

A watercolor illustration of the Roebling Suspension Bridge in Cincinnati, Ohio, spanning the Ohio River. The bridge is shown in a light blue and grey tone, with its two massive stone towers and suspension cables clearly visible. In the foreground, a large ship is depicted, also in a light blue and grey tone, with the word 'WELCOME' visible on its side. The background is a plain white color.

An Overview of the REU Site, Expectations and Work

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University of Cincinnati

June 23, 2008

PRESESENTATION OUTLINE

- **Introductions**
- **Project Office and Contact Information**
- **Project Title and Participants**
- **REU Site Activities**
- **Laboratory and Office Usage and Safety Issues**
- **Overview of 2008 REU Research Projects**

PROJECT OFFICE and CONTACT INFORMATION

▪ Project Office

- Baldwin Hall 756

▪ Project Director

- Dr. Anant R. Kukreti
- Office: ERC 701F
- Phone: 513-556-4105
- E-Mail: anant.kukreti@uc.edu

▪ General Help Contact

- Ms. Christine Johnson (staff)
- Office: Baldwin Hall 665 & ERC 701
- Phone: 513-556-1164
- E-Mail: christine.johnson@uc.edu

▪ Financial Reimbursement Contact

- Mr. Tom Davis
- Office: Baldwin Hall 765
- Phone: 513-556-3630
- E-Mail: tom.davis@uc.edu

Project Co-Director

Dr. Gian A. Rassati
Office: Rhodes Hall 797B
Phone: 513-556-3696
E-Mail: gian.rassati@uc.edu

Computer Help

Mr. Geoff Kramer
Office: Baldwin Hall 765
Phone: 216-244-6792 (Cell)
E-Mail: Geoff.Kramer@gmail.com

PROJECT TITLES AND PARTICIPANTS

- **Project # 1: “Study of the Ductility and Deformation of High Strength Bolts in Tension”**
 - ◆ **Student Participants**
 - ◆ Jason Riharb, Senior, Civil Engineering, The Citadel
 - ◆ Elizabeth Thesing, Sophomore, Chemical Engineering, University of Cincinnati
 - ◆ Emily Meiser, Sophomore, Chemical Engineering, University of Cincinnati
 - ◆ **Faculty Mentors**
 - ◆ Dr. Gian Rassati, gian.rassati@uc.edu, 513-556-3696, Rhodes Hall 797B
 - ◆ **Graduate Student Mentor**
 - ◆ Mr. Craig Schrader, schradca@email.uc.edu, 513-310-4130

PROJECT TITLES AND PARTICIPANTS

■ Project # 2: “Measurement of Slip in Slip-Critical Connections with Different Specification Holes”

◆ Student Participants

- ◆ Maria Nunez, Senior, Architectural Engineering, Texas A&M University-Kingsville
- ◆ Maksim Yegorov, Sophomore, Civil Engineering, San Jose State University
- ◆ Ian McElhone, Sophomore, Civil Engineering, University of Pittsburgh

◆ Faculty Mentors

- ◆ Dr. James Swanson, James.Swanson@uc.edu, (513)-556-3774, 796 Rhodes Hall

◆ Graduate Student Mentor

- ◆ Mr. Elie G. Hantouche, Office - 542 Baldwin, hantoueg@email.uc.edu, 513-240-8848

PROJECT TITLES AND PARTICIPANTS

■ Project # 3: “Parametric Flexural Evaluation of Concrete Members Reinforced with High-Strength Reinforcement”

◆ Student Participants

- ◆ Huy Ta, Junior, Material Science Engineering, University of Washington
- ◆ Heath Zumstein, Pre-Junior, Civil Engineering, University of Cincinnati
- ◆ Brittany Williams, Sophomore, Mechanical Engineering, University of Cincinnati

◆ Faculty Mentors

- ◆ Dr. Bahram Shahrooz, Bahram.Shahrooz@uc.edu, (513)-556-3677, 765C Baldwin Hall

◆ Graduate Student Mentor

- ◆ Ms. Elizabeth (Liz) Ward, Office- - ERC 727, wardel@email.uc.edu, 765-427-6872

REU Site Activities

- **General Project Schedule**
- **Alternative Day Meetings**
- **Weekly Group Leaders and Responsibilities**
- **Reports and Presentations**
- **Awards**
- **Seminars**
- **Field Trip**
- **Evaluations from Each Participant**
- **Final Meeting**
- **Activities Beyond Seminar**

