

# Curriculum Vitae - JAMES E. MITCHELL, AIA

## 1. Education:

<b>M. Arch.</b>	Architecture	University of Pennsylvania	1973	(terminal Degree)
<b>M.S.</b>	Fluid Mechanics	Harvard University	1967	
<b>B.A.</b>	Applied Physics	Harvard University	1964	(first in engineering program, cum laude)

## 2. Full Time Experience Record:

### a) Professor - Department of Civil, Architectural and Environmental Engineering, Drexel University 9/2014 – Present

Teach Architectural Engineering Design, Senior Design and other departmental, college and university courses. Direct and develop Architectural Engineering program. Pursue research interests in Computer-Mediated education as well as issues related to faculty incentives, with particular emphasis on educational issues. Led effort to establish MS and PhD programs in Architectural Engineering.

### a) Associate Professor - Department of Civil, Architectural and Environmental Engineering, Drexel University 9/88 – 9/2014

Teach Architectural Engineering Design, Senior Design and other departmental, college and university courses. Direct and develop Architectural Engineering program. Pursue research interests in Computer-Mediated communication as well as issues related to faculty incentives, with particular emphasis on educational issues.

### b) Founder and Co-Director of Faculty Development Center 9/2000-2003 (Part Time)

Created the Drexel University Faculty Development Center (now Drexel Center for Academic Excellence), devoted to improving the teaching and learning capabilities for all faculty. Developed initial programs, staffing and publications program

### c) Associate Dean - College of Engineering - Drexel University - 7/92 - 12/95.

#### Responsible for all college undergraduate affairs including:

college recruitment, academic standing, honors, student societies, curriculum. Particular activities involved responsibility for the internationally recognized “Drexel Engineering Curriculum” formerly known as “Enhanced Educational Experience for Engineers” (E4) as it expanded from a pilot program to the entire freshman and sophomore classes. Also served (3/93-8/95) as the “Institutional Activities Leader” for Drexel’s portion of the NSF funded “Gateway Coalition”, leading to curriculum reform for the entire College of Engineering curriculum. Responsible for all “Senior Design” activities in the College of Engineering.

#### Institutionalized The Drexel Engineering Curriculum.

Directed the expansion of the NSF-Funded E4 program from an experiment to the curriculum for all students in the college. Developed analysis of effects of expansion to convince both administration and Faculty Senate of the

logic and appropriateness of the expansion as well as the necessity of faculty and monetary resources. Organized and conducted the approval process with those groups. Created a joint curriculum committee with membership from two colleges to refine and adopt the curriculum, in the process addressing long-standing enmities between departments. Developed structures for addressing needs of honors students, underprepared students and transfer students. Presented the expansion program both to visitors and to professional societies. Taught in the program in two capacities.

### **Served as Drexel's Institutional Activities Leader for Gateway Engineering Coalition.**

Organized and coordinated Drexel faculty's efforts in upper-level curriculum development, human potential development, and educational technologies to ensure that they enhanced the new Drexel Engineering Curriculum as well as served the needs of the other nine universities in the coalition. Managed the \$500,000 annual Drexel portion of the coalition budget. Served on coalition panels addressing issues of coordination and evaluation as well as overall policy. Represented the coalition at NSF evaluation conference.

### **Revised Senior Design Format and Procedures.**

Led college reevaluation of the year-long course taken by all seniors (except Chemical Engineers). Prepared new Handbook guiding the process. Reformulated the spring final presentation to focus on outstanding projects. Raised award money. Instituted electronic procedures for collecting project data, abstracts and grades for 120 projects yearly.

### **Increased Office Efficiency.**

Adopted and developed computer-based methods of scheduling, transfer credit evaluation, evaluation of students in academic difficulty while reemphasizing priority of student service.

### **d) Interim Department Head, Department of Civil & Architectural Engineering - Drexel University - July, 1991 to June 1992**

As department head managed all departmental budget, administrative and curricular matters. Presided over tenure of one Associate Professor and a successful search for a new department head. Led faculty to adoption of a uniform class evaluation process. Expanded departmental computer network. Promoted use of electronic communication and collaboration within the department. Prepared successful proposal to NSF for \$4,000,000 renovation of departmental laboratories.

