Mark Allen Weiss

Eminent Scholar Chaired Professor of Computer Science
Associate Dean for Undergraduate Education, College of Engineering and Computing
Interim Director, School of Universal Computing, Construction, and Engineering EDucation
Florida International University
Miami, FL 33199
Email: weiss@cs.fiu.edu Phone: 305-348-2036 (office)
Web page: http://www.cis.fiu.edu/~weiss

Overview

Mark Allen Weiss is Eminent Scholar Chaired Professor in the School of Computing and Information Sciences and Associate Dean for Undergraduate Education of the College of Engineering and Computing at Florida International University. He also serves as Interim Founding Director of the School of Universal Computing, Construction, and Engineering EDucation (SUCCEED) having previously served for nine years as Associate Director of the School of Computing and Information Sciences. He received his Bachelor's Degree in Electrical Engineering from the Cooper Union in 1983, and his Ph.D. in Computer Science from Princeton University in 1987, after which he joined FIU. His interests include data structures, algorithms, and education. He is most well-known for his highly-acclaimed Data Structures textbooks, which have been used by a generation of students.

Professor Weiss is the author of numerous publications in top-rated journals and was recipient of the University's Excellence in Research Award in 1994. From 1997-2004 he served as a member of the Advanced Placement Computer Science Development Committee, chairing the committee from 2000-2004. The committee designed the curriculum and wrote the AP exams that are now taken by 60,000 high school students annually.

Dr. Weiss' work has received over 2,000 citations according to Google Scholar. In addition to his Research Award, Professor Weiss is the recipient of the University's Excellence in Teaching Award. He is a three-time winner of FIU's Top Scholar Award, a four-time winner of the internal competition for nomination as US Professor of the Year, and recipient of the 2017 FIU Torch Award. He is a Fellow of the Institute of Electrical and Electronics Engineers (IEEE) and American Association for the Advancement of Science (AAAS), and an ACM Distinguished Educator. He is the recipient of the 2015 ACM SIGCSE Award for Outstanding Contribution to Computer Science Education, the 2017 IEEE Computer Society Taylor L. Booth Education Award, and the 2018 IEEE Education Society William E. Sayle Achievement in Education Award.

Education

1987	Ph.D. in Computer Science, Princeton University
1985	M.A. in Computer Science, Princeton University
1984	M.S. in Electrical Engineering and Computer Science, Princeton University
1983	B.E. in Electrical Engineering (Summa Cum Laude), The Cooper Union for the Advancement of Science and Art

Professional Experience

2018 - present	Interim Founding Director, School of Universal Computing, Construction, and Engineering EDucation (SUCCEED), Florida International University, Miami, FL.
2017 - present	Associate Dean for Undergraduate Education, College of Engineering and Computing, Florida International University, Miami, FL.
2014 - present	Eminent Scholar Chaired Professor, School of Computing and Information Sciences, Florida International University, Miami, FL.
2009 - 2018	Associate Director for Academic Affairs, School of Computing and Information Sciences, Florida International University, Miami, FL.
1996 - 2014	Professor, School of Computing and Information Sciences, Florida International University, Miami, FL.
1992 - 1996	Associate Professor, School of Computer Science, Florida International University, Miami, FL.
1987 - 1992	Assistant Professor, School of Computer Science, Florida International University, Miami, FL.

