) versions to include existing courses and the following new courses:
 - Accessory Dwelling Unit Design
 - Arch A106 (credit course)
 - Arch A006N (non-credit course)
 - Solar Panels for Small Structures course
 - Arch A108 (credit course)
 - Cons A160 (credit course)
 - Arch A008N (non-credit course)
 - Cons A060N (non-credit course)
 - Additional non-credit courses:
 - Arch A005N Arch Drawing & Design Visualization 1
 - Arch A001N Design/Build 1 for Architecture
 - Want to do something that might appeal to post graduates to help them engage in research component such as:
 - Urbanism
 - Suburban or Urban Lab
 - Look into running a special topics course, Arch A199, on how to develop new technology and interpret data better than just the standard out of the box stuff, a best practices course for dealing with massive data (way to experiment with this topic being a future course)
- New Equipment/Technology
 - Look into new software/platform purchases and the purchasing of licensing for the college:
 - Blue Beam
 - RevIt program
 - Plan Grid
 - Miro collaborative software
 - Lumion and Enscape rendering and 360 view – we have that and students use that for free
 - White Board for Teams (was mentioned it's similar to Miro with less options)
 - Plan grid
 - WebX
 - Concept Board
 - Licensing on any software we use
 - Rabbit plug-in for FrameCAD
 - Continue purchasing materials for the paths
 - Continue purchasing technology we have for robotics and C&C machines
 - Hardware purchases such as:
 - LiDar scanning support items such as iPADs and drones
 - upgrade and servicing of equipment
 - Concrete pads
 - Money for demolitions and regrading
 - Rollover of the last things on ARRs that we didn't get last year
 - Equipment to make a safe environment: PPEs, cleaners, etc.
 - Air change equipment/HEPA equipment

- Other recommendations for program improvement:
 - Make sure students know how to use Blue Beam.
 - Make sure students have knowledge and comfort on the biggest platforms used in presentations: WebX, Zoom, Team.
 - Have a class in digital workflows.
 - Have protocols for working in the makerspace during COVID such as who can use it and how many can be there at a time.
 - Ron Kransnitz spoke of the following Huntington Beach Library's Makerspace protocols:
 - 3 people max inside the space at a time
 - Only volunteers and staff
 - Can't use the equipment right now
 - People wanting to use the makerspace and gain expertise can only do so remotely
 - Make OCC Makerspace protocols and have in-class lab time during COVID-19. Architecture is a very hands-on program that needs to be taught in person.

8. Closing Remarks

- If you are sitting in your home and you forgot to say anything, please email us.