

Marquette University
OPUS Dean, College of Engineering
September 2009

Position: OPUS Dean, College of Engineering
Institution: Marquette University
Location: Milwaukee, Wisconsin
Reporting Relationship: Reports to the Provost
Website: www.marquette.edu
See also: <http://www.marquette.edu/opusdean/>

THE OPPORTUNITY

The successful candidate for this unique opening will occupy the endowed Dean's position, spearhead the new \$100 million Discovery Learning Complex currently under construction, and have the opportunity to implement a vision for game-changing engineering education at our distinguished engineering college. Exceptional applicants will aspire to have an impact on the role of engineering locally and internationally, while working closely with talented colleagues who share a commitment to preparing men and women for others and partnering with leaders in industry. These attributes are aligned with Marquette's rich history of collaboration, teaching and research excellence.

COLLEGE OF ENGINEERING VISION

The Marquette College of Engineering will be known for its leadership in balancing the education of the whole person – *Cura Personalis* – with world-class research improving the quality of life.

All great academic programs begin with top-flight teachers – the fuel for quality instruction. We will seek out generous support from our benefactors to endow academic chairs and named faculty fellowships that attract this caliber of teacher to our college community.

Faculty – new and tenured – will continue to introduce better ways to educate our students. We will reward faculty who understand and embody how teaching and research go hand-in-hand, and whose scholarly accomplishments are respected by their peers.

Outstanding faculty will attract gifted students. Since the financial needs of many of these students outstrip their available resources, we will aggressively pursue endowed scholarships to dramatically increase the level of support we can offer our student community.

Our students expect and deserve learning environments in which they can hone their skills to meet the demands placed on today's engineers. We will aggressively pursue capital campaigns that provide our students with modern facilities, laboratories, and technologies. We will be unwavering in our dedication to maximizing the probability of our students' success.

As we teach our students to build computers, highways, robots, or artificial hearts, we will also act to build their character and infuse moral values that develop their desire to be men and women dedicated to serving others.

We will never lose sight that this is the mark and quality of a Marquette Engineer.

DISCOVERY LEARNING COMPLEX (under construction, artist rendering available)
<http://www.marquette.edu/engineeringonamission/>

The College of Engineering is currently in the midst of a \$150,000,000 campaign, which incorporates a new \$100,000,000 Engineering building as well as \$35,000,000 for endowed chairs, and \$15,000,000 for scholarship. The goal of the new building, called the Discovery Learning Complex, is to develop a new paradigm for the delivery of engineering education that meets the 21st century need for engineers in a global economy. The foundation of this transformation is the bold new building that fosters collaboration and hands-on discovery learning. The end result will be an integrated learning and teaching environment that emphasizes:

- Cross-disciplinary teams of students and faculty
- Discovery learning blending theory, design and hands-on application
- Alignment of academics and industry design
- Awareness of the diverse needs of our multicultural world

ESSENTIAL FUNCTIONS OF THE DEAN

<http://www.marquette.edu/engineering/pages/AllYouNeed/deansoffice/deansoffice.html>

The OPUS Dean is the Chief Academic Officer of the College of Engineering, providing leadership to promote teaching, research and service to faculty and students as well as community outreach in support of the College and University mission. The Deanship for the College is a position endowed by a gift from the OPUS Corporation. It was the first endowed deanship at Marquette. The Dean is responsible for developing and articulating the college vision, coordinating strategic planning, directing all administrative structures and functions, fundraising and building alumni relations, and determining overall direction of the college.

Duties and responsibilities include:

- Develop, implement, and continue to deploy the College's strategic plan, particularly as it relates to the Discovery Learning Complex; of transforming students, transforming faculty and curriculum, and transforming facilities.
- Promote faculty development in teaching and research.
- Strengthen College faculty through recruitment, hiring, and promotion and tenure process.
- Oversee curriculum development and assessment.
- Represent the College's fundraising initiatives.
- Build strategic relationships with the community and alumni.
- Work closely and maintain ongoing interaction with the Graduate School.
- Maintain and strengthen the College's relationship with other academic and non-academic units on campus.

