

**Advanced Topics in Marine Biology:
HYDROTHERMAL VENT BIOLOGY AND ECOLOGY**

BIOLOGY 508 **4 credits**

Fall 2012

Instructor: Craig L. Moyer
Email: cmoyer@hydro.biol.wvu.edu
Office Hours: TBA and by Appt., BI 406

Class Meetings: Location BI 415, T/R 10am - 11:50am.

Mandatory Text:

- Special Issue on Oceanic Spreading Center Processes. Oceanography 25(1): March, 2012 issue. Available through course website.

- Note: Updated information & reading assignments to be posted on the class web site:
<http://fire.biol.wvu.edu/cmoyer/cmoyer.courses.html>

Topics Covered Relate to Multiple Fields of Study in Marine Sciences:

- Deep-Sea Hydrothermal Vents
- Biogeochemistry Interactions
- Oceanography
- Marine Biology
- Invertebrate Zoology
- Microbiology
- Biogeography

Course Objectives:

- We will examine the text in great detail as well as classic and recent seminal papers on hydrothermal vent community structure and diversity. We will compare and contrast the classic morphologically based systematics with modern molecular phylogeny, explore the potential for phenotypic plasticity over strong physical gradients, and examine the multiple options regarding the metabolic menu.

Format:

- All students will read and review the chapters assigned from the text prior to the class meeting on each topic covered. Generally this will be covered during the first hour of our meetings.

- All students will read and review the papers that are assigned and these will generally be covered during the second hour of our meetings.