**PHI SIGMA STUDENT RESEARCH PROPOSAL GUIDELINES**

**for the R. D. Weigel Research Grant**

***Beta Lambda Chapter of the Phi Sigma Biological Honor Society, Illinois State University***

**The deadline for 2018 grant application is 5:00 p.m., Friday, 2 March.**

**Submit completed proposals online by emailing a PDF to PhiSigma.BetaLambda@Gmail.com.**

**Recommendation forms should be emailed to PhiSigma.BetaLambda@Gmail.com from the faculty’s ilstu email address.**

**Late applications will not be accepted.**

**Purpose**

To promote scholarship, education, and research in biology, the Beta Lambda Chapter of the Phi Sigma Biological Society makes funds available, up to $1,000, to aid the advancement of biological research conducted by students enrolled in degree programs at Illinois State University. Research proposals are awarded on a competitive basis; thus, some proposals may not be funded.

**Qualifications**

1. The applicant must both be currently enrolled as an undergraduate or graduate student in the School of Biological Sciences at Illinois State University, and a member of Phi Sigma or awaiting membership acceptance.

2. The applicant expects to graduate no sooner than August of the current year.

3. If the student received a Mockford-Thompson Fellowship or a Weigel Grant in the previous year, the student must have met all awardee requirements (for both awards) to be eligible to apply again.

**Evaluation**

The Grant Review Committee will consist of the President of the Beta Lambda Chapter, who serves as chairperson, two faculty advisors, and student reviewers that represent all areas of biology. Any student submitting a Weigel Grant is also required to serve on the Grant Review Committee. The review process will utilize a rubric scoring system as well as a relative ranking system (see Evaluation Sheet for more details).

Clarity, experimental design, and intellectual merit of the proposed research will be major factors considered during evaluation by the Grant Review Committee. The Committee will also consider how the funds requested will enhance or improve the proposed research project. The Committee will evaluate each proposal using the attached Evaluation Worksheet. **Late, incomplete, or improperly formatted proposals will not be reviewed.** Proposals ***must*** follow the format outlined below and should be written so as to be intelligible to anyone with a *general* background in biology.

**Proposal Format and Organization**

***Recommendation Form*** – The attached recommendation form is required with the proposal. The form should be filled out by someone who is familiar with the proposed research, ideally the principal investigator. The recommendation form should be sent in an email (to PhiSigma.BetaLambda@Gmail.com) by the PI him/herself from their university (ilstu) email account by the due date.

***Application*** – The application must be submitted to the Phi Sigma Gmail account as a PDF file by the applicant by the due date (PhiSigma.BetaLambda@Gmail.com).

**Each application must contain the following sections in order:**

***Cover Page (As a Separate PDF)*** Use the attached cover page as the first page of the research proposal (i.e., the application). On each subsequent page, the applicant’s last name and page number should appear in the upper right corner.

***Narrative (Pages 1-4)*** The Narrative section should be no longer than four single-spaced, typewritten pages. All pages should have one-inch margins on the top, bottom and each side. The font size can be no smaller than 12-point and files should be saved as a PDF. The Narrative should consist of five labeled sections: Introduction, Objectives, Procedures, Intellectual Merit, and References (References omitted from page limit). The content of these sections should be based on the following guidelines:

***Introduction*** – This section is designed to educate members of the Grant Review Committee about the nature of the proposed research. Background information should be provided that describes the general research area. The relationship between the applicant's proposed research project and current developments within the field should be explained. If prior results are applicable, they should be included.

***Objectives*** – This section should contain: (1) a precise statement of the hypotheses or objectives; (2) a statement of how the experimental design will test/address the hypotheses/objectives; and (3) a statement indicating how much of the proposed work the applicant expects to complete during the next year.

***Procedures*** – This section should focus on that portion of the research project that the applicant intends to complete over the coming year. A description of all significant steps, activities, controls, and methods of analysis (when appropriate) should be provided. Common procedures may be referenced.

***Intellectual Merit*** – This section should describe the significance of the research and its “potential to advance knowledge.” Students are encouraged to reference NSF’s grant proposal guide for more details on Intellectual Merit.

***References*** – Citations made in the preceding sections should be listed following the format below*.* In-text citations are numbered in the order that they appear. Use the following example to format the references section. Please note that standard journal title abbreviations are used.

1. Lehr, D., H.W. Goldman and P. Casner. Renin-angiotensin role in thirst: paradoxical enhancement of drinking by angiotensin converting enzyme inhibitor. *Science.* 1973. **182**:1031-1034.

***Itemized Budget, Amount Requested, and Justification (Pages following Narrative)*** Provide an itemized, comprehensive budget for the portion of the research project expected to be completed during the next 12 months and for which the applicant is requesting funds. The Grant Review Committee operates on the assumption that the applicant and the applicant's supervisor have designed and proposed a project that is financially feasible regardless of Phi Sigma support. The award can only be used in support of current research. Show how the requested amount was determined. Include any unencumbered funds from previous Phi Sigma grants in the calculations. Gasoline and supplies necessary for travel to research sites are allowable in the itemized budget.

In the justification, explain with respect to the objectives and procedures how the requested funds will improve the proposed research. ***The budget justification is an integral part of the review process and will be examined accordingly.*** Applicants graduating in August of this year must argue strongly for additional funding.

