ARCHITECTURE, INDUSTRIAL DESIGN & MANUFACTURING TECHNOLOGY
ARCH / ECT ADVISORY COMMITTEE
AGENDA
FRIDAY, MARCH 4, 2022
10:00 AM – 1:00 PM

Participants

Advisors		Faculty	
x	Matt Breyer – Tilden Coil – (Builders)	x	Nadim Itani – Faculty
	Marisol Chinchilla – March Studio (Architects)	x	Hiro Kuroki – Faculty
x	Jirair Garabedian – Dahlin Group (Architects)		Iggy Sardinas - Faculty
x	Gary Gidcumb – MtSAC Facilities (Builders/Architects)		
x	William Lambert – MtSAC Foundation, Exec. Dir. Development	**Administration**	
x	Henry Moseley – Interstitial Studio (Architects)	x	Toni Franco - Administrative Specialist
	Marta Perlas – Mythograph Inc (Architects)		
	George Proctor – CalPoly Pomona (Arch. Dept. Chair)		
x	Ammar Sarsam – HPI (Architects)		
	Evan Troxel – Tect (Architects)		

Nadim Itani called the meeting to order at 10 am, 3/4//2022

1. **Introductions**
   a. Discussions
      i. Welcome and Introductions
      ii. Purpose of Advisory
         1. Fulfill Federal, State and Chancellor's requirements.
         2. Assist departments and college in evaluating effectiveness of program and preparedness of graduates and transfers.
         3. Recommend changes to curriculum, facilities, and equipment.
         4. Assist the program in identifying work experience opportunities.

2. **Alumni input Report**
   a. Discussions
      i. In the past students who transferred from MtSAC to Cal Poly Pomona, New School of Architecture & Design, and UC Berkeley have come back during breaks between semesters to visit.   They are reporting positive feedback. But since the Spring of 2020 this has decreased greatly due to COVID circumstances.

         But, of a handful of students have been in contact by joining reviews and keeping us updated on how Universities had handeled education in 2021.

         It was encouraging to see how much transfer students have matured after observing them on invited jury panels – Thank you CPP for further nurturing our past students!

      ii. In the past, students commented that they feel well-prepared to succeed at the university level programs.   Some have reported that the workload demands are not as high as they have been told while they were students at MtSAC.

         Design and digital media classes have prepped them to hit the ground running compared to other students, but would like to have had more instructions on Photoshop post production methods. Hiro and Nadim will try to incorporate more software programs/tools.   In spite of COVID circumstances, we suspect and hope that students are still well prepared for transfer. A number have applied for admission to the 2021-2022 academic term at universities.   As for the 2020-21 school year many have been able to transfer to Universities to major in Architecture, Landscape Architecture, and Urban Design.

3. **Program Improvement Report**
   a. Discussions
      i. In the Fall 2021 the MtSAC campus was re opened for in-person instruction.
         In Spring 2020 and Fall 2020 the campus was closed and courses had moved to a distance learning format online.

      ii. Facilities - The State has approved a bond for additional facilities. The Tech & Health Division is currently in the 50% CD design phase with HPI Architects for new facilities which will include all the Division's departments under one roof.

      iii. (arch101 with Arch121 + arch102 with 122) Fall 2021 began with low enrollment and had attrition in the 101/121 sequence by the end of the semester.
         This Semester Spring 2022 we actually had to open up **three** sections of 101/121 beginner courses in the those classes are full.

However, Post 2020 COVID students who had their intro to architecture on-line have shown some lack of skill, such as hands-on application of concepts; physical model building, sketching, presentation, etc.   Faculty have also noticed some student complacency in the in-person sessions born from "on-line" precedence.
There is a misconception among students that information can only be dessemenated "on-line", so whiteboard and other modes of instructions are at times neglected.

iv. The 2nd level of the transfer track (Arch201 with Arch221) and 3rd level transfer track (Arch202 with Arch 222) have similar benefits and downfall.

v. The decline in enrollment in Fall 2021 may have been related to perpetually changing COVID protocols, testing, and vaccination requirements. Such factors had sewn confusion among students.

vi. Design Village (DV) -
This academic year, 2021-2022, our participation is still to be determined.

vii. Articulation – With the help of our Articulation Officer/Counselor, Jamaika Fowler the Architecture Department received articulation with Cal Poly San Luis Obispo.

viii. CPP / MtSAC Collaborative - Arch 280 (Structural Design 1) will continue to be offer over the summers to accommodate our students and CPP students who may need it for remedial purposes.