Honors and Awards

2018	IEEE Education Society William E. Sayle Achievement in Education Award: Presented to only one individual annually since 1979. Citation: "For contributions to the advancement of Computer Science education through his books and curricular innovations that have enhanced student learning for both high school and college students." IEEE has 400,000+ members and IEEE Education Society is the IEEE society devoted to engineering education.
2018	FIU Top Scholar
2018	Fellow, Institute of Electrical and Electronics Engineers (IEEE). Citation: For advancements in computer science education. Conferral of fellow status is limited to 0.1% of all IEEE members annually.
2017	IEEE Computer Society Taylor L. Booth Education Award: Presented to only one individual annually since 1988. Citation: "For outstanding books, contributions to the Advanced Placement program, and their impact in the teaching of data structures and programming." Computer Society is the largest IEEE society.
2017	FIU Outstanding Faculty (Torch) Award: Presented to a single faculty member annually who has made a lasting impression on the lives of FIU students and alumni. FIU has over 1,200 fulltime faculty members.
2017	IEEE Region 3 Professional Leadership Award: Citation: "For authoring textbooks that have had a profound impact on generations of students, for invaluable service to the computer science community, and for efforts in educating." Presented to one of the ~30,000 members of IEEE Region 3 for outstanding leadership efforts in advancing the professional aims of IEEE in the United States.
2016	FIU Top Scholar
2015	ACM SIGCSE Award for Outstanding Contribution to Computer Science Education: Presented to only one individual annually since 1981. Citation: "For authoring textbooks that have had a profound impact on generations of students and for invaluable service to the computer science education community." ACM has 100,000+

	members and ACM SIGCSE is the third largest ACM SIG.
2015-2012	FIU Nominee, U.S. Professor of the Year (4-time internal competition winner)
2012	Fellow, American Association for the Advancement of Science (AAAS). Citation: "For distinguished contributions to the advancement of Computer Science education through his seminal books and curricular innovations that have impacted both high schools and colleges."
2012	FIU Top Scholar
2011	ACM Distinguished Educator
2007	FIU SCIS Excellence in Service Award
2005	FIU SCIS Excellence in Teaching Award
2004	College Board Certificate of Appreciation
2000	Data Structures and Algorithm Analysis textbook named one of the thirty most influential books of the twentieth century (ranked #13) by Dr. Dobbs
1999	FIU University Excellence in Teaching Award
1994	FIU University Excellence in Research Award
1994	FIU Teaching Incentive Program Award
1990	FIU Outstanding Achievement and Performance Award
1983	RCA Fellowship and Merit Prize to Princeton University
1981	New York City First Place Winner, Putnam Mathematics Contest

Administrative Experience

Founding Interim Director, School of Universal Computing, Construction, and Engineering EDucation (SUCCEED) 2018-present

- Initiated and led the creation of SUCCEED: **S**chool of **U**niversal **C**omputing, **C**onstruction, and **E**ngineering **ED**ucation a degree granting unit that serves as the tenure home for Engineering and Computing Education research faculty.
- Hired two tenure track assistant professors to join a tenure track assistant professor hired under my direction by the School of Computing and Information Sciences. Currently recruiting for additional faculty.
- With SUCCEED faculty, led and wrote the proposal for the new B.S. in Interdisciplinary Engineering, approved by FIU BOT and currently under review at Florida Board of Governors. Program includes one new course.
- With SUCCEED faculty, led and wrote the proposal for the new Ph.D. in Engineering and Computing Education, approved by FIU BOT and with anticipated approval at the Florida Board of Governors June 2019 meeting. Program includes twelve new courses.
- Obtained funding for the professional development of the school's website.
- Integrated Center for Diversity and Success in Engineering and Computing (CD-SEC) into SUCCEED.

Associate Dean for Undergraduate Education, College of Engineering and Computing, 2017-present

As Associate Dean for Undergraduate Education in the College of Engineering and Computing since September 2017, responsibilities include basic operations of the College's undergraduate academic programs, serving over 5,000 students, with 110 tenured/tenure track faculty and 37 instructors. Per ASEE, our College ranks #34 in production of undergraduate degrees, including #1 for Hispanic graduates and #9 for Black/African American graduates.

