



RASEM²:

Expanding Opportunity

in

Science, Technology, Engineering, and Mathematics

for

Students with Disabilities

a

Request for Proposals

to

Enhance Opportunities

for

Students with Disabilities

in

Science, Technology, Engineering and Mathematics

Extended by:

RASEM²

College of Engineering

P.O. Box 30001, MSC 3CE

New Mexico State

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Las Cruces, NM 88003

505 646-1395

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RASEM²...

The number of persons with disabilities entering the career fields of science, technology, engineering and mathematics is below its full potential. In partnership with the National Science Foundation, the Regional Alliance for Science, Engineering and Mathematics —— (RASEM²) was formed to address this problem.

RASEM² is a coalition of partner institutions in New Mexico and West Texas. Headquartered in the College of Engineering at New Mexico State University, the coalition includes 18 two-year colleges, eight four-year universities, 12 regional education cooperatives and six affiliate partners including Sandia National Laboratories and the Los Alamos National Laboratory.

Working to increase the number of persons with disabilities who earn baccalaureate and graduate degrees and go on to full professional participation in the technical fields of science, technology, engineering, and mathematics, RASEM² partners are implementing a range of activities in the following six area:

Expanding Advocacy;
Expanding hands-on learning opportunities;
Creating opportunities for participation in research projects;
Promoting faculty involvement;
Facilitating educational transition; and
Expanding employment opportunities

This **Request for Proposals** (RFP) is an opportunity to further expand the involvement of your institution in this work.

**Request for Proposals
to
Enhance Science, Technology, Engineering and Mathematics Opportunities
for
Students with Disabilities**

RASEM² Partner Institutions are invited to apply for funding to implement projects that will enhance the opportunities and involvement of students with disabilities in the academic disciplines of science, technology, engineering and mathematics (STEM).

Applicant projects may address any of the six initiatives listed below. Proposed projects may target students at any educational level, kindergarten through graduate school, but targeted students must be capable of pursuing an academic program leading to a STEM higher education degree. As a general guideline, 20 percent or more of the population of students served by your proposed project should have a certifiably significant disability. However, projects serving students with especially severe disabilities; living in small, rural, isolated schools; or from groups that have been historically under-represented in STEM, may serve populations with fewer than 20 percent having disabilities.

To be considered for funding, a proposed project must serve students with disabilities who have the potential to pursue STEM studies and eventually a professional STEM associates, baccalaureate, masters or doctoral degree.

While the focus of your project must be on serving students with disabilities, it may also serve significant numbers of students without disabilities. Indeed, projects should seek to provide services that promote the full and inclusive participation of students with disabilities in the academic and preprofessional aspects of academic life. Projects that result in the segregation, isolation or academic tracking of persons with disabilities will not be funded.

Invited institutions may prepare one or more proposals to address any of the six initiatives listed below. For each RASEM² initiative you want to address, please submit a separate proposal.

Proposals can be submitted at any time. Successful proposals will be funded for no more than twelve months. However, successful projects can be resubmitted for renewed funding.

The Initiatives

Initiative 1: Provide hands-on science experiences in pre-college science education environments

Projects in this area should provide promising pre-college students with intense STEM experiences intended to kindle interest in STEM. Desired student outcomes of projects in this area include

- * continued participation in STEM learning through informal activities
- * forming and/or participation in Junior Challenger Clubs¹ in middle schools and high schools
- * enrolling in middle school and high school STEM courses
- * increased awareness of the STEM career opportunities available through college study
- * increased confidence that earning a STEM degree is achievable
- * increased exploration of STEM college majors
- * increased numbers of students enrolling in college STEM courses and majors
- * eventual participation as RASEM² "Challengers" at the college level

Projects in this area could include such activities as

- * conducting Summer, Weekend or After-School Science Institutes serving students with disabilities
- * working with middle school or high school science faculty to enrich existing science course offerings for students with disabilities
- * forming middle school and high school Junior Challenger Clubs
- * forming college-level Senior Challenger Clubs
- * expanding/strengthening the involvement of Senior Challenger Club members with Junior Challenger Clubs