### **e) Associate Professor (Tenured as of 1990) and Director of the Architectural Engineering Program - Drexel University - September, 1988 to June 1992, 1998 to Present**

As Director of the Architectural Engineering Program, which grew from approximately 250 students at appointment to over four hundred, led development in several key areas, including greatly expanded use of the microcomputer in teaching, curriculum refinement and expansion, faculty recruitment, facilities development, review and revision of all program-taught courses, inception of new courses, cultivation of professional community for both educational and financial resources, and promulgation of Drexel's AE leadership role to academic and professional organizations. As Associate Professor, was first to teach and/or coordinate multiple AE courses, taught for the Architecture Department, served as advisor to both student organizations and student

project groups, and participated in various program, department, college and university committees, integrating Architectural Engineering fully into the Drexel community.

## **Developed Computer Aided Design (CAD)**

within the AE program such that Drexel could claim leadership in the area. Studio 5 and Studio 6 courses incorporated such software as ArchiCad (a three-dimensional program for building designers), Versacad (an industry-standard drafting program), Excel, ClarisCad and MacDraw II, and helped to set the standard for the theoretical and practical application of CAD in AE education. Consulted to Drexel Architecture & Interior Design program to enhance their CAD capabilities and taught several Architecture CAD courses. Worked closely with Math & Computer Science and Physics & Atmospheric Sciences departments to advance both CAD and general computer use within university community. Revised E031, an AE-required Freshman elective, to emphasize drawing with the aid of microcomputers. Planned and designed new AE CAD lab, including documenting the experience for publication so it may be used as a model for other labs both within and outside Drexel. Conducted demonstrations of the facility for Drexel faculty, emphasizing its utility and relevance to a wide variety of engineering disciplines. Coordinated independent study course on using the CAD lab, to be offered at AE Seniors' requests. Wrote paper chronicling lab's planning and selection process, at the invitation of the American Society of Engineering Educators, for presentation at June, 1990 conference.

## **Reviewed and refined AE Undergraduate Curriculum**

especially courses offered directly by AE program, with particular attention to requirements for ABET accreditation (received on first application). Added E029 (Introduction to AE Drawing) to the curriculum. Developed and taught two-course Building Systems Integration sequence. Coordinated initial offering of AE Construction Project Management & Finance. Revised fifth year of curriculum to allow seniors more options, and defined, with C&AE Department, Senior Design sequence for AE students.

Recently (2011-12) worked closely with CAEE Advisory Council, AE Curriculum Committee and several Drexel departments to develop proposal for revised AE curriculum, adding a *Digital Building* undergraduate concentration to the existing Mechanical and Structural concentrations. This has been approved by the department and coordinating departments and is awaiting review by the CoE curriculum committee.

## **Developing AE Masters and Doctoral Programs**

Currently (2012) formed AE faculty group to define and develop Master's level AE degree, and a Doctoral level degree - this development is still in process (2012) and has not yet been fully approved.

## **Taught and/or coordinated**

all sections of Studio 5 and Studio 6; developed and taught Building Systems Integration. Developed and taught Architectural Engineering Design I&II. Co-Developed and taught CAEE-201, CAEE-210 – the department's introductory courses. Taught CAD and independent study design courses for the Architecture Department. Served as advisor to all AE students, and as Senior Design Principal or Co-Advisor for multiple project groups each year. Received consistently high anonymous student evaluations during both adjunct and full-time professorial tenures. Senior Design groups have won the college-wide competition multiple times. Senior Design groups have won and placed in all Architectural Engineering Institute National competitions so far held (four as of 2012).

## **Formed Drexel University Architectural Engineering Advisory Council**

to receive industry guidance in program and curriculum development, as well as to promote Drexel's leadership role in the professional community. Strengthened ties between Drexel and several prominent area firms and

academic institutions, and cultivated several new connections. (Council was initially chaired by Mr. Fred Lindquist, Chairman and CEO of The Kling-Lindquist Partnership, Inc.)

### **Created a quarterly newsletter**

to inform students and other interested individuals about program developments, and also to publicize the program to Drexel and outside communities. Organized Drexel student chapter of National Society of Architectural Engineers (NSAE). NSAE-sponsored lecture series, field trips, tutoring program, and social events serve to promote a sense of identity for AE students, and to involve the community in the program. Named Chair of Delaware Valley NSAE Publications Committee, further facilitating outside awareness of Drexel's AE program. Elected Secretary of the AE Division of American Society of Engineering Educators. Presented Drexel AE program to the Consulting Engineers Council of Pennsylvania on subject of "Architectural Engineering and the Future of the Profession."