- Initiated and led the creation of SUCCEED: **S**chool of **U**niversal **C**omputing, **C**onstruction, and **E**ngineering **ED**ucation. This new unit, which is part of FIU's College of Engineering and Computing, adapts the engineering education research model established at other universities and will be the first engineering education department/school at a minority-serving institution. It will house two new planned degree programs: a Bachelor's of Science in Interdisciplinary Engineering, and a Ph.D. in Engineering and Computing Education.
- Created the Senior Design Project Showcase college-wide event, featuring senior projects of 500+ CEC majors per semester in the FIU Arena.
- Initiated and led with the Math department, the creation of specialized Calculus for Engineering sequence of courses.
- Redesigned Engineering Campus classrooms to enable flexible seating and active learning techniques.
- Increased four-year fulltime FTIC graduation rate from 18% to expected 25%.
- Optimized the College's summer offerings and budget, closing a preexisting significant structural deficit.
- With the Advisors and Chairs, developed and implemented strategies to meet student-based success metrics.
- Supervise the Director of Advising
- Serve as needed as the Dean's representative to College Faculty Council
- Work with student organizations to improve undergraduate education experiences and Engineering Campus facilities.
- Work with College Curriculum Committee and academic units to propose and approve all undergraduate curriculum changes, including streamlining of curricular requirements for several majors.
- Work with College of Arts, Sciences, and Education (CASE) on curricular and teaching reform for math courses taken by CEC students.
- Supervise College of Engineering and Computing Center for Diversity and Success in Engineering and Computing (CD-SEC), including allocating funds for student society chapters and design competition projects and coordinating review of college scholarships
- Mentor teaching for new assistant professors and non-tenure track faculty.
- Approve/deny various requests from students.
- Coordinate with Chairs and UPDs and GPDs for program and college assessment related to ABET reaccreditation.
- Assist with student grievances and disciplinary issues.
- Assist the Dean with Tenure and Promotion evaluations.

Associate Director for Academic Affairs, School of Computing and Information Sciences, 2009-2018

As Associate Director for Academic Affairs and Undergraduate Program Director of the School of Computing and Information Sciences, responsibilities include basic operations of the School's academic programs, serving over 2,000 students, with 30 tenured/tenure track faculty, 17 instructors, and roughly 35 adjunct faculty. At the end of my term, the School was among the top ten largest in the nation and doubled in size. The overall annual budget exceeded $15,000,000, including over $5,000,000 in research expenditures, ranking FIU Computer Sciences #35 according to NSF. The position was equivalent to Associate Dean at a large research university.

- Directly and singly responsible for obtaining over fifteen million dollars of state funding for programs that were ranked as #1 for program quality in the state by the Florida Board of Governors and served as the FIU lead in a joint effort with UCF and USF in the TEAm grant program, also ranked #1, resulting in an additional million plus dollar award.
- Created eleven new permanent instructor (including four female, six Hispanic), 25+ adjunct, and seven new permanent advisor positions.
- Created fully online B.A. and B.S. in Information Technology degree. **As of Spring 2019, added over 100 online majors in second year.**
- Created a new B.A. in Computer Science degree in face-to-face and fully online formats. **As of Spring 2019, the program added 500 new CS majors, 22% female in two years, compared to 16% in the B.S in Computer Science degree. The online version has 60 majors, 31% female.**
- Assisted in the creation of new Masters degrees in Cybersecurity and Data Science, both of which were joint programs with other units and in ECE department's Bachelor's degree in Internet of Things.
- Led two successful ABET re-accreditations, that included creation of new direct assessments. **2016-17 Self-Study report was selected by ABET for display of well-prepared Self-Study Reports at the 2017 ABET Symposium, April 21-22 in Baltimore, MD.**
- Served as School's liason for SACSCOC accreditation, creating new SLO and PO assessments. **Received special letter of commendation from Vice Provost for efforts in successful fifth year mid-cycle review.**
- Created and implemented a peer teaching evaluation process for non-tenure track faculty and for tenure-track faculty undergoing third year review or tenure review.
- Led curriculum redesign of IT and CS degrees.
- Acquired 8,000 sq ft of new space for state-of-the art Tech Station facility that includes hardware and software labs, advising space, classroom space, and group work space.
- Acquired 5,000 sq ft of additional new space for the MERIT (**M**ultiuse **E**ducation, **R**esearch, and **I**nterdisciplinary **T**raining) center, completed Summer 2018.
- Increased School's 6-year FTIC graduation rate from 22% for Fall 2004 and Fall 2005 cohorts to expected 57% for Fall 2013 cohort.
- Instituted mechanism to verify prerequisites for students enrolled in the College of Engineering and Computing.
- Created all course schedules for 80 faculty per year.
- Handled advising, student grievances, and approved graduation certifications.