- Maintain and strengthen the College's relationship with external partners, including other higher ed. institutions and private businesses.
- Maintain and strengthen STEM activities.
- Work to engage industry and build industry relations with the College.
- Work closely with leadership in the College (department chairs and college executive committee) to support the College and University mission.
- Work closely with the College's National Advisory Council.

CANDIDATE PROFESSIONAL EXPERIENCE/QUALIFICATIONS NEEDED

- An earned doctorate and a record of teaching and research meriting tenure as a full professor in a department within a College of Engineering are required.
- Registered PE is preferred.
- Appreciation for, and a commitment to, the Catholic, Jesuit higher education vision.
- Commitment to the professional development of faculty in teaching and scholarship.
- Able to articulate and communicate compellingly, across the University and to external audiences, the value of an education in engineering and the vision of the Discovery Learning Complex.
- A demonstrated record and the ongoing ability to effectively support the activities and needs of the academic areas of a College.
- Curricular and programmatic experience at the undergraduate and graduate levels; experience with doctoral education.
- A demonstrated record and ongoing ability to work effectively with diverse groups and individuals.
- Administrative experience in Engineering higher education, including fiscal management and strategic planning, such as a department chairmanship, deanship, or commensurate experience.
- Fundraising ability and commitment to academic priorities.
- Excellent listening, compromising, decision-making, and consensus-building skills.
- Able to incorporate new information, higher education trends and developments, and ongoing learning into effectively leading the College.
- Committed to the balance of teaching and research at Marquette, including the pursuit of external research funding and advocating for resources for the College.
- Business-related budgeting experience and exposure to industry, including technology and innovation, are preferred.

COLLEGE OF ENGINEERING

<http://www.marquette.edu/engineering/>

Marquette University is the largest Catholic College of Engineering in the nation with 1027 undergraduates and 299 graduate students. It is ranked number one in the nation among Jesuit colleges of engineering.

Since 1908, the Marquette University College of Engineering has been uniquely blending professional engineering preparation with a liberal arts education to provide the world with well-balanced leaders in their profession. Co-developing expertise in engineering with communications and reasoning skills is absolutely critical to engaging,

hearing, and reacting to the voice of the stakeholder in ways that are both successful and sustaining.

The College of Engineering offers six undergraduate degrees in 10 majors through four departments: Biomedical Engineering; Civil and Environmental Engineering; Electrical and Computer Engineering; and Mechanical Engineering. Five degree programs are accredited, accreditation of the sixth degree program, Construction Engineering and Management, is planned for 2012. Marquette also offers a wide range of graduate and doctoral programs.

MARQUETTE UNIVERSITY

Marquette University is a Catholic, Jesuit institution founded in 1881. Located on a 90 acre urban campus, the university serves more than 8,000 undergraduate and 3,500 graduate and professional students through 12 colleges and schools: Helen Way Klingler College of Arts and Sciences; College of Business Administration; Graduate School of Management; J. William and Mary Diederich College of Communication; School of Dentistry; College of Education; College of Engineering; Graduate School; College of Health Sciences; Law School; College of Nursing; College of Professional Studies.

Marquette University ranks 77th among the top national universities in the 2009 edition of America's Best Colleges published by U.S. News & World Report. Marquette was listed among the 268 U.S. universities that offer undergraduate as well as masters and doctoral degrees. Marquette was one of only 25 universities recognized for service learning under "Programs to Look For."

There are 1,102 (full-time/part-time) faculty and 1,258 (full-time/part-time) staff. The university has been recognized in each of the past two years as one of southeastern Wisconsin's "Best Places to Work," based on employee surveys and other data.

The budget for the current year is approximately \$360 million.

MISSION

Marquette University is a Catholic, Jesuit University with a commitment to faith, excellence, leadership and service. Marquette's mission is the search for truth, the discovery and sharing of knowledge, the fostering of personal and professional excellence, the promotion of a life of faith, and the development of leadership expressed in service to others.

VISION

Marquette's vision is to provide a Catholic, Jesuit education that is "genuinely transformational," so that our students graduate not simply better educated but better people, and to do so with such excellence that, when asked to name the three or four best Catholic universities in America, people will include Marquette as a matter of course.

COMPENSATION

The successful candidate will receive a compensation package that is competitive and commensurate with her or his experience.