### **Performed Architectural and AE services**

for AE program and various other Drexel entities. Defined a master plan for AE space needs over five years. Defined, located, programmed, and reviewed 2,500 SF renovation in Alumni Engineering Labs (space includes drawing classroom, computer room, student lounge, NSAE office and adjunct faculty office) and 900 SF renovation in Korman building for AE CAD lab. Specified and reviewed development of 3,000 SF CAD located in C.A.T. building, and also consulted to university administrators regarding furniture needs for that building. Served as faculty representative on six-person Facilities Renewal Task Force to define the scope and costs of the University's deferred maintenance problem. Consulted to C&AE department on design of new administrative offices.

### **Administered the AE program,**

including student advising, recruitment and supervision of AE faculty (full-time tenure track and adjunct) and administrative staff, budget development, formation and chairmanship of AE Curriculum Committee, and coordination with other departments. Supervised scheduling, record keeping, purchasing, and equipment maintenance. Worked closely with C&AE Department to coordinate AE and CE programs, including increasing awareness of need for design within the Civil Engineering curriculum, planning for effects of increased AE enrollment, and networking department's computers.

### **f) Founding Partner - Jordan, Mitchell, Inc. 1981-1988**

Principal in Architectural, Interior Design and Planning firm. Responsible for:

#### **Computer applications development including:**

- **Computer Aided Design.** Adoption, development and maintenance of AutoCAD for 100% of the firm's technical documentation. This included creation of a unique "menu", programming in Autolisp, as well as creating and maintaining standards.
- **Database Applications.** Adoption and use of relational database for multiple functions within the firm including Facilities Management system directly linked to Autocad.
- **Project Management** and Critical Path Scheduling.
- **Word processing, spreadsheets** and all business aspects of the firm.

#### **Project Management for many projects including:**

- **John Hancock Health Plan** - 3550 Market Street - Medical Facilities and Administrative headquarters.

- **Meritor Corporation** - Multiple renovations to 1234 Market street: Branch Bank Design: Facilities Management via CAD
- **Thomas Jefferson University** - Edison Building Renovations
- **Columbia Medical Plan** - New Medical Center and Administrative Headquarters
- **Fidelity Bank** - Creation and administration of CAD-based facilities management program: Renovations to 1700 Market Street: Central computer facilities documentation and expansion planning.

## **Financial Management**

for the firm including adoption and maintenance of comprehensive computer-based accounting system.

## **Marketing**

for the firm (with Partner Joe Jordan) including initial contacts, proposal writing, interviews and contracts.

## **Technical Specifications**

for projects, including adoption of "Masterspec" on computer, defining standards, writing individual specifications, and reviewing work of others for completeness and coordination.

## **Construction Administration**

for many projects including those mentioned above.

## **g) Founder & Principal - James E. Mitchell, A.I.A. 1979-81.**

Founded Architecture firm providing to Philadelphia area businesses. Was responsible for all aspects of the firm including Design, Documentation, Construction Administration, and Marketing. Responsibilities and achievements:

### **Projects:**

- **Center for the Study of Adult Development** - Renovation of space for medical counseling service.
- **Windthorst-Warsaw Federal Savings** - Building renovation to modernize image.
- **Solar addition** design
- **Springfield School District** - Energy Audit.
- **Penn Center Inn** - Consulting Architect.

### **Computer Usage.**

Introduced and used one of the first Micro-Computers in an Architectural firm in the Delaware Valley area.

## **h) Associate, 1978-79; Staff Architect 1976 - 79, 1974-75, 1972 - Robert D. Lynn Associates, Architects and Planners.**

Rose from summer assistant to Associate in this firm which specializes in Medical Facilities.

Responsibilities (usually associated with and supervised by the firm's principal) included:

- Architectural Programming for multiple projects
- Master Planning

- Plan Development
- Drafting
- Specifications writing
- Construction Administration
- Marketing

**Projects worked on include:**

- Haverford Community Hospital
- Albert Einstein Hospital - Daroff Division
- Quakertown Community Hospital
- St. Mary's Hospital - Philadelphia
- Kensington Community Hospital

**i) Associate Director - Educational Futures Inc., 1975-76.**

Worked with the Director to manage and develop programs for this organization devoted to increasing awareness of the "Built Environment". The organization's major activity during the year was initiation of a National program entitled "Architects-In-Schools" for the National Endowment for the Arts (NEA). In that role responsibilities with the director included:

- Program Administration for 34 architect residencies in 21 states.
- Handbook Development of resource material for Architects in residence
- Reporting on program status to NEA.
- Preparing and Running Training Workshops for all program participants.
- Site Visits throughout the US to residence sites.