Initiative 2: Provide formal research experiences for undergraduate and graduate students

Projects in this area should provide undergraduate and graduate students with formal STEM research experiences. Desired student outcomes of projects in this area include

- * increased "hands-on" participation of students with disabilities in formal, professional level STEM research
- * Senior Challengers actively seeking out opportunities to participate in faculty, advanced doctoral student, or professionally directed research projects

¹ Challenger Clubs are clubs formed to promote and meet the social, professional and academic interests of students with disabilities who are pursuing STEM academic careers. Membership is open to any person with an interest in the purposes of the club. Junior Challenger is applied to clubs at the middle and high schools. Senior Challenger is applied to clubs at colleges. For more information on Challenger Clubs, please call (505) 646-1395 (V); (505) 646-8020 (TDD).

- * Senior Challengers presenting at the annual RASEM² or NM-AMP gathering
- * Senior Challengers presenting or publishing STEM research at professional meetings or in professional journals

Projects in this area could include such activities as

- * providing stipends or professional development grants to faculty members or advanced doctoral students who begin employing or engaging a RASEM² student in their research or who direct and monitor research conducted by a RASEM² student
- * recruiting faculty members or advanced doctoral students to encourage and monitor RASEM² student initiated research projects
- * providing "match-maker services" in which students with disabilities are introduced to STEM faculty and advanced doctoral students for the purpose of conducting research
- * encouraging private sector and government funded laboratories to hire students with disabilities as research assistants

Initiative 3: Enhance the abilities of faculty to encourage and enable the full participation of students with disabilities in a STEM curriculum

Projects in this area would focus on helping faculty create an instructional environment that better enables students with disabilities to actively and fully participate in the STEM educational experience. Desired outcomes could include:

- * modified instructional techniques and/or environments to better enable students with disabilities to fully participate in the instructional experience
- * development of systems for involving students with disabilities in study teams etc.
- * formation of professional response teams to assist teachers serving students with disabilities
- * involvement of partners and relevant agencies to identify qualified persons for response teams

Projects in this area could include such activities as

- * providing response team training
- * providing professional development workshops for faculty on how instructional environments can be adapted to meet the needs of students with disabilities
- * holding professional conferences
- * providing professional development seminars on teaching students with disabilities
- * recognizing and rewarding instructors and teachers at all levels for their work with students with disabilities

Initiative 4: Provide bridge programs between academic levels

Projects in this area would focus on helping students make successful transitions to the next academic level in their STEM educational development. Desired outcomes could include:

- * higher percentages of students making a successful transition to the next academic level in their STEM academic program, e.g., high school to college, two-year college to four-year college, undergraduate to graduate
- * maintaining or increasing STEM course work following a transition to the next academic level, e.g., continuing to be actively involved in STEM course work upon moving from elementary school to middle school, middle school to high school, high school to college, etc.
- * continued involvement of students with disabilities in STEM clubs, research, etc. upon transitioning to the next academic level
- * increased pre-transition activities that prepare students for a successful transition to the next academic level. This could include investigating course offerings, support services, clubs etc. available at the next academic level.

Projects in this area could include such activities as

- * Recruiting and training instructor champions to coordinate their efforts in "sending-off" and "receiving" students
- * Recruiting and empowering teacher champions to inform colleagues and students, coordinate mentoring activities at their schools, and identify promising students
- * Recruiting and empowering parent champions to provide support, advocacy, and community awareness
- * Recruiting, training and empowering students at the receiving institution to welcome and support transitioning students (e.g., big-brother/big-sister)
- * Recruiting, training and empowering Challenger Clubs to provide transition support for their members

Initiative 5: Provide mentoring by successful STEM professionals with disabilities and STEM students with disabilities

Projects in this area would focus on encouraging STEM professionals, faculty, graduate students, and advanced undergraduate students to mentor STEM students with disabilities. Desired outcomes could include:

