Study Abroad

Summer 2022

Paths of Development in

Mathematics and Physics

at the time of the

French Revolution

MATH 395 or PHYS 395

When the French Academy of Sciences was shut down by the Revolutionary Convention in 1793, only a few scientists survived, one of whom was Joseph-Louis Lagrange. Together with Euler, Lagrange developed a new calculus, called variational calculus, which not only opened the door for new physics, but it permitted the reformulation of existing theory, such as Newtonian mechanics, in a more elegant manner. Fourier laid the foundations for an extremely rich area of research in mathematics that carries his name, Fourier Analysis. In this seminar, we will follow the paths in the history of mathematics leading to the development of variational calculus, differential equations, and approximation theory based on works of D'Alembert, Euler, Fourier, Lagrange, and Laplace. We will start the course at CNU, continue it in Paris, and complete it in Great Britain, first in Edinburgh and then in Cambridge.

Travel Dates: June 2021 (tentatively June 6 - June 26)
Projected Cost: $4000 plus tuition and personal expenses
Credit: 3 hours MATH or PHYS (300-level major elective)

First Information Meeting: (TBA, September XX, 2021)
If you are thinking about joining us, attend the meeting!And please see or contact Dr. Dobrescu or Dr. Heddle,

especially if you can't make the first meeting.
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