- Expanded dual enrollment program from roughly 400 to nearly 800 instances of enrollment over five years and supervised assessment in accordance with SACSCOC requirements.

Additionally, served concurrently as Graduate Program Director from 2009-2011 (i.e. both Undergraduate and Graduate Program Director, and Associate Director for Academic Affairs)

Grants

1. National Science Foundation 1643965/1643931/1643835: Collaborative Research: Florida-IT-Pathways to Success (Flit-Path) (lead institution, partnering with UCF and USF), 2016-2021, $4,998,732. FIU Share: $1,944,118. (Role: Lead PI, with co-PIs Z. Hazari, M. Ross, M. Bassiouni, M. Georgiopoulos, K. Christensen, R. Perez.)
2. An Urban University Coalition Response to Florida's Computer and Information Technology Workforce Needs (joint with UCF and USF) 2013-2018, $4,858,413 (FIU share: $1,533,596) (Role: FIU lead).
3. State of Florida IT Performance Funding Award, 2012-2017, $18,750,000 (Role: Institution lead).
4. National Science Foundation: CISE-EIA: *Development of an Institutional Infrastructure with Special Focus on Human-Computer Interfaces and Information Processing*, (co-PI with M. Adjouadi, A. Barreto, M. Martinez, A. Pasztor, G. Roig, M. Weiss, R. Coatie) Sep 1999 – Aug 2006, $1,437,770.
5. Defense Information Systems Agency: *Data Structures Using Ada9X*, 1994, $43,075.
6. FIU Foundation: Summer Research Grant, 1989, $10,350.
7. Florida State University Supercomputer Grant, 1988, $16,000.

Selected Publications

1. M. Taheri, M. Ross, Z. Hazari, M Weiss, M. Georgiopoulos, K. Christensen, A. Garcia, D. Chari, T. Solis, “A Structural Equation Model Analysis of Computing Identity Sub-Constructs and Student Academic Persistence,” Frontiers in Education, 2018.
2. A. Garcia, M. S. Ross, Z. Hazari, M. A. Weiss, T. Solis, and M. Taheri, “Examining the Computing Identity of High-Achieving Underserved Computing Students on the Basis of Gender, Field, and Year in School,” National Collaborative for Engineering Diversity (CoNECD), 2018.
3. R. Balcazar, F. Ortega, K. Tarre, A. Barreto, M. Weiss, and N. Rishe, “CircGR: Interactive Multi-Touch Gesture Recognition using Circular Measurements,” ACM International Conference on Interactive Surfaces and Spaces (2017), 12-21.
4. M. A. Weiss, “Data Structures, Past, Present, and Future,” Proceedings of the 46th ACM Technical Symposium on Computer Science Education, 2015 (Keynote address).
5. M. A. Weiss, *Data Structures and Algorithm Analysis in C++*, Addison Wesley, Reading, MA., 1994, 498 pgs. Second edition, 1999, 588 pgs. Third edition, 2007, 586 pgs. Fourth edition, 2014, 656 pgs.
6. M. A. Weiss, “Data Structures,” Handbook of Computer Science, CRC Press, Third Edition, 2014.
7. Robert K Lowery, G. Uribe, E. B. Jimenez, M. A. Weiss, K. J. Herrera, M. Regueiro, and R. J. Herrera, “Neanderthal and Denisova genetic affinities with contemporary humans: introgression versus common ancestral polymorphisms,” Gene, 530 (2013), 83-94.
8. M. A. Weiss, *Data Structures and Algorithm Analysis in Java*, Addison Wesley, Reading, MA., 1999, 542 pgs. Second edition, 2007, 546 pgs. Third edition, 2012, 614 pgs.