ix. Degrees & Certificates – in the 2020-2021 academic year, ARCH/ECT department has awarded a total of **11** degrees and 42 certificates as follows:
Degrees:
1. Arch Design AS degree_____(4) Four   last year = 3
2. Arch Technology AS degree_____(1) One   last year = 1
3. Engineering Construction Tech AS degree___(6) Six   last year = 0

Certificates:
1. Arch Foundation skills_____ (0) Zero   last year = 13
2. Arch Design Concentration I_____(13) Thirteen last year = 17
3. Arch Design Concentration II_____(16) sixteen   last year = 10
4. Arch Design Concentration III_____(12) Seven   last year = 7
5. Arch Technology Concentration I_____(1) One   last year = 0

6. Arch Technology Concentration II_____(0) Zero last year = 0
7. Engr Construction Technology I_____(0) Zero last year = 3
8. Engr Construction Technology II_____(1) Three last year = 7
9. Construction Inspection_____(0) Zero last year = 1

   a. Increase Earned Certificates – This is a recurring item; In class sessions, students are being asked to apply for certificates and faculty are assisting in navigating the qualifications and application process. We are making this process easier for students.

x. Mt. SAC has transferred 13 students to design schools from the class of 2021. We received news that a former student who transferred to UCLA is now attending Harvard GSD.

xi. ECT - The Division had approved a search for a full time faculty member to fit the ECT program. Due to lack of funding the Instruction Office declined the hire of new faculty for the entire College.

xii. The current pathways in Arch Tech & ECT require more alignment with the architecture and construction industry. The integration of a Construction Management curriculum has been under discussion.

xiii. Adjuncts – We continue to search for adjunct faculty. We recently added two adjuncts to our pool.

xiv. Purchase – Last year we were awarded a Laser cutter through our Perkins Grant application. This Semester we will be installing it to supplement our existing machines for increased student access. Also purchased and now installed are dual monitors for our computer labs. All instruction labs now have dual monitors per station.

4. Curriculum Review and Revision

   a. Discussion

      i. Modifications - The ARCH and ECT programs faculty Request from the Advisory to Recommend allowing modification of all course curriculum elements that include but are not limited to items such as course name and description, field trip requirements, unit count, outline(s)/content, measurable objectives, sample exercises, discipline coding, addition/deletion of "co" and "pre" requisites as well as the modification of degrees, certificates, and programs as the department deems necessary in the interest of the program and its students.

         1. Classes

           a. Arch101, Arch102, Arch121, Arch122, Arch141, Arch142, Arch145, Arch146, Arch147, Arch180, Arch201, Arch202, Arch221, Arch222, Arch247, Arch250, Arch251, Arch280, Arch290

           b. ECT16, ECT 17, ECT26, ECT67, ECT70, ECT71 ETC87

         2. Degrees

           a. Arch Design AS degree

           b. Arch Technology AS degree

           c. Engineering Construction Tech AS degree

         3. Certificates:

           b. Arch Foundation skills

           c. Arch Design Concentration I

           d. Arch Design Concentration II

           e. Arch Design Concentration III

           f. Arch Technology Concentration I

           g. Arch Technology Concentration II

           h. Engr Construction Technology I

           i. Engr Construction Technology II

           j. Construction Inspection

      ii. Distance Learning - ARCH/ECT has placed applications to qualify our courses to be taught in a distance learning format in addition to the current in-person setting. We are waiting to receive approvals and comments from Curriculum.

         The Department is in discussion to offer lecture classes in a Distance Learning / hybrid format. This will require some Adjunct and Fulltime faculty to enroll in MtSAC's SPOT certification course (Skills & Pedagogy for online Learning).

iii. General Ed. - Architecture is still proposing to convert existing courses into General Education courses, and develop new General Education courses into the curriculum such as:
1. ARCH 100: Culture of Design and Making
2. ARCH 10: Introduction to Design thinking (High school articulation)
3. ARCH 252: Modern and Contemporary Architecture Theory and History
4. ARCH 253: Introduction to contemporary Architecture

iv. Landscape & Planning - We are currently transferring students who are interested in Landscape Architecture and Urban Planning/Design as a major. We are incorporating landscape and urban design into our architectural design classes at the moment. We feel that we have an obligation to develop programs, certificate offerings and transfer articulation agreements for these students with the intent to transfer with this major in mind. We had commenced conversations with Planning (URP) at CPP last year, and look to pen in criteria into our courses which they would then consider courses transferable to their program.

v. Construction Management – The Department is in conversation with regards to modifying the existing ECT program with the intention of gearing it towards a more clearly defined construction management focus. We believe that clarifying the ECT nomenclature with the more conventional and accessible term "Construction Management" (CM) and adjusting the courses to better align with current industry, will provide a wider door for students interested in the discipline. The intention is to consider then identify internship opportunities for those enrolled in the program.

b. Outcome / Actions needed:
i. Henry Moseley made a motion to approve the Curriculum Revisions, and Jirair Garabedian seconded it. All in favor.

