IMSA Student Plan of Inquiry Proposal

This proposal form can be printed neatly (and the rest of the information word processed) and submitted by Sept. 17, 2008 (depending on start/placement date- extensions past these dates should be documented with the SIR office) for 2008-09 SIR investigations. Each student in SIR must complete a cover page and obtain advisor signatures on this cover page; collaborative groups may submit one proposal (items III-XIII). Each student, independent of others in a group, must write and submit sections XIV (ethics), XV (ethical implications), and XVI (societal implications). Sections XIV, XV, XVI should be attached to each student’s cover page; the body of the proposal, sections III through XIII, should be attached to the individual’s cover page who is first alphabetically in the group.

Student Name: ___________________________  Student ID Number: ___________________________

Email address: ___________________________  ____New _____ Revised Proposal

(please print clearly)

Student Collaborators: 

See Section XI

I) Preliminary (Descriptive) Title

________________________________________________________________________________________

II) Focusing Question (Identify a question or hypothesis that guides scientific, scholarly, or artistic investigation): _____________________________________________

________________________________________________________________________________________

Academic Area of Study: 

(Please choose the one area of study from the attached list which best fits your investigation)

Advisor(s): ____________________________

Please include all names of individuals who have/will have an impact on the student(s)’ work and who should be recognized.

Date Submitted: _______________________

XII) Human/Animal Use:

______ Yes this investigation will use human subjects or animals. If yes, go to IRB/animal use section below, and complete the proposal.

______ No, I/we don’t believe that this investigation is subject to human subjects or animal use oversight. Please note that final determination of whether IRB oversight is required of an investigation is determined by the IRB and not by the investigator. If no, go to questions XIV and complete the proposal.

Has this investigation received approval by any Institutional Review Board or Animal Care Committee? _____ Yes _____ No _____ determined to be exempt. (Please attach a copy of the IRB or Animal Care Committee letter.)

Will this investigation involve human/animal use for which IRB review/determination of exemption will be required? _____ Yes _____ No _____ Date (of anticipated IRB/animal use submission/determination.) (Please submit a copy of IRB/animal use correspondence when completed.) Complete section XII.

XIII) Hazardous Materials Use

______ Yes _______ No

(A copy of the SIR Research Safety Review form needs to be completed for each student and any investigation and will be sent home to each parent/guardian.)

I have reviewed the attached investigation proposal for content, completeness, and safety and am willing to serve as advisor for this student(s)’ investigation.

Advisor(s) Signature _____________________________
All of the following sections must be completed on attached sheets.

III) Background Research: What do you know about your topic? What background research have you done? What lead you to this investigation? Why is it interesting and important? This should be a coherent narrative, telling a complete story; what do you and others know that academically grounds and supports what you want to do?) It is expected that the length of this section, III, and section IV, may be 2-3 pages or more; use 1.5 line spacing.

IV) Thorough Description of the Investigation; What Are You Going To “Do?” Describe what you are going to do in your investigation, and how you are going to do it. This section may be a brief paragraph for some investigations, for others it may be longer, especially if you need to describe experimental/observational investigations.

V) Literature Cited: The references used to prepare section III, the investigation description, are documented in this section. Many science areas use parenthetical references and a variety of styles, which are journal specific. Science: The IMSA science team uses APA style, so this is the style which SIR is using for science areas. History: History papers are footnoted; the IMSA history team uses Chicago style, so this is the style that SIR is using for history. Footnotes should be at the bottom of the appropriate page; each reference used as a footnote citation should be listed in the literature cited section. Other disciplines: Use APA style.

VI) Bibliography: The literature cited section and the bibliography should contain a beginning list of at least 5 citations, at least 2-3 from the primary literature. The bibliography section should contain additional sources (not duplicated in from the literature cited section) which you anticipate using in your investigation, but which are not in the literature cited section. Use the specified APA or Chicago Style. Internet sites must be credible and should only be a minority of the sources used. Encyclopedias are not appropriate sources.

VII) What Are The Likely Outcomes for Your Learning? This should be a beginning list of at least three to five items/specific areas/topics (learning goals) that you believe you will grow significantly in during the course of the SIR investigation. Whether you complete your investigation or not, it is expected that you will learn, so what can we look at and assess as success at the end of your investigation, even if your investigation is not successful?

VIII) What Are The Likely Outcomes of The Investigation? How Will You Assess Whether You Have Answered Your Question? List two or more outcomes for your investigation. For example, formulate and revise scientific and scholarly explanations and models using logic and evidence; new interpretations; original art, music, writing; historical paper …. ; and so forth. How will you know you have made progress? Document what you and your advisor believe you can accomplish.

IX) Resources and Materials: List support that you will need in order to complete this investigation. (Books, lab materials, equipment, space required, transportation, and so forth.) Specific items for special orders must be requested separately before orders are placed.

X) Status of project at application (percent completed; artifacts generated). Have you worked on this investigation previously? If so, provide a brief synopsis of what you have previously accomplished.

XI) Collaborators: List the individual contributions of each student member of the group. This section clarifies and documents the expected roles of members of a group investigation in order to assist with ensuring that all members are participating fully and equally. Documentation of each group member’s contributions will help ensure few misunderstandings.

XII) Human/Animal Use: Do you intend on using people or animals in your project, i.e. conduct a survey to gather information, collect human samples, or use or observe animals? If YES to Human/Animal use, approval or exemption determination must be obtained from the institution’s IRB or Animal Care Committee, or IMSA’s Human and Animal Subjects Review Committee (HASRC); failure to follow correct processes may result in termination and loss of data and/or termination of project. Documentation of another institution’s IRB determination/approval should be included with the proposal.
XIII) Hazardous Materials: Will you be working with any potentially hazardous materials, processes, or equipment in your project? ________Yes ________No. Please complete an SIR Safety Review form and discuss potential hazards and how these will be avoided, plus document handling and disposal of hazardous materials as needed.

XIV) Ethics of Scholarly Investigation: Please review the IMSA student handbook regarding academic honesty, write a paragraph or two that discusses issues of academic integrity which you may encounter while pursuing your SIR investigation; affirm your commitment to honesty, academic honesty and integrity, and responsibility in the SIR program.

XV) Ethical Implications of Your Study: Write a short, one page paper discussing any ethical implications of your study (occasionally this may be not applicable).

XVI) Societal Implications of the Subject of Your Study: All investigations have the ability to impact, or once impacted, the human condition and society. Write a short, one paper that discusses the pros and cons of an aspect of the societal implications involved in your investigation.

Academic Area of Study: Please choose the one area of study from the below list which best fits your investigation and write it in the appropriate space on the cover page:

- biochemistry
- biology
- bioengineering
- business
- chemistry
- computer science
- Earth science
- economics
- education
- engineering
- English
- environmental science
- fine arts
- history
- law
- mathematics
- medicine
- neurobiology
- physics
- psychology
- social science
- space science
- theology