About MTech’s Undergraduate Research Program (URP)

- Established in 1996
- Purpose: Give undergraduates the opportunity to do faculty-mentored research, enriching their college experience, reinforcing classroom learning, improving retention in the major, and exposing them to grad school opportunities
- Faculty incentives: funding for supplies; small stipend; preliminary data for proposals; broader impacts
- All students and mentors receive Responsible Research training

Impact

- About 1000 students/projects since 1997
  - ~80% one project; ~20% did more
  - Many majors included
  - >13% go to grad school, vs 1% average
- NEW: 11 Public Health Internships in 2014-15 made possible by MT-INBRE: many involved community partnership
- Students most valued: challenging & fun (86%); faculty mentorship (75%); understand role of research in the field (70%)
- In the words of an alumnus: “The URP program was very beneficial for my education. It was very challenging and prepared me for my career where you are given tasks that don’t always have a clear cut answer. It also helped with my presentation and writing skills.”
- Many publications & presentations, with student and faculty coauthors
  - Mary MacLaughlin, Geological Engineering faculty member and previous URP Committee Chairperson received the 2014 GEO/CUR Undergraduate Research Mentor Award

URP Process

- Multidisciplinary Faculty URP Committee
- Invites proposals in spring
- Reviews proposals and selects awardees: URP, SURF, PHI, RAMP
- Number determined by budget available
- Oversees projects; provides feedback
- Program administered by Research Office
- Also organizes training & workshops
- SURF workshops on RCR; research design, statistics & communicating science; grad school; networking; presentations & posters

Types of URP Projects

- Traditional URP: Academic-year project
  - Student(s) writes proposal.
  - Scholarship of $1,500 for year
  - Student enrolls for URP credit(s)
  - Oral presentation at Montana Academy of Sciences meeting (April)
- SURF: Summer Undergraduate Research Fellowship (2011-present)
  - Faculty writes proposal
  - Half-time or full-time for 9-10 weeks
  - Student paid $4000 (FT); $2000 (PT)
  - Biweekly lunch/workshops for all
  - On-campus poster symposium in August
- Public Health Internships (PHI)
  - New in 2014-15; MT-INBRE funded
  - Similar to URP & SURF
  - Project is an internship in public health, with faculty or community mentor
- RAMP: Research Assistantship Mentorship Program (2011-present)
  - Designed for inexperienced students
  - Faculty writes proposal, for a project a team of freshmen/sophomores would do during academic year.
  - Student scholarships of $500

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