



"Commissioning research and establishing standards for athletic equipment, where feasible, and encouraging dissemination of research findings on athletic equipment and sports injuries."  
**The National Operating Committee on Standards for Athletic Equipment**

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All grant applications must follow the same format. A research grant application must clearly and succinctly describe the overall project. **The review panel must be able to evaluate a proposal based solely on the materials presented in the proposal and appendices.** Applicants are encouraged to be as precise and detailed as possible.

The NOCSAE Research Director, upon receipt of the full grant application, will conduct a mechanical review. This is to confirm that the application includes all requested materials and is presented in the prescribed format. If deficiencies in the proposal are noted, the proposal will be returned to the Principal Investigator without review. The Principal Investigator is permitted to revise and resubmit the proposal so long as the resubmission is received by the application deadline. The prescribed grant application format is as follows:

## APPLICATION CHARACTERISTICS

- The NOCSAE Research Grant Program follows the National Institutes of Health R03 application format.
- Total Page length: 7 page maximum (1 page Specific Aims + 6 page Research Strategy) with no less than 1/2 inch margins and font size  $\geq 11$ .
- Proposals that are re-submissions should also include a 1 page Response to Comments
- Preliminary data are not required, but may be included if available.

## PROPOSAL INSTRUCTIONS

**All elements of the submission should be uploaded in one single PDF document. *The NOCSAE Cover Letter (signed) should be the first page in the document.***

### ABSTRACT (limit to 200 words)

The abstract will be viewed as a stand-alone document (not included in 7 page maximum). State the rationale, hypotheses and specific aims of the proposal. Describe concisely the research design, methodology, statistical analysis and expected outcomes. This is not included in the 7 page limit.

### SPECIFIC AIMS (1 page limit)

Investigators should include: 1) relevant background information, 2) the overall project objective, 3) the specific aim(s) accompanied by hypotheses, if applicable, 4) the general approach to be taken to achieve the aim(s), 5) how the project aligns with the NOCSAE mission and research priorities.

A well-written specific aims page should provide an overview of the entire project, and clearly establish a gap in the knowledge needed to address the problem, and why this project will fill this critical gap. It should explain the overall significance of the project as well as the long-term goal of the application or investigator(s).

Ideally, the aims should be related, but not dependent, upon each other. Hypotheses should be included whenever possible, though it is recognized that not all aims will require hypotheses. References to others' ideas or previous research are required to be cited in the specific aims page.

### RESPONSE TO COMMENTS (1 page limit)

For resubmissions only: A single page response directly addressing comments provided by the review panel from the previous submission. This section should clearly identify the major differences between the current and previous proposals. Paragraphs that contain major revisions should be clearly identified for the reviewers. This may be accomplished with font style (bold or italics) or a solid line in the left margin.

### RESEARCH STRATEGY (6 page limit)

Within the Research Strategy, the applicant should structure the application with sections on **Significance**, **Innovation**, and **Approach**. When reviewing, the reviewers will consider all of the criteria below in the determination of scientific and technical merit, and give a separate score for each. An application does not need to be strong in all categories to be judged likely to have major scientific impact. For example, a project that by its nature is not innovative may be essential to advance a field.

**Significance.** Does the project address an important problem or a critical barrier to progress in the field? Is there a strong scientific premise for the project? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field? How does this project align with the NOCSAE mission?

**Investigator(s).** Are the PIs, collaborators, and other researchers well suited to the project? Do New Investigators have appropriate experience and training? Do established investigator(s) have an ongoing record of accomplishments that have advanced their field(s)? If the project is collaborative or multi-PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?

**Innovation. Does the application challenge and seek to shift current research by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions?**

**Approach.** Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Have the investigators presented strategies to ensure a robust and unbiased approach, as appropriate for the work proposed? Are potential problems, alternative strategies, and a timeline for success presented?

**Environment.** Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

# APPENDICES

Beyond the Research Strategy, the additional information outlined below should be uploaded as appendices. These pages do not count against the Research Strategy 6 page limit. Additional content addressing the research approach that is included in an appendix will not be considered.