**j) Staff Architect - Robert Maxwell Gorman, AIA. 1973 - 74.**

Assisted on design of Headquarters building for Shared Medical Systems.

**k) Biomedical Engineer - Biomedical Engineering Branch, Division of Research Services, National Institutes of Health. 1967 - 69. (USPHS officer)**

Worked on a variety of biomedical instrumentation projects including:

- Portable incubator for Whooping-Crane eggs
- Sensory stimulator for Neo-Natal testing
- Ultra high-speed centrifuge for small samples

**3. Other Experience Record:**

- a) Adjunct Assistant Professor - Drexel University, Department of Architecture - 1986-1988. Taught and revised E031 for Architectural Engineering program. Created and taught 19440 and 19441 (Computer Applications in Architecture & Planning) for Department of Architecture.

- b) Juror - Drexel University Department of Architecture. 1982 - present. Reviewed and evaluated student work at various levels, primarily graduating seniors.
- c) Instructor - Spring Garden College. 1981. Created and taught solar energy course for third-year students.
- d) Invited Speaker - A/E Systems '87. 1987. File Management in CADD Systems.
- e) Juror - Department of Architecture, Temple University. 1986-1989. Intermediate and final evaluation of student projects using computers in Architectural design.
- f) Speaker - A. I. A. National Computers in Architecture Committee. March, 1985 "Autocad - A Start." Presented day-by-day narration on the surprises inherent in using CADD in small offices. Produced on "The Source" telecommunications system.
- g) Speaker and Organizer - Computer Seminar, Philadelphia A.I.A. . 1985. Presented the advantages and disadvantages of using computers in practice, with advice on how to start and how to choose software and hardware.
- h) Lecture - Computers for Architects, Drexel University. 1984. Speaker in practice management class for Architecture program on use of computers in Architectural practice
- i) Speaker and Organizer - Computer Seminar, Philadelphia AIA . 1984. Presented the advantages and disadvantages of using computers in practice, with advice on how to start and how to choose software and hardware.
- j) Invited Speaker - A/E Systems '84. 1984. Microcomputers for the Small Office.
- k) Invited Speaker - Panel on Computers in Architecture, Temple University. 1983
- l) Invited Speaker - A.I.A. National Convention. 1983. Advanced Microcomputers for Architects.
- m) Juror - Drexel University. 1982. Solar Energy Design.
- n) Invited Speaker - Computers for Architects Seminar, Temple University. 1982.
- o) Invited Speaker - Computers for the Small Office Seminar, Maryland Society of Architects. 1982.
- p) Invited Speaker - A.I.A. National Convention. 1982. Computers for the Small Office.
- q) Lecture - Energy Audits, Drexel University. 1981.
- r) Invited Speaker - Energy Audits for Architects, Philadelphia A.I.A.. 1980.
- s) Invited Speaker - Computer Aided Design Seminar, Philadelphia A.I.A.. 1979.

## 4. Research Projects

### External Research

#### a. Using Spatial Visualization Training to Enhance Retention in Engineering

<b>Granting Agency</b>	Engage
<b>Funding</b>	\$5,000
<b>Term</b>	1 year
<b>Principal Investigator</b>	Dr. Kevin Scoles – College of Engineering
<b>Role</b>	Co-Principal Investigator
<b>Project Start Date</b>	June, 2012
<b>Proposal #</b>	1583

#### b. A National View of Architectural Engineering Design Teaching 6/2008-9/2009

A sabbatical year was devoted to studying all (17) accredited Architectural Engineering programs throughout the United States. Each program was visited for one or two days with intensive interviews of faculty teaching Architectural Engineers (132 total). Faculty from all the schools took an extensive (18pp) online survey (105 respondents 70%

response rate) which addressed what and how they were teaching as well as issues that they believed were important to the profession.

The results of this effort were disseminated and implemented as follows:

- Paper on the survey at the 2009 ASEE conference in Austin Texas
- Online publication of the observations at each school as well as the results of the survey via a <http://aedesigndu.blogspot.com/>.
- Advocacy addressing the issues defined in the study in the Academic Council of the Architectural Engineering Institute.
- Implementation of changes both in my own courses and in Drexel's AE curriculum.

