



UNIVERSITY OF ROCHESTER TO OFFER EXCLUSIVE COURSE ON ROMAN ENGINEERING IN 2003

**SUMMER COURSE WILL INCLUDE ROMAN
CONCRETE...AND A FIELD TRIP TO ROME!**



How could the same society that placed such a high value on literary and rhetorical studies come to develop the murderous games that took place at the Colosseum? This and other questions will be answered in an in-depth and on-site study of the Roman world, its culture, and its feats of engineering.

University of Rochester (N.Y.) professors Renato Perucchio, Ph.D., and Kathryn Argetsinger, Ph.D., have teamed up to design and teach a summer course for students in engineering and applied science; in the humanities with a strong interest in classical history, archaeology, and architecture; and in the history of engineering and technology. The combined course, with parts called "Engineering in the Roman World" and "The World of Rome," is proposed for the 2003 summer semester, and is open to anyone—not just University of Rochester students!

ENGINEERING AND HUMANITIES

In the engineering studies portion of the course, students will study Roman engineering, focused primarily on civil engineering structures, but it will also include topics in mechanics, hydraulics, and engineering materials. The course includes several case studies and culminates with an extended field trip to major

archaeological sites, monuments, and museums in Rome.

The cultural studies portion examines Rome's high culture, which underlay the building of the great libraries, theaters, and political structures. It is intended to help students place ancient structures in their social and historical context. Included will be a careful study of the

Roman familia (family or household), an institution that served as a foundation for Roman political, economic, and religious life in the most fundamental ways.

While in Rome, students will visit the Museum of Roman Civilization, the Imperial Fora (specifically, the Basilica Ulpia and the Trajan column), the Republican Forum, the Palatine, the Flavian Amphitheater (the Colosseum), the Pantheon, the baths of Caracalla and Diocletian, the bridges over the Tiber River, aqueducts at Porta Maggiore, the Aurelian Walls and city gates, the Ostia Antica, Trajan's harbor, Roman boats at Fiumicino, and the Basilica of Saint Peter outside the walls.

EXPLORING THE GENIUS OF ROME

"Engineering in the Roman World" will cover such topics as engineers and engineering in Roman society; introduction to mechanics, strength of materials, and hydraulics; engineering materials, including Roman concrete; power and energy sources; development of structural form in antiquity; building and manufacturing techniques; construction machines; war implements and siege machines; bridges; aqueducts; roads; public, private, and ceremonial buildings; domes; ships; harbors; system

engineering in Roman times; and the achievements of Roman engineers.

"The World of Rome" will explore such topics as The Idea of a City—City Foundation in the Roman World; Roman Foundation Myths—Aeneas, Romulus, and the Heroes of Early Rome; The Roman Family; The Patronage System; Rome Becomes an Empire—External Expansion, Internal Crisis; Rome Restored—The Achievement of Augustus; The Emperor in the Roman World—The Development of the Principate; Roman Religion and the Development of the Emperor Cult; Roman Education—Literature, Rhetoric, and Law; and The Roman Games—A Civilization Based on Cruelty.

The course is self-contained and assumes no previous background in engineering beyond high-school level physics and algebra. Students will complete course projects involving design and analysis, problem sets, and the historical analysis of primary source materials (written documents, letters, and inscriptions) from the ancient world. University of Rochester students receive four course credits; others, please inquire.

For a list of necessary books and other reading materials, please contact Dr. Perucchio or Dr. Argetsinger.

—By **Stephani Miller**, *CONSTRUCTOR'S* former editorial assistant

FOR MORE INFORMATION

Please contact Renato Perucchio, Ph.D., professor of mechanical engineering and biomedical engineering, University of Rochester, Rochester, N.Y., at rlp@me.rochester.edu.

Or contact Kathryn Argetsinger, Ph.D., senior lecturer in classics, Department of Religion and Classics, University of Rochester, N.Y., at karg@mail.rochester.edu.