Graduate Program in Civil Engineering with concentration in Construction Management

Prepared by: Sanjiv Gokhale, Ph.D., P.E., F. ASCE

### 2010-2011 Enrollment

**Enrollment Undergraduate:**
- Full-time: 6,831
- Part-time: 48
- Total: 6,879

**Graduate and Professional:**
- Full-time: 5,045
- Part-time: 790
- Total: 5,835

Total full-time students: 11,876  
Total part-time students: 838  
Total: 12,714

**Men:** 5,900 (46%)  
**Women:** 6,814 (54%)

**Tuition (2010/2011):** $38,952

### Enrollment by School

- College of Arts & Science: 4,285
- Blair School of Music: 211
- Divinity School: 249
- School of Engineering: 1,327
- Graduate School: 2,228
- Law School: 615
- School of Medicine: 618
- School of Nursing: 882
- Owen Grad Sch of Mangmt: 577
- Peabody College: 1,702
- Unclassified Studies: 27

Total: 12,721
Today’s construction managers are faced with unprecedented challenges in planning, designing and managing the construction process and maintaining the public and private facilities required to meet society’s needs.

**Program Mission:**

The mission of the graduate degree program in Civil Engineering with concentration in Construction Management is to develop future leaders that can understand and solve the broad range of challenges confronting the construction industry and the built environment.
Program Status

- Total number of current students = 35 (Spring 2011)
  - 30 Continuing Students
  - 5 Admitted for Spring 2011
- Total number of students graduated = 72 (since 2006)
  - Table 2
- 100% Employment upon graduation (2010, N= 21)
  - Median salary = $63,000
  - Salary Range = $58,000-$75,000
- 100% Internships
- New Courses
  - CE298: Building Systems and LEED (Fall 2010)
  - CE289: Advanced Project Management (Broadcast – CII, Austin, TX) (Fall 2010)
  - CE299: Building Information Modeling (Spring 2011)
- New course proposed – Fall 2011
  - CE299: Real Estate Development
Degree Requirements

### Typical Plan of Study (16 months)

<table>
<thead>
<tr>
<th>PLAN OF STUDY (M.ENG.)</th>
<th>FALL 2009</th>
<th>SPRING 2010</th>
<th>SUMMER 2010</th>
<th>FALL 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE286 Construction Project</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management (3 cr.), W 9:20-7:50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE288 Scheduling &amp; Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3 cr.), T 4:10-6:50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE291 Construction Materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&amp; Methods (3 cr.), MTR 3:10-6:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE299 Construction Best</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practices (3 cr.), F 12:30-4:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE287 Construction Estimating</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3 cr.), T 4:10-6:50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGM 251 Accounting &amp; Finance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3 cr.), M 3:10-6:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE292 Construction Law &amp; Contracts (3 cr.), W 4:10-7:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE290 Building Systems &amp; LEED  (3 cr.), F 12:30-3:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective 1 (3 cr)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective 2 (3 cr)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEng, Project (0 cr)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 CREDITS</td>
<td>9 CREDITS</td>
<td>3 CREDITS</td>
<td>9 CREDITS</td>
<td></td>
</tr>
</tbody>
</table>

**Required Course**

**Elective**
CE 289: Building Systems & LEED (NEW)

OBJECTIVE:
The “invisible” building systems are critical to the functioning and operation of building facilities. These systems include heating, ventilating, air conditioning and refrigeration (HVAC/R), and water and wastewater systems. Students will develop an understanding and appreciation for the various building system topics including: energy management, mechanical system, indoor air quality, building automation systems, heating, cooling, refrigeration, electrical and electronic controls, and instrumentation. After completion of the course, students will be able to take the LEED Professional Accreditation certification test.

CE 289: Advanced Project Management (NEW)

OBJECTIVE:
This course will discuss the issues in construction, and introduce the best practices defined and developed by CII over the last twentyfive years. To address these subjects, the course covers a substantial amount of material. Preparatory readings will be available via Blackboard. Students are expected to have read this material ahead of the class. Post-class readings and on-line quizzes will be arranged via CII’s website.

By taking this class students will be able to:

- Understand the critical issues in the construction industry;
- Gain the knowledge of CII Best Practices;
- Apply the CII Best Practices to improve project performance.
CE 299: Build Information Modeling (NEW)

OBJECTIVE:

Introduce students to the design and construction industry topic of Building Information Modeling (BIM). The course will help enhance the student’s ability to understand the full range of the aspects of BIM including: BIM on the design side, basic modeling, interoperability, software, project delivery implications, BIM on the construction side, and workflow transformations.

Software used:

Bentley Microstation
Bentley Structural
Ram Structural System
Recruitment

In 2007-08, an estimated 623,805 international students came to the U.S., an increase of 7 percent from previous year.