Marquette University is an equal opportunity employer; women and minority candidates are encouraged to apply.

SEARCH FIRM CONTACT

Please send cover letter and CV or nominations, in confidence, to:

Martin Baker

Baker and Associates LLC

301 N. Main Street

Suite 2449

Winston-Salem, NC 27101

336.768.5970

mbaker@baasearch.com

MARQUETTE UNIVERSITY CONTACT

Jeff Snell, Ph.D.

Special Advisor to the President

Marquette University

P.O. Box 1881

Milwaukee, WI 53201-1881

Jeff.snell@marquette.edu

ADDITIONAL INFORMATION ON THE COLLEGE OF ENGINEERING:

COLLEGE OF ENGINEERING MISSION

<http://www.marquette.edu/engineering/pages/AllYouNeed/deansoffice/mission.html>

The mission of the Marquette University College of Engineering is to excel in four critical areas:

- To prepare all students for successful careers based on a strong moral and ethical foundation
- To advance the state-of-the-art in engineering
- To serve our professional and technical communities
- To contribute to our global society

COLLEGE OF ENGINEERING GOALS

- Improve financial position
- Increase student enrollment & diversity
- Strengthen undergraduate programmatic quality
- Strengthen graduate programmatic quality
- Increase scholarly productivity
- Expand alumni relationships
- Increase outreach to communities
- Strengthen staff support services

LEARNING AND TEACHING: UNDERGRADUATE EDUCATION

- The College of Engineering guarantees the availability of required courses to graduate in four years.
- All engineering courses are taught by regular faculty with full or part-time faculty appointments rather than teaching assistants.
- The College maintains a near common freshman curricula, making it easy to be an undecided freshman. Transfer within the college departments is not restricted or limited by quotas. Approximately 20% of entering freshmen have undeclared majors.
- Minors are available in many areas including business, mathematics, computer science, physics, and areas of engineering other than the student's major. An Engineering Ethics and Values minor is also available.
- Marquette has been a pioneer in the development of interdisciplinary freshman through senior engineering design. Many senior design projects include significant interaction with local industry.
- The average course credit load for day students is 16.5 credit hours. Average class size in engineering is 33 students for lower-division courses and 23 for upper-division courses.

OVERVIEW OF PROGRAMS AND COLLABORATIONS

Marquette University has enjoyed strong research collaborations and joint educational programs with the Medical College of Wisconsin since the late 1960's, and is currently a member of the Clinical Translational Science Institute (CTSI) of Southeast Wisconsin, which represents a unique and transformative collaboration among the Medical College of Wisconsin, Froedtert Hospital, Children's Hospital of Wisconsin, the VA Medical Center, the Blood Research Institute, Marquette University, the University of Wisconsin-Milwaukee, and Milwaukee School of Engineering. The CTSI supports and advances education, collaboration and research in clinical and translational science in the region. The Medical College of Wisconsin, and affiliated hospitals offer excellent research and clinical facilities for Marquette faculty and students to engage in internationally recognized, multidisciplinary research that is highly funded through the National Institutes of Health, the National Science Foundation, the Department of Education and numerous private foundations. MU COE faculty also collaborate on research programs and offer student research experiences with the Rehabilitation Institute of Chicago and the Shriner's Hospital of Chicago. These research partnerships support Marquette's Falk Neurorehabilitation Engineering Research Center, the Orthopedic Rehabilitation Engineering Center and the Keck Center for Microfocal Angiography.

Joint degree programs between MU and MCW include graduate programs in healthcare technologies management, functional imaging and bioinformatics. More than 40 MCW faculty serve as adjunct professors in the MU College of Engineering. Likewise, COE faculty also have appointments at the Medical College of Wisconsin.

- All departments offer BS, MS and PhD programs.
- A five-year BS/MS degree program is available to engineering students.
- All established programs are ABET accredited.
- Cooperative Education opportunities are nationwide, providing first term co-op incomes averaging \$14 per hour or more. Approximately 50% of Marquette engineering students participate in Co-op.
- Marquette Engineering programs also lead to many other career paths such as law, medicine, dentistry, and business.