***Progress Report (Final Page)*** If the applicant has a current Weigel grant (i.e. one awarded for the current academic year), a progress report consisting of a 1-2 paragraph summary of the results and a brief accounting of the grant funds expended, including any unencumbered balance, must be attached as the last page of the completed application. **A new proposal will not be considered if a progress report is not included.**

**Award Notification and Acceptance**

Grant recipients will be notified by email prior to the spring banquet and then officially by letter prior to the end of the spring semester in which the application was made. Each grant recipient will be required to accept the award in writing; indicating that the grantee:

(1) Intends to be engaged in the described research activities while at Illinois State.

(2) Accepts the obligation of presenting a seminar or poster on his/her results the following spring at the Phi Sigma Research Symposium, if graduating in December, then in a Formal Seminar (IB, MCB, etc.).

(3) Accepts the obligation of devoting at least two hours of service per semester at the Phi Sigma bookstore during the following year.

**Failure to meet any of the above three guidelines will render the student ineligible to compete in future Weigel Grants, Mockford-Thompson Fellowships, and Research Symposium Travel Grant competitions. Moreover, any remaining funds will be automatically forfeited to Phi Sigma.**

**\*Note: If the grant recipient does not satisfy acceptance term 3), individuals must complete the missed contact hours to be eligible for any future Weigel grants or Mockford/Thompson fellowships through Phi Sigma.**

The grants will be activated immediately upon acceptance. The awarded funds will be available until they are exhausted or through the end of the following spring semester, whichever occurs first. Remaining funds will be forfeited to the Beta Lambda chapter of Phi Sigma there will be no extensions to the grants allowed. Instructions regarding the spending of award funds will be given to each grant recipient. Questions regarding spending should be directed at the current Phi Sigma treasurer.

Please note, any publications based on research supported by an R. D. Weigel Research Grant must acknowledge financial support received by the Beta Lambda Chapter of Phi Sigma.

A completed and submitted application for an R. D. Weigel Research Grant signifies acceptance of these rules and operating procedures by the applicant.

**PHI SIGMA GRANT PROGRAM**

***Cover Page***

**1**. Name of applicant: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2**. Research supervisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**3**. I have read this proposal: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(*research supervisor's signature here*)

**4.** Field of Research (Emphasis):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**5**. Project title:

**6**. Funds requested from the Phi Sigma Biological Society:

**7**. Student status (circle one): Undergraduate / Graduate

A. Undergraduate: Class:\_\_\_\_\_\_ (Fr, So, Jr, Sr)

B. Graduate: Degree program: \_\_\_\_\_\_\_\_ Years in program:

Is your research proposal on file (circle one)? Yes / No (a proposal on file is not required for funding)

**8**.Past and pending support

A. Previous Phi Sigma grants (year, title, amount received):

B. Other sources of support (year/duration, agency, amount received or requested; for pending applications, provide the expected date of notification):

**9.** By initialing each item, you agree to meet the awardee requirements if a Weigel Grant is received.

1. \_\_\_\_\_\_\_ I intend to be engaged in the described research activities while at Illinois State.
2. \_\_\_\_\_\_\_ I accept the obligation of presenting a seminar or poster on my results the following spring at the Phi Sigma Research Symposium, and if graduating in December, then in a Formal Seminar (IB, MCB, etc.).
3. \_\_\_\_\_\_\_ I accept the obligation of devoting at least two hours of service **per semester** at the Phi Sigma bookstore during following year.
4. \_\_\_\_\_\_\_ I have read and understand the consequences of not meeting all the above awardee requirements.

**PHI SIGMA GRANT PROGRAM**

***Recommendation Form***

Name of applicant: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title of proposal: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Research advisors, please check the appropriate boxes below. Written comments are optional for the R. D. Weigel Research Grant – their absence will not reflect unfavorably on the applicant. A progress report written by the applicant’s research supervisor is not required for a Weigel Grant application (*only* *applications for the E. L. Mockford and C. F. Thompson Fellowship require a progress report written by the applicant’s supervisor).*

 I am confident that the applicant can perform the proposed research.

 I have reservations about the applicant's ability to conduct the proposed research (please explain your reasons below, or indicate that you would like to meet with a member of the grant evaluation committee).

Name and signature of person recommending this application: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(*Name*)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(*Signature*)

Relationship with the Applicant:

 Major professor

 Member of the applicant's committee

 Applicant was a student in my course(s)

 Other; please specify:

I anticipate this person will defend their dissertation/thesis in:

Month or Semester: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Year: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Comments:***

Faculty, please email this Recommendation Form to the Phi Sigma Gmail account (PhiSigma.BetaLambda@Gmail.com) from your university email account (ilstu) by the deadline.

**PHI SIGMA GRANT Program**

***Evaluation Worksheet***

Name of applicant: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Research supervisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Project title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Funds requested: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Place a check-mark in the appropriate column in the table below***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Area | Ranking (1 “Excellent” – 9 “Very Poor”) | | | | | | | | |
| **Introduction**: Enough background information is provided to inform the reviewer of the nature of the research, how the research fits into the general field of study, and what prior data the student has collected (if any) to support his/her proposed objectives. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **Objectives:** The hypotheses/objectives that are to be tested are clearly stated and well-reasoned. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **Experimental Design:** The proposed research will adequately test the hypotheses/objectives. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **Intellectual Merit:** The significance of the proposed research is clearly discussed and well-justified. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **Feasibility:** The proposed research can be completed successfully over the coming year. The budget is thoughtfully planned and justified. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

***Reviewer Comments:*** Please provide specific comments/justification for each of the areas in the rubric of which a score of “Excellent” was not assigned. Use additional paper as needed.

**Introduction:**

**Objectives:**

**Experimental Design:**

**Intellectual Merit:**

**Feasibility:**

**Relative Rank of this Application\_\_\_\_\_\_\_\_\_\_\_\_**