



All Things Ignatian



Heartland Jesuit Physics Retreat

Presented by the Creighton Physics Department

Bridging Institutional Boundaries

Since 2003, the Creighton Physics Department has organized an annual meeting of physics departments from Marquette, Loyola of Chicago, and Creighton to consider issues particular to physics departments at Jesuit universities. Representatives from St. Louis University and Rockhurst are also regular participants. Normally about 20 faculty members attend. Retreats have been held in central locations (Dubuque, IA, Sinsinawa, WI, Wyoming, IA) with the most recent in Woodstock, IL. Collaboration among the schools has improved. The meetings have resulted in the development of common seminars shared over the internet. More significantly it initiated a series of voluntary departmental reviews. As these reviews were not mandated by the administration and were carried out by individuals who already were aware of issues in the department, they were able to confront issues that might remain hidden to an outsider.



Evaluation of astronomy course content during a Wyoming, IA retreat. Thomas McShane, SJ and Jack Gabel from Creighton are shown with Asim Gangopadhyaya from Loyola, Chris Stockdale from Marquette and Guy Consolmagno, SJ from the Vatican Observatory

Cura Personalis

What distinguishes the physics departments at Jesuit universities is less what we teach and more how we teach. We seek to limit course lectures to a size where the faculty can know every student's name. We use different teaching styles and content adapted to the various groups that we serve. Specialized lab experiences are some of the most effective environments for small group learning. We seek to involve our majors in faculty research early in their course of studies (often as freshmen). This builds collegial relationships that endure well beyond graduation. We seek to allocate departmental space in ways that promote student-faculty interaction. The personal attention that each student receives in an environment of open doors promotes the type of interaction that builds both life-long learning skills and life-long relationships. We believe that our students are capable of so much more if we work in an environment of trust.



Fr. Michael Morrison, former Creighton President, facilitates a discussion on the distinguishing characteristics of a science department in an Jesuit university. Patricia Soto from Creighton and Gordon Ramsey from Loyola of Chicago take notes in the background.

Scholarship of Teaching and Learning

We strive to give our students the best possible experience during their four years at a Jesuit institution. We view learning as a spiral both in terms of the way the principles of physics are presented to the students and how we as instructors use observation, feedback and assessment to enhance our programs. We seek to identify student misconceptions and address them using a combination of best practices and innovation. The retreat gives us an opportunity to share our experiences and to learn from theirs. This work does not go unrecognized. In the last five years, both Creighton and Loyola of Chicago have served as host institutions for the American Association of Physics Teachers national meeting.



A small group discussion in Sinsinawa, WI on developing project labs suitable for teams of introductory physics students. Janet Seger and Brad Walters from Creighton share their ideas with Mike Politano and Mellissa Vigil from Marquette and Asim Gangopadhyaya from Loyola of Chicago.

Sponsored by the Creighton University Jesuit Community, in association with the Degelman Center for Ignatian Spirituality.