## Appendix A: Timeline

Should clearly identify a progressive timeline (including specific dates) for completion of the project. At the time of submission, the timeline should clearly show that the study has NOT already started (i.e. data collection begun). The only exception is that the IRB process may have been initiated, but no subject recruitment or actual data collection should be underway.

## Appendix B: Additional Materials

Appendix B should contain materials that support the Research Approach. When available and applicable, the following materials should be presented in this appendix:

1. Informed consent form
2. Survey instrument(s)
3. Interview script(s)
4. Multi-PI and/or multi-site plan
5. Power Analysis and Power Calculation methods and rationale for proposed sample size
6. Measurement capabilities, validity and reliability of instruments (including questionnaires)
7. Additional materials, e.g., Latin Square table or technical drawings, may also be included.

## Appendix C: Budget and Budget Justification

This appendix must include the overall budget for the complete project and be formatted using the [Budget Table Example](#). Following the itemization of the budget, a justification for each budgeted item must be included. Other sponsors (i.e. sources of funding, in-kind or donated items, etc.) and the nature of their support must also be indicated.

The following must be specifically addressed:

*Salaries/Wages:* All monies that will be used to provide salaries, hourly wages or assistantships for this project. If salary is requested, identify the percentage of effort and base salary used for the calculation. If salary support will be donated, this must be stated along with the effort percentage.

*Equipment & Supplies:* This includes all purchases necessary to complete the project that will be acquired through funds provided as part of the grant. Specify the company, model and cost of individual equipment items in the justification. General supplies do not need to be itemized.

*Indirect Costs:* Grant monies may be used to pay indirect (overhead) costs. NOCSAE will pay up to an additional 15% of the total direct costs of the project as indirect costs.

## Appendix D: Personnel

This appendix must include a biographical sketch for each individual (key personnel) involved with the project, formatted using either the *Biosketch Example* or the standard NIH biosketch format.

## Appendix E: Facilities

This appendix will contain a description of the facilities that are currently available for the completion of the project. If a facility (*e.g.*, laboratory, high school, clinic, etc.) will be used that is not controlled directly by the unit employing the Principal Investigator, a letter from the facility's director, indicating that the facility will be available for the duration of the study, must be included.

## Appendix F: Articles and/or additional information (optional)

This appendix may include copies of published or in-press manuscripts (maximum of three) that support the work proposed in this application. This section may include additional information or materials that the Principal Investigator wishes to provide in support of the grant proposal.

## Appendix G: References

Provide complete bibliographic information for references cited in this proposal. The use of AMA style is recommended.

# BUDGET TEMPLATE EXAMPLE

The budget below is to be used with the grant application. Please modify as needed to address the needs of each application, but the overall categories and annual categorization should remain.

<b>Personnel</b>	<b>Base Salary</b>	<b>Total Effort</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Total</b>
Researcher 1	\$ 75,000	5%	\$ 3,750	\$ 3,750	\$ 7,500
Researcher 2	\$ 68,000	5%	\$ 3,400	\$ 3,400	\$ 6,800
Researcher 3	\$ 55,000	5%	\$ 2,750	\$ 2,750	\$ 5,500
Researcher 4	\$ 92,000	5%	\$ 4,600	\$ 4,600	\$ 9,200
Hourly support	\$10/hour	50hours	\$ 500	\$ 500	\$ 1,000
Consultant			\$ 1,000	\$ 1,000	\$ 2,000
<b>Equipment (itemize)</b>					
			\$ 1,200	\$ 1,200	\$ 2,400
<b>Other Costs (Itemize)</b>					
Supplies			\$ 1,200	\$ 1,200	\$ 2,400
Stipends (50 participants)	\$25 each		\$ 1,250	\$ 1,250	\$ 2,500
Travel -				\$ 2,500	
<i>Direct Costs</i>			\$ 22,800	\$ 25,300	\$ 48,100
<i>Indirect Costs</i>		15%	\$ 3,420	\$ 3,795	\$ 7,215
<b>TOTAL</b>			\$ 26,220	\$ 29,095	\$ 55,315