Symposiums & Workshops
Sanjeev.
Congratulations on a successful conference and thank you for all of the hard work. It was very informative and I enjoyed myself. When I began sending the presentations to different people within our organization, I noticed that David Introcacso’s presentation consisted of only 4 slides. See attached. Do you think we could get the entire presentation? There was a lot of information that I wanted to review.

Thank you again.
Dave

David S. Verner, AIA
Senior Vice-President
SSGIE, Inc.
615-308-4913

Congratulations to you and your team on a great event. We look forward to participating again next year.

RP
Richard Perko
President
Lee Company

Many thanks to both of you and the others for making the workshop a great success! It was a long day but a very enlightening day and I look forward to returning next year.

Having worked in Nashville for forty years has allowed me to meet and/or work with many of the local participants and this was an opportunity to not only learn but also to see many long-time friends. Is it possible to receive a list of the final attendees?

Thanks.
Ed

Ed Houk, AIA
Sr. Vice President
MBR Design, Inc.

Accolades

Subject: Date for 2010 Healthcare Design and Construction Workshop
From: "Berger, Melanie" <Melanie.Berger@parsons.com>
Date: Tue, October 20, 2009 7:20 am
To: sgokhale@vanderbilt.edu
Priority: Normal
Options: View Full Header | View Printable Version

Dr. Gokhale,

Can you please tell me the date for the 2010 Healthcare Design and Construction Workshop? I was out of town for the event this year and want to make sure I have it on my calendar for 2010.

Thank you.

FASONS
521 Pemberton, Grosse Pointe Park, MI 48230
T:313-842-1322 M:313-910-6355
melanie.berger@parsons.com
Vanderbilt University Construction Management Program Presents
Sustainable Buildings: Progress, Practice and Challenges

Tuesday, March 9th, 2010
Jacobs Believed In Me Auditorium, Featheringall Hall, Vanderbilt University

The green building movement continues to grow at an amazing pace despite a down economy. Whether you are involved in new construction or an existing building owner, new opportunities have arisen that can have dramatic effects relating to your bottom line, occupant health and productivity, and other sustainability goals. As Nashville strives to become a sustainability leader in the United States, many still need to increase their awareness of the opportunities and learn how to put them into practice.

Come hear from local and national sustainability leaders who have already incorporated this movement into their designs, construction practices and building operations. This all day forum will include the following presentations and panel discussions:

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td>Welcome and Introduction</td>
</tr>
<tr>
<td>9:15</td>
<td>Keynote</td>
</tr>
<tr>
<td>9:30</td>
<td>Panel Discussion: LEED for Existing Buildings</td>
</tr>
<tr>
<td>10:15</td>
<td>Break</td>
</tr>
</tbody>
</table>
| 10:30 | Panel Discussion: Sustainability Achievement 
| 11:15 | Lunch                                        |
| 11:30 | National and International Trends in Healthcare |
| 12:00 | Lunch                                        |
| 1:00  | Panel Discussion: Vanderbilt University       |
| 1:30  | Break                                        |
| 2:00  | Panel Discussion: Sustainable Building        |
| 2:30  | Break                                        |
| 3:00  | Nashville Green Building Initiatives         |
| 3:15  | Sustainable Building Incentive Programs      |
| 3:45  | Legal Issues in Sustainable Building         |

Sponsored by Department of Civil & Environmental Engineering, School of Engineering, Vanderbilt University

DRAFT (Jan 13, 2010)
Program Committee

Greg Cashion, Smith, Cashion & Orr
Hal Clark, Land Design
Johnny Epstein, Clean Edison
Rose Faggis-Barton, Urban Land Institute Nashville
Sanjiv Gokhale, Department of Civil & Environmental Engineering, Vanderbilt University
Kim Hawke, Hawke Partners
Keith Lion, Campus Planning and Construction Department, Vanderbilt University
Vic McConnell, Smith, Cashion & Orr, Pllc, Co-Chair
Tara Myers, Earl Swenson Associates
Brian Phelps, Hawke Partners
Jamie Qualls, SSRx, Co-chair
Ken Salif, Architectural Energy Corporation
Kathy Sheeley, Hors Construction
Erin Sheffer, SSRx
Rebekah Wright, Crescent Resources
Bill Young, Associated General Contractors of Tennessee

Sustainability Symposium

You replied on 3/16/2010 8:57 AM.

Bryon Olsen [bolsen@hardaway.net]
Sent: Wednesday, March 10, 2010 9:48 AM
To: Gokhale, Sanjiv B

Dr. Gokhale,

I thoroughly enjoyed yesterday’s presentations during the Sustainability Symposium, and wanted to thank you and everyone involved in the planning and execution of the event.

Respectfully,

Bryon Olsen, LEED AP BD+C
Project Manager

Dr. Gokhale:

Excellent conference. Thank you for hosting. Survey attached.

-Dan

Daniel H. Oliver
Enterprise Electric
1300 Fort Negley Blvd.
Nashville, TN 37203
Direct: 615-493-5016
Mobile: 615-429-0201
Office: 615.350.7270 x116