REU Site Activities:

General Project Schedule

- **Week One and Part of Week Two**
 - ◆ Identifying goals and the research tasks
 - ◆ Plan the time schedule
 - ◆ Conduct literature survey
 - ◆ Seminars on Research Project & Background Information
 - ◆ Training on Use of Lab Facilities & Research Tools:
 - ◆ Use of equipment
 - ◆ Erecting test set-up
 - ◆ Testing procedure
 - ◆ Use of data acquisition and software
 - ◆ Preparation of some test specimens
 - ◆ Regression techniques for mathematical modeling
 - ◆ Photographic recording of test results

REU Site Activities:

General Project Schedule (Continued)

■ Week Two to Seven

- ◆ Literature search, research training, and equipment training to continue
- ◆ Fabricating specimens
- ◆ Testing
- ◆ Analyzing test results
- ◆ Generalizations of results
- ◆ Interim report presentations

■ Week Eight

- ◆ Final report preparation
- ◆ Final presentations

REU Site Activities:

Alternative Day Meetings

■ Place

- ◆ Civil and Environmental Engineering Conference Room, Rhodes Hall 701

■ Time

- ◆ 8:00 a.m. sharp (refer to calendar for days scheduled)
- ◆ Attendance mandatory, no late attendance
- ◆ All Participants, Graduate Research Assistants, and Faculty Mentors (if in town) to attend

■ Group Leader for the week to present

- ◆ Report progress over the last two days
- ◆ Report work planned for the next two days
- ◆ Ask questions, if any
- ◆ Discussion pursues

REU Site Activities:

Weekly Group Leaders and Responsibilities

- **Group Leader for week one**
 - ◆ **First participant in the list**
- **Group Leader will rotate each week**
- **Group Leader for the week will maintain a daily log of activities in a "Log Book"**
- **Entries for each day must be written by the end of the day**
- **Next day morning show to Graduate Research Assistant and get signature**

REU Site Activities:

Reports and Presentations

■ Project Planning Report

- ◆ Each group presents a report on the third day (June 25) during the 8:30 a.m. meeting, which should include
 - ◆ Project Goal and Objectives
 - ◆ Project Research Tasks
 - ◆ Project Time Schedule
 - ◆ Typed Report and a PowerPoint Presentation

REU Site Activities: Reports and Presentations (Continued)

■ Interim Progress Reports

- ◆ "Bi-weekly Progress Reports" due on alternative Thursdays (July 3, 17, 31)
- ◆ Typed report and a PowerPoint presentation: starts at 2:30 p.m. and no morning meeting this day
- ◆ Each group member to participate in the presentation
- ◆ Social hour with refreshments follows

REU Site Activities:

Reports and Presentations (Continued)

■ Final Technical Research Paper Presentation and Poster

- ◆ Draft due on Friday, August 8 by 3:30 p.m., returned Monday, August 11 at 8:30 a.m.
- ◆ Format instructions supplied **must** be used
- ◆ Three copies due on Tuesday, August 12 by 10:00 a.m. for distribution to the Judges
- ◆ Poster and oral presentation to external judges on Thursday, August 14 starts at 8:00 a.m. sharp
 - ◆ 45 minutes presentation
 - ◆ 15 minutes of questions and answers
- ◆ Lunch and refreshments served

REU Site Activities: **Awards**

- **Certificate for each participant**
- **“Best Project” selected by Judges**

REU Site Activities: Seminars

- **Seven Special Seminars - a designated group will prepare a write-up on each experience**

- ◆ **“Ethics in Research” Seminar**

- ◆ Presenter: Dr. Dan Oerther, Head & Professor, Department of Civil and Environmental Engineering, UC
- ◆ Date: June 25
- ◆ Time: 10:00 a.m. to noon
- ◆ Venue: 701 Rhodes Hall

- ◆ **“Technical Writing & Presentation Workshop”**

- ◆ Presenter: Dr. Ron Millard, Professor, Department of Pharmacology & Cell Biophysics, UC
- ◆ Date: June 26
- ◆ Time: 8:00 to 11:00 a.m.
- ◆ Venue: 850D Baldwin Hall