9. M. A. Weiss, *Data Structures and Problem Solving Using Java*, Addison Wesley, Reading, MA., 1998, 780 pgs. Second edition, 2002, 886 pgs. Third edition, 2006, 926 pgs. Fourth edition, 2010, 988 pgs.
10. M. A. Weiss, "Parameter Passing," Encyclopedia of Computer Science and Engineering, Wiley, 2009.
11. S-C. Chen, X. Wang, N. Rishe, and M. A. Weiss, "A Web-Based Spatial Data Access System Using Semantic R-Trees," *Information Science: An International Journal*, 167 (2004), 41-61.
12. M. A. Weiss, "STL," Handbook of Data Structures and Applications, CRC Press, 2004.
13. M. A. Weiss, *C++ for Java Programmers*, Prentice-Hall, Upper Saddle River, NJ, 2004, 280 pgs.
14. M. A. Weiss, *Data Structures, and Problem Solving with C++*, Addison Wesley, Reading, MA., 1996, 820 pgs. Second edition, 2000, 944 pgs.
15. O. Astrachan, G. Chapman, S. Rodger, and M. A. Weiss, "The Reasoning for The Advanced Placement C++ Subset,'' *SIGCSE Bulletin* (1997), 62-65.
16. M. A. Weiss, "Experiences Teaching Data Structures with Java," *SIGCSE Bulletin* (proceedings of the 28th SIGCSE Technical Symposium), (1997), 164-168.
17. M. A. Weiss, *Operating Systems*, article published as part of *Microsoft's Encarta Encyclopedia*, 1997.
18. M. A. Weiss, *Data Structures and Algorithm Analysis in C*, Addison Wesley, Reading, MA., 1993, 461 pgs. Second edition, 1997, 512 pgs.
19. S. Guo, W. Sun, and M. A. Weiss, "On Solving Satisfiability, Implication, and Equivalence Problems Involving Conjunctive Inequalities in Database Systems," *IEEE Transactions on Knowledge and Data Engineering* 8 (1996).
20. S. Guo, W. Sun, and M. A. Weiss, "Solving Satisfiability and Implication Problems in Database Systems," *ACM Transactions on Database Systems* 21 (1996), 270-293.
21. M. A. Weiss, "Shellsort with a Constant Number of Increments," *Algorithmica*, 16 (1996), 649-654.
22. M. A. Weiss, *Data Structures and Algorithm Analysis in C*, published as part of the *Dr. Dobbs CD on Essential Algorithms*, 1996.
23. M. A. Weiss, *Efficient C Programming: A Practical Approach*, Prentice-Hall, Englewood Cliffs, NJ., 1995, 528 pgs.
24. M. A. Weiss, *Data Structures and Algorithm Analysis*, Benjamin/Cummings Publishing Co., Redwood City, CA., 1992, 455 pgs. Second edition, 1995, 510 pgs.
25. W. Sun and M. A. Weiss, "An Improved Algorithm for Implication Testing Involving Arithmetic Inequalities," *IEEE Transactions on Knowledge and Data Engineering* 6 (1994), 997-1001.
26. Y. Ding and M. A. Weiss, "On the Complexity of Building an Interval Heap," *Information Processing Letters* 50 (1994), 143-144.
27. M. A. Weiss, "On Finding the Height of a Binary Search Tree," *Computer Journal* 36 (1993), 280-281.
28. Y. Ding and M. A. Weiss, "The Relaxed Min-Max Heap: A Mergeable Double-Ended Priority Queue," *Acta Informatica* 30 (1993) 215-231.
29. Y. Ding and M. A. Weiss, "The k-d Heap: An Efficient Multi-Dimensional Priority Queue," *Proceedings of the Third Workshop on Algorithms and Data Structures*, Montreal Canada, Aug. 1993, Springer-Verlag Lecture Notes #709, 303-314.

