Call for Papers: Norse Scientist

Final Submission Deadline: 15 Jan 2004 (firm)
Scheduled Publication Date: 1 Apr 2004
Web Version: 1 Jun 2004

Beginning in 2003, departments in the sciences and the Department of Literature & Language have collaborated to publish a new journal of student science writing, the Norse Scientist, to be printed each year by 1 April. We anticipate publishing around 12 student papers, depending upon length, to showcase student work in the sciences at the Celebration of Student Research. Although the final submission deadline is 15 January, faculty advisors are encouraged to submit their students’ work ASAP BEFORE the deadline.

The Norse Scientist gives preference to papers that describe already completed and/or presented research; for instance, work presented at KAS and other meetings, or as Greaves Summer Fellowship reports; however, other excellent student research reports will also be considered.

Papers must be based primarily on work completed by undergraduate students. Consequently, students must be listed as first authors, although faculty may be listed as secondary authors, or preferably as faculty mentors. Papers based upon research that received support from Greaves Summer Fellowships, CINSAM Fellowships, or other university-sponsored sources must be acknowledged. Publishing student work in the Norse Scientist does not preclude its publication elsewhere. Prior to submitting a paper, faculty advisors and student authors should familiarize themselves thoroughly with the Norse Scientist General Guidelines for Authors, available on request. Citations should conform to current edition of the CBE style guide.

Papers should be submitted to Dr. Miriam Steinitz-Kannan (Biology). Papers selected for publication will be forwarded to Dr. Roxanne Kent-Drury (Literature & Language). Papers will then be copy- and format-edited by undergraduate editors under the supervision of professional writing faculty in the Department of Literature and Language. Prior to publication, student authors and their faculty advisors will receive proof copies for their review. Strict adherence to deadlines must be observed to ensure that papers can be included and that the Norse Scientist is published on schedule.

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About This Issue

Undergraduate Research in the Sciences at Northern Kentucky University:
An Integrated Approach to Hands-on Learning.

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The Norse Scientist was conceived in June 2002 following the national convention of Biological Sciences Honor Society (Beta Beta Beta) in San Antonio, Texas, where 15 NKU undergraduates presented their research. Competing with students from all 50 states and Puerto Rico, NKU students brought home five awards, including the 1st place Brooks Award for best oral presentation and the 1st place Johnson Award for best poster presentation. This was the 9th year in a row NKU students had won research awards at Tri Beta meetings, and no permanent public record existed to recognize much of this award winning research. The students involved in research had not only presented at Tri Beta and other national and local meetings, but also had documented their research in Greaves undergraduate fellowship reports, yet these were not easily available even to members of the NKU community. The need for an in-house science publication to showcase undergraduate research on campus, as well as to help students prepare their manuscripts for scientific journals, appeared obvious.

Northern Kentucky University’s demonstrated record of excellence in the sciences, and in particular the involvement of undergraduate students in research, played an important role in the Kentucky Council for Post-Secondary Education’s creation in 1999 of the Center for Integrative Natural Science and Mathematics (CINSAM) as one of Kentucky’s “Centers of Excellence.” Founded in 1968, NKU has an established tradition of long term commitment to undergraduate involvement in research in the Sciences. Students could work on reconstructing climatic histories of tropical regions, using lake cores from the Amazon Basin or the Galapagos Islands, or they could observe mating behaviors of cicadas in New Mexico’s deserts. They could travel to Costa Rica to study the role of extrafloral nectarines in attracting pollinators to Haliconia or study the impact of zebra mussels on the diatom communities of the Ohio River in our own backyard.

With the creation of CINSAM the opportunities for NKU’s student involvement in undergraduate research multiplied. CINSAM expanded the science and mathematics faculty by bringing to campus new professors committed to interdisciplinary undergraduate research. CINSAM funded projects proposed by both the new and established faculty and included in all those projects funding for undergraduate research stipends, complementing the “Greaves Undergraduate Summer Fellowships” program. In 1999, the year CINSAM began, a Greaves fellowship funded NKU’s first undergraduate interdisciplinary research team, a study of zebra mussel grazing on the algae community of experimental mesocosms in the Ohio River. The investigating team included a biology student (who worked with algae), a chemistry student (who monitored nutrient levels), and a statistics student (who helped set up the experiment and analyze the data). Other interdisciplinary projects followed. Students presenting such topics as “Optimizing Drinking Water Treatment Using
Neural Networks” have won recent awards at undergraduate research competitions. These and other papers are provided in this first issue of the Norse Scientist.

Science students and faculty at NKU welcomed the Fall 2002 term at a brand new, state of the art science building. Unlike science buildings at most universities, the science departments (Biological Sciences, Chemistry, Physics, and Geology) are not isolated on their own floors or building sections, and faculty from different departments share teaching and research space. We have an ideal environment to encourage more undergraduate students to work on interdisciplinary research projects. At the same time, many projects in science and mathematics continue to focus within a given discipline.

The Norse Scientist has been designed, in the spirit of CINSAM, to publish papers in all the disciplines in the Sciences and Mathematics. CINSAM helps sponsors the annual “Celebration of Undergraduate Research and Creative Achievement” in April. We are featuring in the first issue of the Norse Scientist many of the Science projects being presented at this year’s “Celebration”; consequently, we are timing this publication to closely coincide with this year’s Celebration of Undergraduate Research and Creative Achievement.

The publication of this journal takes the meaning of “interdisciplinary collaboration” further than that of the mission of CINSAM. This year, the journal is made possible by the efforts of student editors from the department of Literature and Language, Vanessa Barth, Monica LaFollette, and Holly Phillips, under the direction of faculty members Roxanne Kent-Drury and Darlene Hollon. Future editions will be edited with the help of students in technical writing and editing courses. Finally, John W. Thieret, Professor Emeritus of Biological Sciences, helped edit many of the papers in this journal.