

***May Session 2009, 2010, 2011, 2012***

**CE 4011 Ancient and Modern Structures  
in Italy**

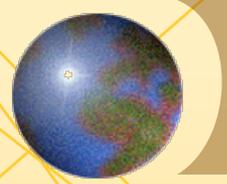
**Professor Roberto Ballarini (U of M)**

**Professor Luigi Biolzi (Politecnico di Milano)**

**Assisted by Adam Pagel or other staff from CSE Dean's  
Office**



UNIVERSITY OF MINNESOTA



# What is the course all about?

All comers were welcomed (including outside CSE), as long as they had a course in physics and calculus.

Holistic approach that focuses on:

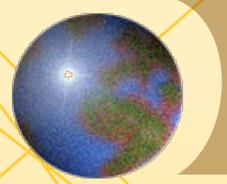
The science and technology of structures and materials.

Historical development.

Role of art, and in particular architecture.

The importance of doing things well demonstrated by everything Italian.

Personal growth and transformation.



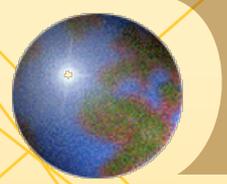
## Where did we go?

Rome  
Cinque Terre  
Pisa  
Florence  
Milan  
Verona  
Venice

(Dolomites)  
(Padova)  
(Orvieto)



Vernazza



# Student Work load

Pre-departure reading. Examples of books read:

*Brunelleschi's Dome by Ross King*

*Dark Water by Robert Clark*

*The Pope's Ceiling by Ross King*

*Structure in Architecture by Mario Salvadori*

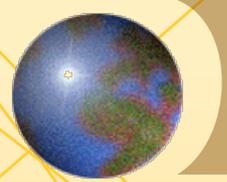
One to two page discovery report on assigned site, written before departure.

Day-by-day journal that includes notes on technical presentations and "classroom" lectures.

Oral presentation of discovery report to the class at site.

Self-defined project on assigned site completed after return to Minneapolis due at the end of the summer.





# Communication with folks back home through daily blog

UNIVERSITY OF MINNESOTA  
Driven to Discover™
myU > One Stop >

Search U of M Web sites

COLLEGE OF Science & Engineering

[Home](#) | [CSE Directory](#) | [Give to CSE](#) | [Student Dashboard](#)

INFORMATION FOR
Why CSE
Departments & Majors
Beyond the Classroom
Research
Future Students
Students
Alumni & Donors

CSE Global Seminars Blogs

---

2013 Global Seminars

- [China 2013](#)
- [India 2013](#)
- [Middle East 2013](#)
- [Scandinavia 2013](#)
- [Switzerland 2013](#)

---

2012 Global Seminars

- [Italy 2012](#)
- [Middle East 2012](#)
- [Northern Europe 2012](#)

---

2011 Global Seminars

- [China 2011](#)
- [Italy 2011](#)
- [Scandinavia 2011](#)
- [Switzerland 2011](#)

---

2010 Global Seminars

- [Central Europe 2010](#)

## Italy 2012

---

Jun 1, 12 [Free day in the city](#)

Today was a free day for us to venture into the city. Some students took this opportunity to get some rest after 3 weeks of traveling. I decided to visit the Pescaria (Fish Market) and the Erberia (greengrocer market) early in the morning.

[Read more...](#)

| [No Comments](#)

---

May 31, 12 [Photo Blog Entry 2: Glass, Lace and Risotto](#)

Today, we went on an island hopping trip through the islands in the veneto. The cemetery in San Michele was serene and beautiful. The visit to Murano was incredible, the glass pieces they make are some of the most beautiful works of art in the world. Burano is well known for their laces and the brightly coloured homes.

[Read more...](#)

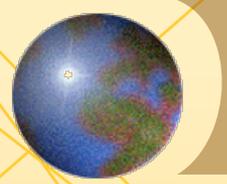
| [No Comments](#)

---

May 31, 12 [Venice Day 2](#)

Today was one of our first free days. We all got a chance to sleep in, and wander the city as we pleased. Some of us went to popular museums like the Acedemia, others went shopping for gifts for their friends and family.



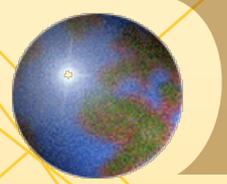


# What makes this course special and unique

Unprecedented access to sites, including Aula Paolo VI (Nervi), as permitted by the Pope's office through the Vicar of the Vatican.

Hearing it from the horse's mouth; experts that work/research sites provide lectures (for example Prof. Bartoli on his work on health monitoring and analyses of Brunelleschi's dome, and engineers and architects that designed/built new structures such as Palazzo Lombardia in Milan, the Calatrava Bridge in Venice, and the MOSE Gates in Venice).