- * STEM students with disabilities would develop broader networks of associations, and friendships with people from the STEM community to enhance future access to STEM opportunities
- * STEM students with disabilities would form strong mentoring relationships with faculty members, more advanced students, and members of the professional, non-academic community
- * increased social contacts between STEM students with disabilities and other "more senior" members of the STEM professional community
- * increased social contacts between STEM students with disabilities and STEM professionals outside the academic setting
- * increased interest in the participating members of the STEM instructional community to facilitate the educational experience of students with disabilities

Projects in this area could include such activities as

- * creating or strengthening a network of college students with disabilities who would mentor high school students with disabilities who, in turn, would mentor middle school students with disabilities
- * sponsoring RASEM² gatherings where mentors and mentees interact socially and professionally (e.g., social gatherings at the annual RASEM² or NM-AMP gathering; social events jointly sponsored by Challenger Clubs and academic departments, Dean's office, etc.)
- * expanding access to a network of scientists, engineers and STEM corporate partners
- * providing "match-maker" mechanisms whereby interested faculty members, advanced doctoral students, and members of the professional, non-academic STEM community could easily identify needs and participate in mentoring opportunities

Initiative 6: Secure co-op, summer internships, and professional employment

Projects in this area would focus on creating pre-professional work experiences for STEM students with disabilities. Desired outcomes could include:

- * increased numbers of Senior Challengers who secure summer internships or co-op positions with STEM based corporations or public entities
- * increased numbers of Senior Challengers who, upon graduation, obtain employment offers as a result of co-op and internship experiences

Projects in this area could include such activities as

- * expanding the network of RASEM² corporate supporters
- * supporting RASEM² and partners' offices of placement and career services in opening lines of employment (internships, co-ops, or permanent positions) with large numbers of STEM employers

Guidance for Writing Your Proposal

Our intention is to simplify your task of proposal preparation. In preparing your proposal, please try to do the following:

- * Use a simple direct style of writing that focuses only on what you propose doing.
- * Carefully describe what you will do. Your proposed program should be so directly relevant to the needs of RASEM² that a rationale is unnecessary.
- * Do not include hyperbole to illuminate the uniqueness of your institution, programs, student body, state, community, needs, etc.

Proposal Sections

Your proposal must contain the following sections

- * Cover page
- * Project narrative
- * Project budget

A template for each of these sections is found on the enclosed 3.5" floppy disk.

Cover Page

The format for the cover page is found as Attachment A of this Request for Proposal(RFP). It is also provided on the enclosed 3.5 floppy disk.

Project Narrative

The following sections describe how to prepare your project narrative.

Writing Conventions: In preparing your proposal, adhere to the following conventions:

- * 8½ x 11 page size
- * standard white 20 lb. or 24 lb. paper
- * one-inch margins for the narrative text
- * page number at bottom right hand corner of each page, outside the margins
- * type face should be similar to Times or Times New Roman, point size, 12
- * single spaced
- * use a blocked paragraph style in which paragraphs are separated by a blank line (as in this RFP) rather than indenting the first lines of paragraphs

The template you received on the 3.5" floppy disk is set up in accordance with the above.

Narrative Outline: In preparing your proposal, use the following outline. Use the section numbers and headings exactly as they are presented.

1.0 Organization Submitting the Proposal

1.1 Project Coordinator

1.2 Coordinator Qualifications

2.0 Proposed Activity

2.1 RASEM² Initiative and Objectives to be Addressed

2.2 Description of Activities

2.3 Relationship to Existing Services and Initiatives

2.4 Persons to be Served

2.5 Requirements for Participants

2.6 Recruitment

3.0 Project Staffing

The Content of Your Narrative

The following sections provide guidance for writing a concise narrative of your proposal(s) while assuring a description that allows us to understand your proposed effort. Please do not feel compelled to attain maximum recommended length for each section. In most cases, proposals can be just a few pages in length.

1.0 Organization Submitting the Proposal

Identify the name and location of your institution. No other information is necessary.

For example, this section could read:

*University of the Southwest
Las Tortugas, New Mexico 93002*

Recommended length of this section: two to three lines

1.1 Project Coordinator

Provide the following:

- * Name
- * Title
- * Address
- * Phone number
- * Fax number
- * E-mail address

for the person who will be coordinating your effort if it is funded. No biographical information should be included in this section.