30. C. Orji, J. Solworth, and M. A. Weiss, "Improved Traditional Mirrors, " *Proceedings of the Fourth International Conference on Foundations of Data Organization and Algorithms*, Chicago Illinois, Oct. 1993, Springer-Verlag Lecture Notes #730, 329-344
31. M. A. Weiss, *Data Structures and Algorithm Analysis in Ada*, Benjamin/Cummings Publishing Co., Redwood City, CA., 1993, 480 pgs.
32. Y. Ding and M. A. Weiss, "Best Case Lower Bounds for Heapsort," *Computing* 49 (1992), 1-9.
33. B. Feild, G. Fraguio, J. K. Navlakha, and M. A. Weiss, "Expert Systems and Music: Translating Piano Music into Guitar Chords," *Advances in Artificial Intelligence Research, Volume II*, JAI Press, 1992.
34. M. A. Weiss, "Empirical Study of the Expected Running Time of Shellsort," *Computer Journal* 34 (1991), 88-91.
35. M. A. Weiss and R. Sedgewick, "Tight Lower Bounds for Shellsort," *Journal of Algorithms* 11 (1990), 242-251.
36. M. A. Weiss and R. Sedgewick, "More On Shellsort Increment Sequences," *Information Processing Letters* 34 (1990), 267-270.
37. M. A. Weiss and J. K. Navlakha, "The Distribution of Keys in a Binary Heap," *Proceedings of the Workshop on Algorithms and Data Structures*, Ottawa Canada, Aug. 1989, Springer-Verlag Lecture Notes #382, 510-516.
38. M. A. Weiss and R. Sedgewick, "Bad Cases for Shaker Sort," *Information Processing Letters* 28 (1988), 133-136.
39. M. A. Weiss and R. Sedgewick, "Tight Lower Bounds for Shellsort (extended abstract)," *Proceedings of the Scandinavian Workshop on Algorithms and Theory*, Halmstad Sweden, July 1988, Springer-Verlag Lecture Notes #318, 255-262.

Panel Discussions

1. R. L. S. Drysdale, J. Hromcik, M. A. Weiss, R. Hahne, "Java in the Morning… Java in the Evening… Java in 2004," SIGCSE 2003.
2. D. Gries, K. Larson, S. H. Rodger, M. A. Weiss, U. Wolz, "AP CS Goes OO," SIGCSE 2001.
3. T. Dick, R. Peck, M. A. Weiss, "AP and College Faculty: What's in it for me?," ICTCM 2000.
4. M. Stehlik, S. Fix, S. H. Rodger, C. Nevison, M. A. Weiss, "Advanced Placement Transition to C++," SIGCSE 1998.

Professional Activities

1. Member IEEE Computer Society Awards Committee and Chair of the Taylor Booth Award Subcommittee (2018-2020)
2. Member, IEEE Computer Society Fellows Committee (2018)
3. Member, ACM Education Advisory Committee (formerly ACM Council) (2016-2019)
4. Elected Member, ACM SIGCSE Advisory Board (2016-2019)
5. Advisory Board Member, IEEE International conference on Emerging Computation and Information Technology (ICECIT-2017)
6. Interim Educational Activities Chair, IEEE Education Society Florida Chapter (2016)
7. Computer Science Discipline Coordinator, Florida Department of Education (2011-2018)
8. Program Committee Member ACMSE (2006)

9. Member of the *Advanced Placement Computer Science Development Committee* (1997-2004); Chairperson of the committee (2000-2004)
10. Member (1999-2000) of the *Ad-Hoc Committee* on the Future of the Advanced Placement Examination (1995-1996)
11. Member of the *Ad-Hoc Committee* that advised the College Board on how to incorporate C++ into the Advanced Placement Exam (1995-1996)
12. Reader of the *Advanced Placement Computer Science Examination* (1999)
13. Columnist for the *ACM SIGACT News*. The *Journal Backlog Report* and *Technical Report Column* were regularly appearing features (1992-1997).
14. Examiner for the Educational Testing Service: I have written questions for the Computer Science GRE Examination (1990s).
15. Registration Chair for PDIS I, 1991.
16. Judge for the International Science and Engineering Fair, Orlando (1991)