Demanding and high level short course in materials, structural analysis and mechanics (~15 lecture hours).



Visits to Italian universities (Politecnico di Milano, Università di Roma, Università di Pisa, University di Firenze, Università di Venezia)

Extraordinary tour guides for special sites, including Vatican Museums, L'Accademia and others.

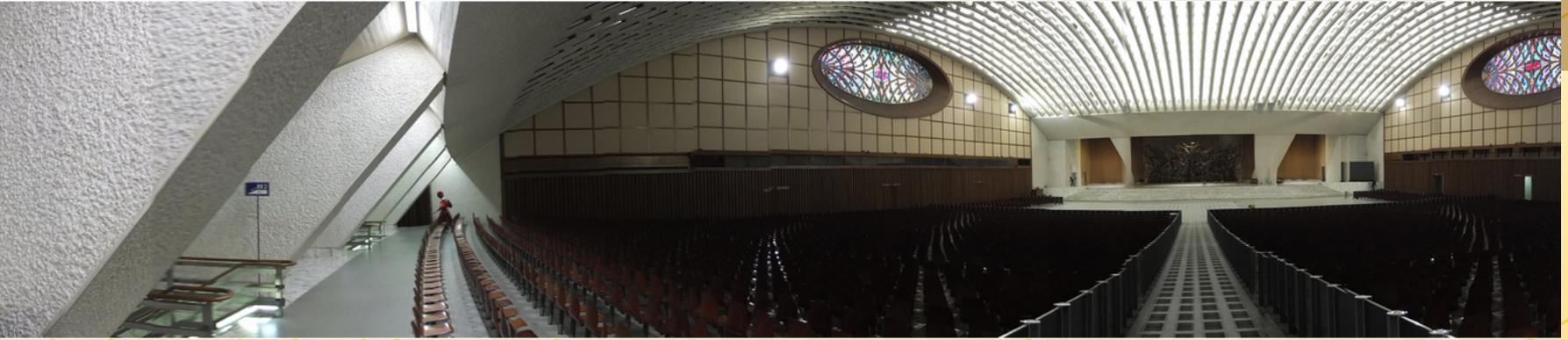
Sufficient free time to explore cities.

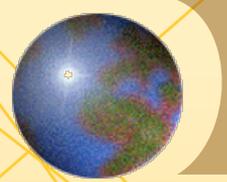
Group dinner.

Small group lunches and dinners with me in all cities.

Small group tours of cities led by me.

# Aula Paolo VI (Nervi), Rome

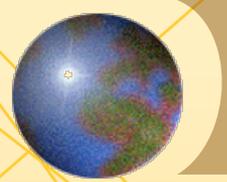




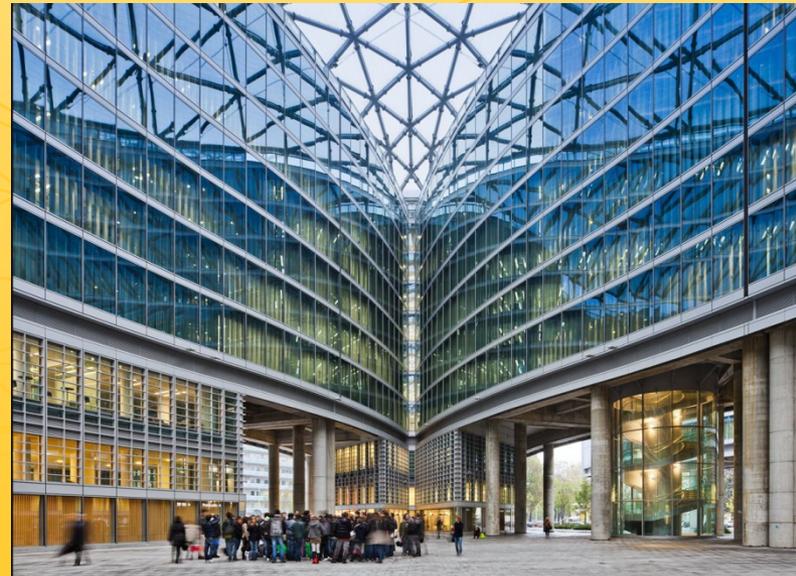
La Resurrezione by Pericle Fazzini

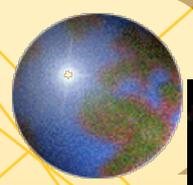
Pope's office





Palazzo Lombardia  
Milan

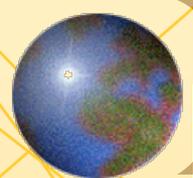




Private tours of construction sites!!!!