Recommended length of this section: seven to ten lines

1.2 Coordinator Qualifications

In a paragraph, no more than one-fourth page in length, describe those qualifications of your proposed coordinator that attest to his or her ability to effectively coordinate your proposed project. Do not include qualifications that are not directly related to the ability to coordinate the activities of your proposed project.

Recommended length of this section: one paragraph, no more than one-fourth of a page

2.0 Proposed Activity

In one or two sentences introduce the nature (e.g., weekend institute) of the activities you are proposing. You will provide a more detailed description later.

Recommended length of this section: one or two sentences

2.1 RASEM² Initiative to be Addressed

Identify the initiative (see pp. 4-7) you propose to address. Use the exact wording as it appears in this RFP. Limit your project to one initiative. Also see evaluation criteria on page 15.

DO NOT ADD YOUR OWN, UNIQUE INITIATIVE(S).

Recommended length of this section: one or two lines

2.2 Description of Activities

Describe the activities you propose to undertake. Limit this section to a concise description of the activities.

Do not include a rationale for the activities or a discussion of their meaningfulness to your campus, students, etc. Your proposed activities should be so clearly relevant to the needs of the students we seek to serve, that the rationale is unnecessary.

Recommended length of this section: several paragraphs, one half to one page total length

2.3 Relationship to Existing Services or Initiatives

* If your proposed activities:

* will interface with existing services or initiatives (e.g., an existing tutoring program, faculty development program, existing science fair, etc.), please describe that relationship.

* If your proposed activities:

* represent a totally new initiative, please indicate in what way they are unique.

We are interested in funding both types of projects.

Recommended length of this section: one paragraph of two to eight sentences

2.4 Persons to be Served

In a paragraph, describe the persons to be served by your project.

- * If your project provides services directly to students, describe the following:
 - * characteristics of those students
 - * number of students
- * If your project trains professional staff members (e.g., college faculty members, counselors/advisors, public school teachers, etc.) to better serve students with disabilities, describe the following:
 - * the professionals served
 - * special characteristics (if any)
 - * number of professionals served

Do not provide a justification for selecting the population you choose to serve, simply describe its characteristics. (e.g., We will serve Native American middle school children from remote, rural settings who have disabilities that limit their abilities to make coordinated fine motor movements.) You can choose to serve a highly specific population or a more generally defined population.

Recommended length of this section: one paragraph of one to eight sentences

2.5 Requirements for Participants

In this section, describe the requirements or expectations you will have of participants for successful participation. Include both a description of the nature of the activities that must be completed and the required number of hours of involvement of each participant (student and/or professional staff).

For example,

- * each participating student will be expected to attend three of the four Saturday workshops, read and report on two "Science and Invention" books, and construct an "electronic gizmo"
- * to receive a stipend and book scholarship, members of the Senior Challengers club must attend the mentoring workshop and then spend a total of 25 hours working with their assigned Junior Challengers club mentee on a science project

Recommended length of this section: a short paragraph of two to five sentences

2.6 Recruitment

Very briefly describe how you will recruit participants for your project. Describe:

- * How you will recruit
- * Organizations and/or people you will contact
- * The number of people you will contact (if not stated above)
- * The number of people you will recruit into active participation

Recommended length of this section: two to five sentences

2.7 Dissemination of Benefits

Briefly describe how you will make the products, methods, and lessons learned in your project available to others.

Recommended length of this section: three to ten sentences

2.8 Sustainability of the Project

Briefly describe your proposed project's potential for sustainability after termination of funding. Provide your assessment of why your institution (or other group or agency) would find the continued funding of this effort of sufficient importance that needed funds or resources would be allocated. This section should reflect your assessment and does not constitute a commitment on the part of your institution to continue funding.

Recommended length of this section: three to ten sentences

3.0 Project Staffing

List the persons who will play primary roles in executing your project and a very brief summary of their involvement. This does not include those faculty or staff being served by your project (section 2.3).