CENTERS AND LABORATORIES

For a complete list of centers and laboratories in Biomedical Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, and Mechanical Engineering, please visit

<http://www.marquette.edu/engineering/pages/AllYouNeed/depts.html>

STEM & EXTERNAL RELATIONS

Outreach activities have increased dramatically in recent years. These activities effectively address three populations; students, parents and teachers. Project Lead the Way has become a major educational program in the state and country. The College of Engineering has expanded the number of partner schools and looks to support their efforts in an effective way. Below are some of the numerous outreach activities organized by and/or participated in by the College of Engineering:

STEM activities:

- Winter, Spring and Summer Academies
 - Engineering for Young Minds
 - Robotics Engineering Lego RCX and NXT Mindstorms
 - T.O.Y.S. Teaching Our Youth Strategies
 - The World of Polymers
 - Women in Engineering
 - Engineering: It's a Girls Thing
 - Engineering is a Family Affair
 - Robotics Engineering – Saturday Series
 - Mechanical Engineering
 - Electrical Engineering
 - Civil Engineering
 - Physics Series
 - Franklin Family Day
- Project Lead the Way
 - School partnerships with 13 high schools in the Milwaukee area
 - Membership on the Wisconsin State Leadership Council - PLTW State leaders group advises on policy and state financial issues for middle and high schools
 - Activities with partners

- Scholarships -\$1000 to PLTW participants
- Student Mentors
 - Engineering formed a mentoring group composed of several COE students
 - Women engineering students mentor girls at Divine Savior Holy Angels High School and with women in engineering efforts.
- The Infinity Project
 - Divine Savior Holy Angels High School
 - Female mentors from COE help recruitment efforts
 - On campus programming for students.
- SySTEM Now!
 - COE Sponsorship October 21, 2008 at Marquette University
 - This event is a major opportunity for Marquette to show our program offerings and to display our awareness of educational issues facing local schools, teachers and administrators.
- Educational Research Partners
 - Marquette will be partnering with two schools for proposed NSF and US Office of Education projects involving STEM education initiatives.
 - Milwaukee Academy of Science
 - Carmen High School of Science and Technology
- Badger State Science and Engineering Fair
 - Host Organization
 - Scholarship -\$10,000 scholarship for Engineering category winner (winner will attend Marquette)
- FIRST Robotics Competition
 - Regional Planning Committee
 - Financial support
 - COE Supported a \$4000 scholarship – 2009 winner to attend Marquette
 - Team technical support
 - Robotics Partners
 - St. Thomas More
 - Pius XI
 - Marquette University High School
 - Brookfield East High School
 - Oconomowoc High School
 - Messmer High School
 - Kettle Moraine High School
 - Fondy Fire
 - CORE Engineering Staffing
- Rube Goldberg Machine Contest
 - Milwaukee Engineering Partnership
 - Design and Construction Award Sponsored by COE
- Milwaukee Academy of Science
 - NSBE outreach
 - First Robotics

- First Lego League
- Project Lead the Way
- Educational research partner

Collaboration with other external constituents:

The College of Engineering is currently collaborating with multiple other colleges and universities in the area on a number of important issues, including:

The Southeastern Wisconsin Energy Research Technology Center (SWETRC)

Marquette is collaborating with the University of Wisconsin-Milwaukee (UWM) and the Milwaukee School of Engineering (MSOE) to form the Southeastern Wisconsin Energy Research Technology Center (SWETRC). The Center will be a collaborative initiative between the US Department of Energy National Energy Technology Lab, the three institutions, and several regional industries and foundations. The goal of the SWETRC is to generate technology to foster economic growth in Southeastern Wisconsin.

Water Center

Marquette is collaborating with UWM and several regional industries to form a regional center focused on Water Equipment and Policy. Funds are being requested from the National Science Foundation (NSF) for an Industry/University Collaborative Research Center (I/UCRC). This Center will provide a structured mechanism for industry and academic researchers to work together on common industry-defined research challenges. This effort is part of the University/Corporate Linkages committee of the Milwaukee 7 Water Council, a cooperative arrangement between a seven-county region in southeastern Wisconsin to create mutually beneficial regional partnerships.