### c. Experiment to Enhance Student Outcomes 11/98-10/02

Drexel was awarded a major, 3-year grant by the GE Fund. Its purpose was to test the hypothesis that if faculty engage in self-selected activities intended to improve teaching there will be measurable improvements in student learning.

<b>Granting Agency</b>	GE Fund
<b>Funding</b>	\$150,000/year external + internal matching funds
<b>Term</b>	3 years
<b>Principal Investigators</b>	Prof. James E. Mitchell – College of Engineering Dr. Richard E. Woodring – College of Engineering Dr. Valarie M. Arms – College of Arts & Sciences
<b>Assessment Partner</b>	NACME – <i>National Action Council for Minorities in Engineering</i>
<b>Contact Information</b>	James E. Mitchell - (215) 895-1374 <a href="mailto:Outcomes.Experiment@Drexel.edu">Outcomes.Experiment@Drexel.edu</a>
<b>Project Start Date</b>	1 December 1998
<b>First Experimental Period</b>	Spring Term 1999 (AY98-3)
<b>Project Completion</b>	2003

## 5. Publication & Conference Record:

### Book Chapters

- a) Practical engineering design - Taylor & Francis - Boca Raton, FL - - 2005 – 2 Invited Chapters on Teamwork and Project Management.
- b) Viable Utopian Ideas: Shaping a Better World – M.E. Sharpe, - 2003 – Shostak, Arthur (Ed.) -

### Reports

- a) Outcomes Experiment Annual Report for 11/02-10/03 and Experiment Wrap-Up - Outcomes Experiment - Drexel University - Philadelphia - Web Site - 2003
- b) University Seminar – The Drexel College of Engineering Experience – 9/98 – For Gateway Engineering Coalition.
- c) Designing a Design Course - Issues & Models – 9/97 – For Gateway Engineering Coalition.

### Conference Publications

- a) Mitchell, J.E., Capstone Design Experience at Drexel – *Structural Engineering Congress*, Pittsburgh, PA 5/2013



- b) Estes, Allen, R. Klinger, C. Waters, J. Zachar, R. Yunk, and J. E. Mitchell, "Accreditation---The New Architectural Engineering Program Criteria," in *ASCE Conference Proceedings*, 2011.
- c) Mitchell, J. E. *Defining Architectural Engineering Design*. American Society for Engineering Education (ASEE), Austin, TX, ASEE. - 2009
- d) Weggel, J. R., J. E. Mitchell, et al. Two Introductory Civil, Architectural & Environmental Engineering Courses. - 2008
- e) Time Professors Spend Improving their Teaching - IEEE - Savannah, GA - - 2004
- f) Variation From A Core – Drexel University’s Experience Enhancing and Customizing FYE Programs to the Needs of Individual Academic Units – FYE Conference, Columbia, SC 2/22/99.
- g) Using the World Wide Web in an Architectural Engineering Design Course - ASCE Conference Paper 10/98
- h) Using The Web in Teaching – Conference on Educational Uses of Technology, Drexel University 8/98
- i) Mac to PC Conversion - Notes for IRT Seminar /98.
- j) The Internet and College Life - Talk for Parents and Family Weekend 11/97
- k) Tomorrow's Workday - Speculations on Technology's Effects the Work Patterns - Talk for Drexel University's Center for Employment Futures 10/21/97
- l) Creating Faculty Web Pages - Presentation for Drexel Office of Computing Services 10/97
- m) Locating, Using, and Evaluating Internet Information Sources: A Classroom Experience - Presentation for the Commission on Higher Education Symposium - San Juan, Puerto Rico 10/10/97
- n) Freshman Design - Workshop Presentation 6/11/97
- o) Using the Web in Teaching - Drexel OCS Seminar 4/30/97
- p) Using the World Wide Web in an Architectural Engineering Design Course - ASEE Paper 6/97
- q) Drexel's Computing Future - A Committee-Person's View 2/18/97
- r) Mitchell, James E. "Institutionalization of E4". IEEE Frontiers in Education Conference, San Jose, November, 1994.
- s) Mitchell, James E and Winkel, Brian. "A Dialogue Between Two Team Players from Two Curricular Innovations, Drexel University - E4 and Rose-Hulman Institute of Technology - IFYCSEM". Panel at ASEE Annual Conference, Edmonton, June 1994.
- t) Mitchell, James E. "Evaluation Of The E4 Program - Notes On The Process" - NSF Coalition Evaluators Workshop, October, 1993
- u) Mitchell, James E. and Robert B. Warden. "Selecting and Planning Evaluation of a Heterogeneous AE CAD Lab." American Society of Engineering Education Conference, June, 1990.
- v) Abdou, Ossama A. and James E. Mitchell. "Understanding Industrialized Building - Goals for an Architectural Engineering Curriculum". American Society of Engineering Education Conference, June, 1990.
- w) Mitchell, James E. and Ilene Appel. "Keeping Students Involved and Informed: An AE Communication Program." American Society of Engineering Education Conference, June, 1990.