5. **Documentation of Program Needs**
a. MtSAC made an announcement for the need of the following tools, supplies and equipment to develop the program.
b. Current program needs:
i. Enclosed shop facilities
ii. 19 computer stations with high performance video CGI cards
iii. Laptop computers
iv. Millermatic 211 Portable mig welder with cart and gas cylinders

v. MIG welding alternate gas cylinders and safety equipment

vi. TIG welder

vii. Fabrication / Welding jig tables

viii. Wood working/carpentry tools, equipment and machinery

ix. Panel Saw

x. Metal working tools equipment and machinery

xi. Metal bend, shear, corner brake

xii. Tubing bender

xiii. Spray Booth

xiv. Fabrication tools, equipment and machinery to support collaboration activities with Cal Poly Pomona and Design Village competition

xv. CNC plasma cutter

xvi. Water jet cutter

xvii. Video camera and related equipment

xviii. Gantry system to hold camera and be movable with instructor's demonstrations

xix. Large monitor above demonstrating space (like in Culinary arts) to focus on detail while demonstrating instructions

xx. Video editing software and computer

xxi. Desktop 3d printers with low cost consumables

xxii. Architectural, construction, CAM and digital design software plus additional seats of existing software

xxiii. Rendering software

xxiv. Project management software; MS Project, Bluebeam, Primavera by Oracle, Procore (CM platform), CMiC

xxv. BIM 360 (architecture & construction coordination cloud based software)

xxvi. Sketchup Pro for Higher Education

xxvii. Measuring/ Automation testing and sensing components/equipment.

xxviii. Environmental chambers

xxix. Shake table

xxx. Destructive testing equipment

xxxi. Lockable lockers for student project/tools

xxxii. Technical and design related books for recourse center.

xxxiii. Cantilever racks for (steel and wood) materials

xxxiv. Video server for offsite access

xxxv. Electronic white boards

xxxvi. Electric golf cart as the program is spread over so many locations

xxxvii. Forklift

xxxviii. shop furniture

       xxxix. Small manual and powered shop hand tools and appliances
          xl. Laser cutters (large format and midsize)
        xli. Smoke Vacuum for laser cutter
      xlii. 3D scanning technology – Reality capture technology including photogrammetry and LiDAR scanning devices.

c. Staffing and student assistants and tutors
     i. Tool keeper and shop assistant similar to IDE MFG
    ii. Computer lab and plotting / laser cutting attendan familiar with program software.
   iii. Student assistants (3 student tutors @15.50 hr./wk.)
   iv. High level embedded mentor with a terminal degree.

d. Professional Development funding
      i. AU conference
     ii. AIA Conference
    iii. ACADIA Conference
    iv. Sustainability Conference
     v. Green Design Conference
    vi. Maker Fair
   vii. Student competition funds (Design Village)
  viii. Training and conference attendance for the computer programs in department.
         1. Examples include, Autodesk suite, McNeel/Rhino 6/Grasshopper, Maxwell, Vray, Adobe design suite, Autodesys suite, Sketchup, LinkedinLearning.com (formerly linda.com)

e. Outcome / Actions needed
     i. Henry Moseley made a Motion to approve the itemized program needs listed and Jirair Garabedian seconded it. All in favor.

6. **Advisory Input**
  a. Discussion
     There was discussion regarding AutoCad v. BIM, etc. and whether it is still used in the industry. Overall there was agreement that although AutoCad is the lesser used compared to BIM, Revit, Sketchup, it is still viewed as valuable and encouraged for students to have AutoCad knowledge as part of their skillset.

     Constructon administration was discussed and viewed as an important area in an arch office. Graduates should know building codes and general construction types and

fundamentals of building science. Employable skills include construction administration support, documentation, schedules, cost estimates.

7. **Approval of minutes**
    a. Gary Gidcumb made a motion to approve the meeting Minutes, and Ammar Sarsam seconded it. All in favor.

8. **Meeting Adjourned at 1:00 p.m.**