University of North Florida Foundation

FOUNDATION BOARD INITIATIVES PROPOSAL
(Maximum request $15,000)

Project Title: Integrated Math and Science Camp for High Achieving Middle School Students

Date: 9-24-2010

Department: Mathematics and Statistics

Complete the following pages:

Page

2. Part I. Project Plan and Supporting Data: Project synopsis, proposal statement, objectives, expected outcomes or benefit(s), project schedule, and evaluation. Additional supporting data may be attached.

3. Part II. Project Detail Budget/Narrative: Personnel services, contractual services, expenses, operating capital outlay (OCO) (e.g. cost of equipment $1,000+).)

4. Part III. Semi-Annual Progress Reports: Submit narrative within 30 days of the end of each calendar and fiscal year to Academic Affairs with copies to Institutional Advancement and Foundation Accounting.

5. Part IV. Final Narrative Report: Submit a final report of chronological history and outcome of the project within 30 days of the completion of the project to Academic Affairs with copies to Institutional Advancement and Foundation Accounting.

Supplemental Questions (Required)

1. How many UNF students (specify undergrad and grad) will be involved in this grant? Over 10 UNF staff and students.

2. How many people in the community will be directly affected by this grant? Approximately 30 middle school students.

3. How many prior years have you received Foundation Board funding for this project? Another faculty and I received the $10,000.

Budget Summary

Personnel Services $________
Contractual Services $________
Expenses $________
OCO Equipment $________
TOTAL $12,500

Estimated completion date: (Must be within 24 months of award, usually January)

August 1, 2011

APPROVALS

College/Unit

Requestor: Faiz Ali-Raiss Signature: Date: 9/24/2010

Director/Chairperson: Scott Hochwald Signature: Date: 9/24/2010

Dean: Barbara Hetrick Signature: Date: 9/30/10

Academic Affairs: Yes (forward to Inst. Adv.)

Vice Pres/Assoc Vice President: Signature: Date:

FOUNDATION BOARD PROPOSAL APPROVAL

Yes: Approved Amount $________ Date of Approval/Disapproval:

1. Institutional Advancement sends requestor an approval letter w/copy to Academic Affairs and Foundation Accounting.

2. Forwards original proposal documentation to Foundation Accounting.

3. Institutional Advancement #

No: 1. Institutional Advancement sends requestor a disapproval letter w/copy to Academic Affairs.

Print/Type Name: Signature:

Account Project Number: ___________________________ Date: ___________________________ Name: ___________________________

(date) New account letter sent to Requestor. Employee Initials: ______ Forward originals to Foundation Accountant.

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(8/2010)
Part I. Project Plan and Supporting Data

Instructions: State clearly the project details. Use the following major headings: Project synopsis (one paragraph to be used in Foundation Board materials), proposal statement, objectives, expected outcome or benefit(s), project schedule and method of evaluation. Note: Limit to one additional page of narrative and include exhibits as needed.

PROJECT SYNOPSIS

This project is a continuation and a revamping of a very successful camp offered in the summers of 2005, 2006, and 2007. It is a two-week intensive summer camp in mathematics with integrated activities in science for gifted and high-achieving middle school students from Northeast Florida schools. These previous camps had the distinction of being the only camps for gifted and high-achieving students in the region and have attracted students from all the neighboring counties. In addition to the two full weeks of camp experiences in UNF facilities, additional projects and electronic communications will be maintained between the students and camp staff during the academic year. UNF faculty and senior students will be a resource for student projects such as mathematics, science and engineering fair projects during the academic year.

In this camp, students will engage in challenging hands-on activities such as motion detection, graphing speed and velocity that integrate mathematics and physics concepts. Students also engage in biological activities that address bacteria growth and decay. These kinds of activities will create the relevant for learning mathematics concepts through integrated approach with the sciences. Students will also engage in modeling and problem solving activities related to traffic jams and traffic patterns, writing codes and breaking codes.

In addition to this proposal, we are submitting a proposal to the Florida Department of Education, namely to the Governor’s Camp for Gifted Students later this semester. The Governor’s program targets only summer camps for upper middle and high school students. We plan to provide the 7th and 8th grade components of the camp independent of the funding outcomes of our proposal to the Governor’s initiative. UNF received the state funding in 2005 and 2006, in part because the Foundation supported this project for those years, allowing us to establish a record of strong results.

OBJECTIVES

- Provide skills and knowledge and to challenge students for higher achievement in seventh and eighth grade mathematics and science and beyond;
- Enhance career awareness in mathematics and science;
- Provide skills and challenging opportunities for high-achieving 7th and 8th graders to become aware of the relevance of mathematics and science experiences to their everyday lives;
- Foster the understanding and use of technology in learning math and science;
- Involve UNF students in the teaching, learning, and monitoring middle school students in these projects;
EXPECTED OUTCOMES

- Increase students’ mathematics and science content knowledge in a challenging, creative and cooperative approach.
- Increase student awareness of the professional skills and experiences in technical research domains.
- Provide students with university level scientific research experiences, character building, communication and writing skills.
- Introduce UNF pre-service teachers and students from other majors to the possibility of teaching as a career path by offering them a chance to work in an educational environment.
- Provide the Northeast Florida community with a high-quality experience for gifted 7th and 8th graders

PROJECT SCHEDULE

Summer Camp: Participants will work on intensive hands-on inquiry-based labs in mathematics and science for five days a week over two weeks. Each day students will start at 9:00 am and end at 3:00 pm. The schedule will include two ten minute mini breaks and 40 minutes for lunch. Each day, students will have approximately 2 hours of mathematics activities, 2 hours of science lab and research, and 1 hour of reflection and summarization of the daily activities.

Recruitment: Recruitment will start in early March 2008 through the middle school counseling staff, school district: gifted program coordinators, and department chairs. Brochures will be used for nomination and advertisement. Additional effort will ensure participation of students traditionally underrepresented in gifted programs. All applicants will be notified of their status by early May, 2011.

Selection Criteria: A minimum of two of the following items must be used:
- Student Interview and Self-Nomination Essay
- Gifted Checklist
- Portfolio of Student work
- Letter of Recommendation

METHOD OF EVALUATION

The principal investigator of this grant coordinated and evaluated six summer middle school mathematics and science summer camp programs, each with over 150 students, over several years. These camps were funded by The National Science Foundation. Some of the assessment mechanisms developed for these camps will be modified and implemented in this camp, including a student survey developed specifically for our previous middle school camps by the Duval County public school evaluation and assessment office. Pre and post assessments based on essays, projects, student portfolios, and interviews will be used to evaluate student gains and program efficacy.
Part II. Project Detail Budget/Narrative:

Instructions: List by category the anticipated budget cost and narrative description of the project per line item. Attach additional sheets as needed. Categories: personnel services, contractual services, expenses, OCO equipment.

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
<th>Budget Narrative</th>
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<tbody>
<tr>
<td>OPS</td>
<td>4000</td>
<td>Program coordinator and Evaluator</td>
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<tr>
<td>OPS</td>
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<td>Mathematics faculty and instructors</td>
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<tr>
<td>OPS</td>
<td>3000</td>
<td>Science faculty and instructors</td>
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<td>OPS</td>
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<td>Mathematics, Science, &amp; Education Graduate Assistants/Undergraduate Student Assistants</td>
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<td>Expenses</td>
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