## Online (Blog) Publications

- a. CAEE-201 Spring 2011-12 James E. Mitchell
- b. AE-390 Spring 2011-12 James E. Mitchell
- c. Bridge Design ENGR-103-20,35 Spring 2011-12, James E. Mitchell
- d. AE-391 Winter 2011-12 James E. Mitchell
- e. Intelligent Building AE510 Winter AY2011-12 James E. Mitchell.
- f. CAEE-201 Spring 2010-11, James E. Mitchell
- g. AE-390 Spring 2010-11 James E. Mitchell
- h. AE-391 Winter 2010-11, James E. Mitchell
- i. Intelligent Building AE510 AY2010-2 James E. Mitchell.
- j. CAEE-201 Fall 2010-11, James E. Mitchell
- k. Intelligent Building AE510 AY2009-2, James E. Mitchell
- l. Community Building Blog for Faculty Joining Drexel University in Fall 2009 - 27 entries. Drexel New Faculty Community 2009 J. E. Mitchell. Philadelphia, Drexel University. 2009.2009
- m. AE Design Teaching in the USA - Blog On Investigation of AE Design Teaching - Record of 46 entries over two years. AE Design Teaching in the USA, Mitchell, James E.2009

## Magazine Articles

- a) Engineering Education, Technology, and Change - Syllabus Magazine - March 1996

## Book Reviews

- a) Mitchell, James E. AIA Journal. Book review of *Solar Heating Systems*, Gordon Tully.
- b) Mitchell, James E. AIA Journal. Book review of *Versus*, Stanley Tigerman.
- c) Mitchell, James E. AIA Journal. Book review of *Origins of Form*, Christopher Williams.
- d) Mitchell, James E. AIA Journal. Book review of *Architectural Draftsman's Reference Handbook*, Jack Lewis.

## Articles in Which Quoted

- a) Marketing for the Small Firm. (Jordan-Mitchell, Inc. featured). Whitney Design Library. 1984.
- b) "Streamlined decision making can ease selection of HMO site." Modern Health Care, January 31, 1986. James E. Mitchell featured.
- c) "Time for CADD?" Buildings Design Journal, 1985. James E. Mitchell featured.
- d) Round Table: "Computer use in the small Architectural firm." Architectural Record, May, 1984. James E. Mitchell featured.
- e) "Talking By Computer is a New Way of Life." U.S. News and World Reports, August 27, 1984. James E. Mitchell Featured.

## 6. Teaching

### a) Courses originated and taught:

- a) AE-510 Intelligent Buildings (with Reddy) – (Now teach alone)
- b) AE-790 Assessing Renewable Energy (with Reddy & Cairncross)
- c) AE-390 Architectural Engineering Design-I
- d) AE-391 Architectural Engineering Design-II
- e) CAEE-201 Introduction to Infrastructure (with Weggel)
- f) CAEE-210 Measurements I (with Weggel)
- g) AE210 Introduction to Architectural Engineering
- h) Hon 202 Arts & the Internet
- i) Hon 202 Implications Of The Internet
- j) T&LI Contemporary Instructional Tools - The Web +
- k) E280 Studio 5 - Junior Design studio focusing on CAD and Engineering Integration
- l) E280 Studio 6 - Junior Design studio focusing on CAD and Engineering Integration
- m) E280 Building Systems Integration 1 - Senior Course
- n) E280 Building Systems Integration 2 - Senior Course
- o) E280 Independent Study in Computer Aided Design - Senior Course
- p) H135 Independent Study in Advanced Studio Art and Design - For Interior Design
- q) 19440 Computer Applications in Architecture & Planning I
- r) 19441 Computer Applications in Architecture & Planning II
- s) EEP 199 Fundamentals of Engineering - Graphics Portion