University Service

1. Co-Chair, FIU 2025 Strategic Plan "Enhancing student experience and certification of workforce competencies" workgroup (2018-2019)
2. Member, Faculty Senate (Spring 1991-1992, 2015-2017)
3. Member, Council of College Research & Graduate Education Administrators (2017-)
4. Member, University Student Success Committee (2016-2017)
5. Member, University Sustained Performance Evaluation Policy Committee (2015-2017)
6. Member, American Disabilities Act Compliance Subcommittee (2012-2013)
7. Inaugural Member, University Graduate School Advisory Committee (2011-2016)
8. Member, College of Engineering and Computing 25th Anniversary Committee (2009)
9. Member, University Sabbatical Leave Committee (2008-2009)
10. Member and Chair, College of Engineering and Computing Committee on Tenure Revision Guidelines (2007)
11. Member, College of Engineering and Computing Committee on Implementing the New Class Schedule (2006-2007)
12. Member and Vice Chair, College of Engineering and Computing Faculty Council (2006-2007)
13. Member, University Tenure and Promotion Policy Committee (1998-1999)
14. Member, University Curriculum Committee (1998-1999)
15. Procedural Committee, College of Arts & Sciences (1991-1992, (chair) 1992-1995)
16. Secretary, College of Arts & Sciences (1992-1994)
17. Member, University Academic Policies Committee (1991-1993)
18. Editor of UFF Newsletter (1989-1991)
19. Member, College of Arts & Sciences Library Committee (1987-1989)

School of Computing and Information Sciences Service

1. Undergraduate Program Director (2009-2018)
2. Graduate Program Director (1994-1996, 2009-11)
3. Human Resources (Tenure and Promotion) Committee (1989-1990, 1992-1995, (chair) 1996-1997, 2002-2004, (chair) 2006-2007, (chair) 2008-2009)
4. Graduate Committee (1988-1990, 1991-1992, 1994-1996)
5. Curriculum Committee ((chair) 1998-1999, (chair) 2001-2002, (chair) 2003-2004, 2004-2005)
6. Recruitment Committee (1989-, (chair) 1990-1992, (chair) 1997-1998, (chair) 1999-2001, (chair) 2002-2003, 2006-2007)
7. Equipment Committee ((chair) 2004-2006)
8. Awards Committee ((chair) (2006-2007, 2008-2009))
9. Editor CONNECT Newsletter (1996-1997)
10. TIP Award Committee (1996)
11. Faculty Advisor for Programming Team (1990-1991) (with M. Milani); team was second in region and advanced to ACM Finals.
12. Colloquium Series Coordinator (1990-1991, 1997-1998)

Master's Thesis Supervision

1. Xinwei Cui, “Using Genetic Algorithms to Solve Combinatorial Optimization Problems,”(1991)
2. Xiao Sheng, “Implementation of the *k*-d Heap,” (1996)
3. Yuping Huang, “Comparison of Searching Algorithms,” (1996)

Courses Developed

1. Topics in Algorithms (Spring 1989)
2. C for Engineers (Fall 1991)
3. Programming III (Spring 2002)
4. Algorithm Techniques (Spring 2012)
5. Discrete Structures (Fall 2016)

Courses Taught

1. Introduction to Programming (COP-2210)
2. C for Engineers (CGS-3423)
3. Programming II (COP-3212/COP-3337)
4. Intermediate Java Programming (COP-3804)
5. Advanced Programming (COP-3223/COP-3338)
6. Data Structures (COP-3530, recent sections recorded)
7. Unix Systems Programming and C (COP-4225)
8. Programming III (COP-4338)
9. Topics in Algorithms (COT-5992/COT-5936/COT-6936)
10. Analysis of Algorithms (COT-6315/COT-6400/COT-6405)
11. Computer Data Analysis (CGS-2100, fully online)
12. Introduction to Algorithms (COT-5407, some sections fully online)
13. Algorithm Techniques (COP-4534, recent sections recorded)