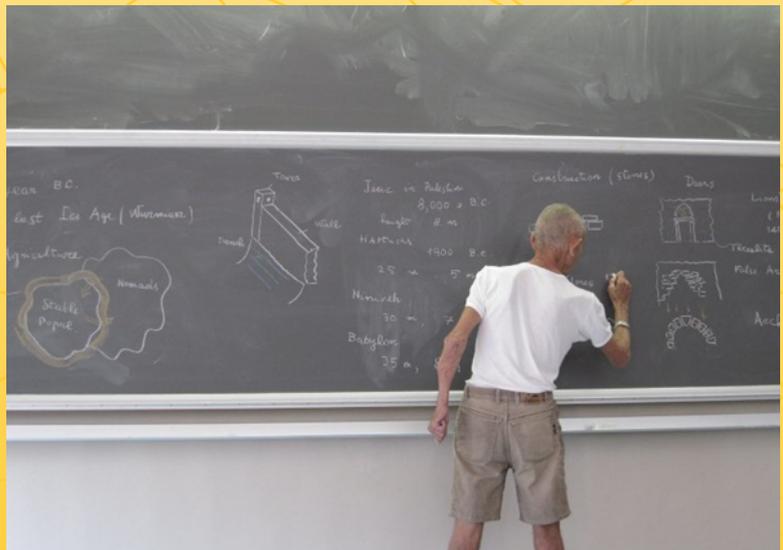
Presentation of discovery report



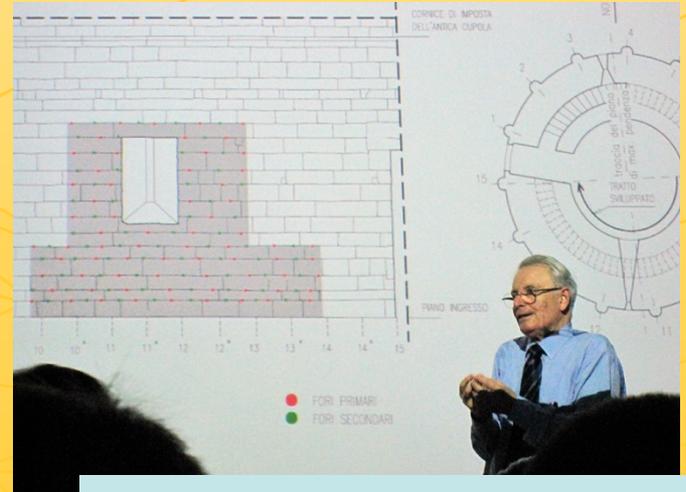
Hotel or university classrooms



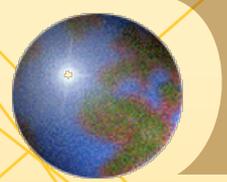
Outdoor classroom Venice



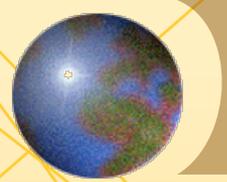
Professor Piero Villagio  
Universita di Pisa, History of Masonry Structures



Pisa tower seminar by Prof. Raffaello Bartelletti



Lecture on Venice Lagoon engineering projects by Maria Teresa Brotto, Head of engineering department of Consorzio Venezia Nuova



Seminar by Professor Enzo Siviero on the design and construction of the Calatrava Bridge in Venice



My disciples rate the bridge after my arguments against it

# Daily "field trips" to sites



Via Appia Antica, Rome

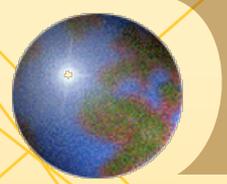


Pallazzetto dello Sport, Rome





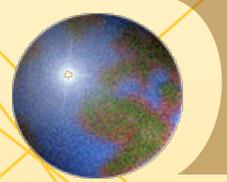
Private tour of glass research institute in Murano, Venice



# What I Have Learned (the sad parts)

- Students exhibit adolescent behavior: (lack sense of responsibility, do not pay attention, instructions must be repeated lots of times; therefore pre-departure orientations were of little value).
- Vulgar drinking culture is not left behind and on occasions led to negative results such as castigation by hotel management.
- Bad behavior can be mitigate only through penalties; this is very sad.
- Students hesitant to mingle with locals.





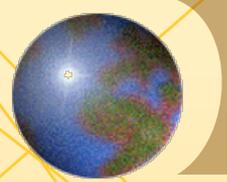
# What I Have Learned (the good parts)

Students are wonderful, enthusiastic and appreciative.

They are indeed transformed.

They think differently about the world and about themselves; therefore success!.





**“The “Italy course” is what encouraged me to go study abroad and now I live/work in Ireland. None of the American students that I’ve met over here have regretted their decision to study abroad, whether it be for a semester or a whole degree program.”**

***Brian Ackerman, AEM, 2009 edition of course***

**Elizabeth Manning (CE, 2009 Edition), returned to Italy and Portugal as a Erasmus Mundi Fellow, received her MS in Historic Structures Preservation, and is currently a Ph.D. student in Portugal.**