**BIOGRAPHICAL SKETCH**  
**( DO NOT EXCEED TWO PAGES)**

NAME	POSITION TITLE		
Role in Proposed Project			
<b>EDUCATION/TRAINING</b> ( <i>Begin with baccalaureate or other initial professional education, such as nursing, and include</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY

<b>EMPLOYMENT HISTORY</b>
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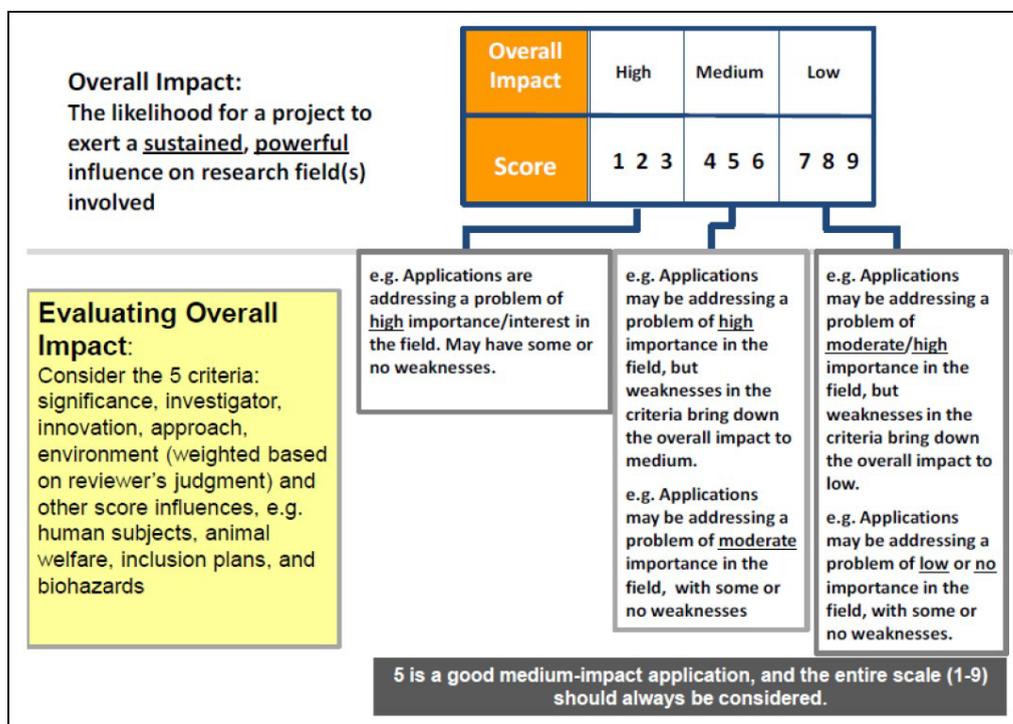
<b>PUBLICATIONS SUPPORTING PROPOSED WORK</b>
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<b>FUNDING HISTORY</b>
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# SCORING

NOCSAE grant applications are scored using the NIH scoring system, a 9-point rating scale (1 = exceptional; 9 = poor) in whole numbers (no decimals) for each section (ie Significance, Innovation, etc) and Overall Impact for all

applications. Scores of 1 or 9 will be used less frequently than the other scores, while 5 is for a good medium-impact application and considered an average score. The Overall Impact score is based on the reviewer's overall impression of the application as they see fit. Note that an application does not need to be strong in all categories to be judged likely to have major scientific impact and thus, deserve a high impact score. See the figure below for an explanation of scoring.



Overall Impact or Criterion Strength	Score	Descriptor
High	1	Exceptional
	2	Outstanding
	3	Excellent
Medium	4	Very Good
	5	Good
	6	Satisfactory
Low	7	Fair
	8	Marginal
	9	Poor