### b) Courses revised & taught:

- a) ENGR-103 Freshman Engineering – Bridge Design – Independent sections
- b) AE-544 Building Envelope
- c) tDEC-100 University Seminar

- d) E031 Computer Applications in Architecture

**c) Courses taught:**

- a) ENGR 491-3 Senior Design for Architectural Engineers
- b) E070 Freshman Seminar
- c) E002 University Seminar
- d) CivE-370,1 Senior Seminar – Advised multiple students

## **7. Service to the Department, College & University:**

### **Department Service**

- a) Interim department Head
- b) Architectural Engineering Program Director
- c) Chair, Department Head Search Committee
- d) Chair, Departmental Computer Committee & CadLab Coordinator
- e) Founder and Chair, Architectural Engineering Curriculum Committee
- f) Member, CAEE Assessment Committee
- g) Member, Department Curriculum Committee
- h) Founder and Member (Ex-Officio), Architectural Engineering Advisory Council
- i) Member, several faculty search committees
- j) Chair, several faculty search committees
- k) Creator and Administrator – Undergraduate computing laboratory
- l) Committee on Academic Standing (COAS) – Lead AE member

### **College Service**

- a) Associate Dean, College of Engineering
- b) Member, College of Engineering Curriculum Committee
- c) Member, College of Engineering Assessment Committee
- d) Member, Committee on Academic Standing
- e) Member, Freshman Design Working Group
- f) Chair, College Computing Committee
- g) Chair, College of Engineering Honors Day Committee
- h) Member, College of Engineering Department Heads Tenure & Promotion Committee
- i) Coordinator – University Seminar course for College
- j) Coordinator – Full-Day Retreat on Freshman and Sophomore Years

### **University Service**

- a) Founding Director, Faculty Development Center
- b) Chair, University Computer Advisory Council
- c) Chair, Academic Support Committee, Faculty Senate
- d) Member, Provost Future Classroom Committee
- e) Member, University Honors College Advisory Council
- f) Member, Academic Planning Team
- g) Member, Steering Committee, Faculty Senate
- h) Member, University Facilities Renewal Task Force
- i) Founding Member, Drexel University Network Users Group
- j) Member, University Microcomputer Policy Committee
- k) Member, Academic Computing Policy Committee

- l) Member, University Computer Advisory Council
- m) Member, Technological University Group
- n) Member, University Seminar Committee
- o) Member, MBA Visions Committee
- p) Faculty Advisor, Drexel CoE Chapter of Tau Beta Pi Honor Society
- q) Faculty Advisor, Drexel Student Chapter National Society of Architectural Engineers
- r) Faculty Advisor, Viet Nang Student Association
- s) Member and Presenter, Technological University Group
- t) Member, Tenure Committee, Nesbitt College of Design Arts
- u) Member, Search Committee, School of Education
- v) Member, Financial Action Plan Task Force, Faculty Senate
- w) Participant - NSF Faculty Training seminar defining curriculum goals for the new "E-4" program
- x) Faculty Advisor, Drexel Student Chapter of Architectural Engineering Institute
- y) Faculty Advisor, Drexel Student Chapter of Habitat for Humanities
- z) Faculty Advisor, Drexel Fat Tire Club
- aa) Faculty Advisor, Drexel Squash Club
- bb) Developer and Presenter – New Faculty Orientation 2002 – 20010
- cc) Member, University Sabbatical Committee
- dd) Member, UAC on Writing
- ee) Member, Writing Intensive University Committee