Regional Transportation Center

Marquette is collaborating with UWM, the Medical College of Wisconsin (MCW), the Wisconsin Department of Transportation, the Federal Highway Administration, and the Milwaukee Institute to form a regional transportation center. This collaboration will be built on leading innovation in highway safety, transportation infrastructure technology, highway materials, freight management systems and emergency services technology. The Center will align the relationships between the various organizations to realize numerous opportunities.

For a complete list of partnerships in the College of Engineering, please visit:

<http://www.marquette.edu/engineering/pages/GettingInvolved/partners.html>

ABOUT THE MILWAUKEE AREA

Milwaukee is the 22nd largest city in the United States, with a population of 596,974 in the city and 1.5 million in the metropolitan area. Bordering the western shore of Lake Michigan, Milwaukee is just 90 miles north of Chicago and less than a day's drive from the Twin Cities, St. Louis or Indianapolis. General Mitchell International Airport provides direct or non-stop flights to 90 different destinations, the city's new rail depot offers easy and economical access to markets throughout the nation, and the Port of Milwaukee

connects the region with shipping markets around the world. Metropolitan Milwaukee offers urban, suburban, and ethnic neighborhoods and waterfront, industrial and rural settings within minutes of each other. The region's skilled workforce, concentration of industry, cultural resources and educational institutions make it a vibrant metropolitan area.

The Milwaukee region ranks 10th among cities nationwide in the number of corporate headquarters per capita and is home to Brady Corp., Briggs & Stratton, Fiserv, GE Healthcare Technologies, Harley-Davidson, Jockey International, Johnson Controls, Joy Global, Kohl's Department Stores, Master Lock, Manpower, Miller Brewing Company, Northwestern Mutual, Rockwell Automation and SC Johnson.

Milwaukee's big-city advantages are enhanced by a friendly small-town spirit. The city's neighborhoods weave a patchwork of diversity, as characteristics of the German heritage blend with influences of many other cultures. Italian, Irish, Polish, African American, Asian and Hispanic neighborhoods with ethnic restaurants and shops make up the fabric of Milwaukee.

Ranked number one in the nation for donations raised per capita for the arts by the United Performing Arts Fund, Milwaukee offers audiences an extensive variety of visual and performing arts. With a history dating back to 1888, the Milwaukee Art Museum's far-reaching collection includes nearly 20,000 works from antiquity to the present. The museum itself is an architectural landmark, comprised of three buildings designed by three legendary architects: Eero Saarinen, David Kahler, and Santiago Calatrava. The 2001 Calatrava addition was named Best Design of 2001 by Time Magazine and has literally changed the image of Milwaukee.

Milwaukee is home to several performing arts groups, including the Milwaukee Repertory Theater, Milwaukee Symphony Orchestra, Milwaukee Ballet and The Florentine Opera Company. The Marcus Center for the Performing Arts and the Milwaukee Theater host touring Broadway productions. The Milwaukee Public Museum, Discovery World, Betty Brinn Children's Museum and the Harley-Davidson Museum among others provide educational entertainment.

Milwaukee is also home to the Hank Aaron Trail, which provides a continuous connection for biking or hiking between Miller Park Stadium and the lakefront. There are also many internationally recognized festivals – from Summerfest's 10-day music festival to weekend ethnic celebrations. Winter brings an opportunity for a wide variety of outdoor sports.

A full range of professional sports teams call Milwaukee home. In spring and summer, the Milwaukee Brewers offer major league baseball at Miller Park, a \$400 million, one-of-a-kind ballpark featuring a convertible roof and natural grass. From late October through the spring, the NBA Central Division Milwaukee Bucks play in the Bradley Center. Of course, Marquette University's Golden Eagles teams are members of the NCAA Big East basketball conference. There are also the American Hockey League's Milwaukee Admirals and the Major Indoor Soccer League's Milwaukee Wave. The Green Bay Packers football team is a 90-minute drive to the north. Chicago is 90-minute drive to the south.

Milwaukee's restaurant mix ranges from ethnic flavors to innovative cuisine. Some specialties include German, Italian, French, Irish, Mexican, Indian, Asian, Greek and English, to brats, burgers and frozen custard. After-hours entertainment ranges from jazz

clubs to brewpubs, which serve up a wide variety of handcrafted beer in the Cream City tradition.