Recommended length of this section: one or two short paragraphs or a short list

Project Budget

The form to be used for your project budget is found as Attachment B and on the enclosed floppy disk.

The Proposal Template Disk

You have received a 3.5" floppy disk that contains the template for writing your proposal. The disk contains two formats for the template, a WordPerfect template and a Word template. We recommend that you write your proposal by completing one of these templates. The disk contains the following six files:

Files in WordPerfect Format	Files in MS Word Format
cover page.wpd	cover page.doc
narrative.wpd	narrative.doc
budget page.wpd	budget page.doc

Submitting Your Proposal

Please submit two printed copies of your proposal along with a floppy disk for your proposal. Submit your proposal to: Ed Misquez, P.O. Box 30001, MSC 3CE, New Mexico State University, Las Cruces, NM, 88003.

Criteria Used in Evaluating Proposals

Proposals will be evaluated on the following criteria

1. To be considered for funding, proposals must
 - a. conform to the writing conventions

- b. have a cover page, project narrative, and project budget that conform to the standards specified in the RFP
2. Projects meeting the above requirements, will be evaluated for funding based on the following considerations:
- a. needs of the people to be served
 - b. need for the proposed services
 - c. potential for benefit
 - d. significance of the benefit
 - e. clarity of description of methods
 - f. potential for replication in other sites and situations
 - g. potential for sustainability after termination of funding

A Final Project Responsibility

Funded projects will be expected to provide a final report describing the project as implemented and the project outcomes. The final report shall parallel the narrative outline of your application for funding.

See page 20 for detailed guidance on preparing your final report (Appendix C).

**Attachment A
Cover Page**

The following page illustrates the Cover Page to be used with your proposal. The template for the cover page can be found on the 3.5 floppy disk enclosed with this Request for Proposals.

**Proposal
to
Enhance STEM Opportunities
for
Students with Disabilities**

**submitted to
William McCarthy, Associate Dean
Regional Alliance for Science, Engineering and Math
College of Engineering
New Mexico State University**

**for the period
_____ to _____**
(Applicants please indicate the period of performance)

Submitted by
{Name, department or office, address of the submitting institution}
Contact Person
{Name, address, telephone, fax, email address of the person to be contacted regarding this proposal}
Signature of approval of organization official
Signature: _____
Printed Name: _____
Title: _____
Date: _____

Attachment B Budget Page

The following page illustrates the format for your Project Budget page. The template for the budget page can be found on the 3.5 floppy disk enclosed with this Request for Proposals.

Guidance

In listing Items appearing in the Requested Funds portion of your budget, try to be succinct, but provide enough detail so readers can confirm the fiscal soundness of your request.

For example, if you need to purchase 10 volt/ohm/amp meters use a description like the following: 10 Acme volt/ohm/amp meters @ \$12.93 each - \$129.30. Avoid using an overly general statement such as meters - \$129.30 or equipment - \$129.30.

Similarly, you might write: 5 student book scholarships @ \$250.00 each - \$1250.00. Do not write: book scholarships - \$1250.00

Attachment C Outline for the Final Report for Funded Projects

Final Report for Funded Projects

Funded projects will be expected to provide a final report describing the project as implemented and project outcomes. The final report will parallel your application for funding.

With increasing demands that projects and programs demonstrate the effectiveness of their efforts, your final report will be critical in assuring the future success of our program. To provide documentation of benefits, you may need to report on the specific accomplishments of individuals or very small groups of people. Yet, when reporting on individuals or small groups, it is critical that we carefully guard the confidentiality and privacy of individuals.

As you begin preparing your final report, please contact Ed Misquez at RASEM² for help in assuring that we fully capture the positive benefits of your project while carefully protecting the rights to privacy of your participants. Ed can be reached at (505) 646-1395 (V) or (505) 646-8020 (TDD).

The following provides detailed guidance on preparing your final report.

Tip: Use your proposal as the starting point for your final report. In most cases, you can edit the proposal to read in the past tense and replace projected numbers with actual numbers.