## 8. Professional Activities

- a) Member – Architectural Engineering Institute (ASCE) – Academic Council 2008-Present
- b) Member - American Society of Civil Engineers. 1991 - Present.
- c) Secretary - Architectural Engineering Section, American Society for Engineering Education. 1989 - 1991.
- d) Chair - Publications Committee, Delaware Valley Chapter, National Society of Architectural Engineers. 1989 - 1992.
  - Responsible for publication and distribution of quarterly newsletter.
- e) Member, American Society of Engineering Education. 1988 - present.
- f) Founding Member, National Society of Architectural Engineers. 1988 - present.
- g) Member - Construction Specifications Institute. 1988 - 1992.
- h) President - Philadelphia Metro Chapter Professional Services Management Association. 1987 - 1989.
- i) Member - Philadelphia A. I. A. Headquarters Committee. 1985 - 1989 Participated in search for permanent headquarters for the local organization.
- j) Member, Executive Committee, Philadelphia Metro Chapter Professional Services Management Association. 1985 - 1989.
- k) Founding Member - Philadelphia Metro Chapter Professional Services Management Association. 1985 - 1989.
- l) Founding Chair - A. I. A. National Computers In Architecture Committee. 1983 - 1984. Established committee, developed policy for AIA nationally, advised on software development and evaluation and ran regular meetings. Developed resource book. Initiated national experiment on Computer Conferencing.
- m) Founding Chair - Philadelphia A.I.A. Computers for Architecture Committee. 1982 - 87. Developed and ran monthly meetings, prepared resource materials, ran seminars for general chapter membership.
- n) Member - Philadelphia A. I. A. Board. 1982 - 85.
- o) Treasurer - Philadelphia A.I.A. 1982 - 83. Instituted new accounting system; balanced chapter budget; computerized chapter reporting.
- p) Member - A. I. A. National Computers in Architecture Task Force. 1982. Reviewed and initiated AIA programs on computers in Architecture. Focused on computer conferencing using first EIES from NJIT and then PART I on the SOURCE.
- q) Member - A.I.A. Philadelphia Chapter Executive Director Search Committee. 1982 Evaluated and recommended candidates for Executive Director position

- r) Member - A. I. A. National Computers in Architecture Roundtable. 1981. Discussed Architect's needs for computerization and approaches the National organization should take to meet their needs.
- s) Member - A.I.A. Philadelphia Chapter Long Range Planning Committee. 1981. Prepared long-range goals for chapter.
- t) Member - A.I.A. Philadelphia Chapter Bookstore Task Force / Committee. 1981. Evaluated and advised on bookstore future.
- u) Member - Philadelphia A.I.A. Finance Committee. 1981 - 84.
- v) Associate Member - ASHRAE. 1980 to 1992.
- w) Chairperson - A.I.A. Philadelphia Chapter Professional Education Committee. 1979 - 80. Instituted "brown-bag lectures" and professional movie series at lunchtime.
- x) Co-Chair - A.I.A. Philadelphia Chapter A.I.A.-ASHRAE Joint Committee. 1979 - 80. Met regularly with Pennsylvania Governor's Energy Council; advised them on policy and legislation.
- y) Member - A.I.A. Philadelphia Chapter Nominating Committee. 1979.
- z) Member - A.I.A. Philadelphia Chapter Energy Committee. 1976 - 1980.
- aa) Member - American Institute of Architects (A.I.A.). 1976 to Present. – Now emeritus

## 9. Public and Community Service

- a) President – Yellow Barn Music School and Festival – 2010 - Present
- b) Board Member – Yellow Barn Music School and Festival – 2009- Present
- c) Member & Board Chair – Jubilee School Board of Trustees – 2003-2006
- d) Member - Long Range Planning Committee, The Philadelphia School. 1992 - 1999.
- e) Member - Building Committee, The Philadelphia School. 1989 - 1999. Responsible for selection of Architect and development of master plan for school.
- f) Board Member - Better Business Bureau of Philadelphia. 1987 - 1988.
- g) Chair - Long Range Planning Committee, The Philadelphia School. 1985 - 1988. Plan led to purchase of permanent home for the school.
- h) Board Member - The Philadelphia School. 1985 - 1999.

## 10. Consulting Work

- a) BLM Architects. 1992 Outside review of CAD system and operation.
- b) Lehigh University. 1988 Advised Architecture Program on developing CAD capabilities.
- c) Jordan, Mitchell, Inc. 1988 - 1990 Advised former firm on projects and legal matters.
- d) Dutch Consulate & Margot De Wit 1989 Advised on structural issues of "Dichotomy Project #18" - exterior multimedia installation.

## 11. Professional Registrations

- a) National Council of Architectural Registration Boards (NCARB). 1976 - present.
- b) Registered Architect - State of Pennsylvania. 1976 - Present. (inactive)
- c) Registered Architect - State of New York. 1987 - Present. (inactive)
- d) Registered Architect - State of New Jersey. 1987 - Present. (inactive)

## 12. Awards

- a) College of Engineering Teaching Excellence Award - 2013
- b) College of Engineering Outstanding Teaching Award - 2004
- c) Drexel University Senior Faculty Award, Undergraduate Level (Teaching Excellence) - 2002
- d) Drexel University Award for Outstanding Service to the University – 2001