- ◆ **“On-Line Search Using the Library Facilities” Seminar**

- ◆ Presenter: Dr. Dorothy Byers, College of Engineering Library, UC
- ◆ Date: June 27
- ◆ Time: 8:00 to 10:00 a.m.
- ◆ Venue: 850D Baldwin Hall

REU Site Activities: Seminars

■ Seven Seminars (continued)

◆ Photography Seminar

- ◆ Presenter: Mr. Kim Simmons, Department of Fine Arts (Photography), UC
- ◆ Date: June 27
- ◆ Time: 1:00 to 5:00 p.m.
- ◆ Venue: 641 Baldwin Hall

◆ “Poster Preparation Training 1: Basics on Poster Creation”

- ◆ Presenter: Ms. Andrea Burrows, NSF STEP Grant Coordinator, UC
- ◆ Date: July 7
- ◆ Time: 10:00 a.m. to noon
- ◆ Venue: 860D Baldwin Hall

◆ Effective Public Speaking and Technical Presentation

- ◆ Presenter: Ms. Amber Erickson, Adjunct Instructor, Department of Communication, UC
- ◆ Date: July 10
- ◆ Time: 8:30 a.m. to noon
- ◆ Venue: 701 Rhodes Hall

◆ “Poster Preparation Training 2: Presentation of Sample Poster by Groups”

- ◆ Presenter: Ms. Andrea Burrows, NSF STEP Grant Coordinator, UC
- ◆ Date: July 21
- ◆ Time: 11:00 a.m. to noon
- ◆ Venue: 860D Baldwin Hall

REU Site Activities:

Field Trips

- **Two field trips** related to the main theme for the REU Site
- **Dates:** July 23 and July 30
- **Time:** 1:00 a.m. to 5:00 p.m. for first field trip. The second field trip will take most of the day.
- Take **hard hats** to field trips and wear **closed toe shoes** and full length pants
- A designated group will prepare a write-up on the experience

REU Site Activities:

Evaluations From Each Participant

- **Pre-Evaluation:** to evaluate prior perceptions regarding research – due before students arrive
- **REU Site Satisfaction Questionnaire:** to evaluate quality of facilities, activities, and guidance provided - to be completed August 14 at 2:00 pm
- **Post-Evaluation:** to evaluate research skills acquired, mentorship provided, and future plans – to be completed on August 14 at 2:00 p.m.

REU Site Activities:

Final Project Meeting

- **Final meeting on Thursday, August 14 at 2:00 to 4:00 p.m.**
- **Materials requested submitted**
- **Post-REU Survey Completed**
- **Cleaning and Wrap-Up**
- **Project ends at 4:00 p.m.**

REU Site Activities: Activities Beyond Summer

- A **presentation** at your **school**, e.g., at an ASCE Student Chapter Meeting
- **Letter** from faculty advisor documenting this activity sent to Dr. Kukreti
- UC students must present a **poster** in the Spring (in May-June) **Undergraduate Poster Presentation Day**
- Submit a **paper** to a student paper presentation **competition and/or conference** – this is a requirement
- Complete Online **Tracking Form** Annually in April

Laboratory and Office Usage and Safety

■ Attire

- ◆ Closed toe shoes
- ◆ Full length pants
- ◆ Safety glasses when needed
- ◆ Hard hats when needed

■ Equipment training and usage

- ◆ Provided by laboratory technician and/or Graduate Research Assistant prior to usage
- ◆ No equipment should be used without receiving training
- ◆ All tools borrowed should be returned before the end of the day

Laboratory and Office Usage and Safety Issues (Continued)

- **Never work alone when testing**

- **Use of Project Office**

- ◆ Project Office should be kept clean on a daily basis - no exceptions
- ◆ Lock the room after leaving – no exceptions

- **Copy Machine Usage**

- ◆ Use department Xerox machine in CEE Office, Baldwin Hall, Room 765
- ◆ Contact Michelle in CEE Office to get project code number

OVERVIEW OF 2008 REU RESEARCH PROJECTS

- ❑ “Study of the Ductility and Deformation of High Strength in Tension” – presentation by **Craig Schrader**
- ❑ “Measurement of Slip in Slip-Critical Connections with Different Specification Holes” – presentation by **Elie Hantouche**
- ❑ “Parametric Flexural Evaluation of Concrete Members Reinforced with High-Strength Reinforcement” – presentation by **Liz Ward**

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