1.0 Partner Organization

Identify the name and address of your institution. No other information is needed.

Recommended length of this section: four to seven lines

1.1 Project Coordinator

Provide the

- * Name
- * Title
- * Address
- * Phone number
- * Fax number
- * E-mail address

for the person who coordinated your effort. No biographical information should be included in this section.

Recommended length of this section: seven to ten lines

1.2 Coordinator Qualifications

In a paragraph, no more than one-fourth page in length, describe those qualifications of your coordinator as they specifically relate to this project.

Recommended length of this section: one paragraph, no more than one-fourth of a page

2.0 Project Activity

In one or two sentences introduce the nature (e.g., weekend institute) of the activities you executed. You will provide a more detailed description later.

Recommended length of this section: one or two sentences

2.1 RASEM² Initiative and Objectives Addressed

Identify the initiative and objectives, from the *Table of Initiatives and Objectives*, you were funded to address. Use the exact wording of the table for both the initiative and the objectives.

DO NOT ADD YOUR OWN, UNIQUE OBJECTIVES.

Recommended length of this section: two to five lines, each line providing an objective

2.2 Description of Activities

Describe the activities you executed. Limit this section to a concise description of the activities.

Do not include a rationale for the activities or a discussion of their meaningfulness to your campus, students, etc.

Recommended length of this section: several paragraphs, one half to one page total length

2.3 Relationship to Existing Services and Initiatives

Describe how your proposed activities interfaced with existing services or if your proposed activities represented a totally new initiative.

Please describe any collaborative effort that took place.

Recommended length of this section: one paragraph of two to eight sentences

2.4 Persons Served

In a paragraph, describe the persons served by your project.

- * If your project provided services directly to students, you should describe the following:
 - * characteristics of those students
 - * number of students
- * If your project trained professional staff members (e.g., college faculty members, counselors/advisors, public school teachers, etc.) to better serve students with disabilities, then your paragraph should describe the following:
 - * the professionals served
 - * special characteristics (if any)
 - * number of professionals served

Recommended length of this section: one paragraph of one to eight sentences

2.5 Requirements for Participants

Describe your requirements for successful participation. Include both a description of the nature of the activities and the required number of hours of involvement of each participant (student and/or professional staff).

Recommended length of this section: a short paragraph of two to five sentences

2.6 Recruitment and Completion

Very briefly describe how you recruited participants for your project. Describe:

- * How you recruited
- * The number of people you contacted
- * The number of people you recruited into active participation
- * The number of people successfully completing your project

Recommended length of this section: three to ten sentences

2.7 Dissemination of Benefits

Briefly describe how you have/will make the products, methods, and lessons learned in your project available to others.

Recommended length of this section: three to ten sentences

2.8 Sustainability of the Project

If your project was successful, briefly describe what you are and will be doing to encourage the continued resourcing and offering of this project.

Recommended length of this section: three to ten sentences

3.0 Project Staffing

List the persons who played major roles in executing your project and a very brief summary of their involvement. Do not include those faculty or staff being served by your project (section 2.3).

Recommended length of this section: one or two short paragraphs or a short list

4.0 Lessons Learned

Briefly describe the "Lessons Learned" from the execution of your project. Identify those things that worked especially well and those things that did not work as you expected.

The purpose of this section is to develop a RASEM² knowledge base on both effective and ineffective practices. Sharing your experiences with techniques, strategies, etc. that produced disappointing results is as important as sharing your successful efforts.

Recommended length of this section: one or two short paragraphs

5.0 Benefits Derived

Describe the benefits that the people served by your project derived from participation. This section should begin with "simple statistical summaries" of benefits (e.g., five students presented papers at ..., three students had summer internships, each student spent an average of 17.9 hours in the laboratory, ...).

It should also include "case-history" or anecdotal accounts of some or all of the participants.

Photographic documentation would be especially useful in "telling your project's story."

Clearly, we want to provide our funding source with as much information as possible on the benefits derived from your efforts. We will greatly appreciate the time you take to describe how the students you served have benefitted.

Recommended length of this section: as long as you want to make it!