Category Judging Criteria for Behavioral Sciences, Biology, Chemistry & Physics

Scientific Methodology   (25 pts)

- The problem and hypothesis were clearly stated
- Dependent and independent variables were correctly identified and an appropriate experimental design was used to study the problem
- The student was careful and skillful in carrying out the project (including the accurate recording of data)
- The sample size was adequate and included appropriate controls
- The conclusions were supported by data and addressed the stated hypothesis

Presentation - Oral and Written   (25 pts)

- The description of the project was clear, adequately detailed and well documented
- The student/team showed good understanding of the problem and its significance, the methodology used and possible applications of the conclusions
- The student/team understood the limitations of the project and the data/results
- The student/team had ideas on what to do next and/or what to do differently next time
- The student/team was able to answer questions about the project in a thoughtful way

Originality/Creativity; Independence; Effort/Thoroughness; Learning Experience   (25 pts)

- The student/team showed creativity in choosing the problem and/or the methodology used
- The student/team worked independently; team members all contributed to a team project
- The background research was satisfactory and appropriate references were cited
- An appropriate amount of time and effort were put into the project
- This was a valuable learning experience for the student/team

Category Judging Criteria for Computer Science

Scientific Methodology (25 pts)

- The project had a clear objective
- The project was an improvement over current computer science inquiry
- The student/team was careful and skillful in carrying out the project
- The project provided the execution of the algorithm to demonstrate the utilization of the mathematical analysis
- <u>For projects in theoretical computer science</u> – The project involved creating/writing a new mathematical algorithm to solve a problem in programming
- <u>For projects in applied computer science</u> - The student/team created a simulation or a model, using computer science to explain, demonstrate, or make understandable existing scientific understanding

Presentation - Oral and Written   (25 pts)

- The description of the project was clear, adequately detailed and well documented
- The student/team showed good understanding of the problem and its significance, the methodology used and possible applications of the conclusions
- The student/team understood the limitations of the project and the data/results
- The student/team had ideas on what to do next and/or what to do differently next time
- The student/team was able to answer questions about the project in a thoughtful way

Originality/Creativity; Independence; Effort/Thoroughness; Learning Experience   (25 pts)

- The student/team showed creativity in choosing the problem and/or the methodology used
- The student/team worked independently; team members all contributed to a team project
- The background research was satisfactory and appropriate references were cited
- An appropriate amount of time and effort were put into the project
- This was a valuable learning experience for the student/team

Category Judging Criteria for Engineering

Scientific Methodology   (25 pts)

- The project had a clear objective
- The solution was derived from sound scientific and engineering principles
- The solution was workable (i.e. safe, practical, economically feasible)
- The solution was an improvement over previous alternatives
- The solution was tested for performance under the conditions of use

Presentation - Oral and Written   (25 pts)

- The description of the project was clear, adequately detailed and well documented
- The student/team showed good understanding of the problem and its significance, the methodology used and possible applications of the conclusions
- The student/team understood the limitations of the project and the data/results
- The student/team had ideas on what to do next and/or what to do differently next time
- The student/team was able to answer questions about the project in a thoughtful way

Originality/Creativity; Independence; Effort/Thoroughness; Learning Experience   (25 pts)

- The student/team showed creativity in choosing the problem and/or the methodology used
- The student/team worked independently; team members all contributed to a team project
- The background research was satisfactory and appropriate references were cited
- An appropriate amount of time and effort were put into the project
- This was a valuable learning experience for the student/team

Category Judging Criteria for Mathematics

Scientific Methodology   (25 pts)

- A clear objective was stated
- The objective was original
- The mathematical approach (proofs, graphs, formulas, etc.) was clearly explained
- The project was carried out correctly
- <u>For projects in theoretical mathematics</u> - The student/team understood the project's potential applications
- <u>For projects in applied mathematics</u> - The student/team understood the underlying mathematical theory

Presentation - Oral and Written   (25 pts)

- The description of the project was clear, adequately detailed and well documented
- The student/team showed good understanding of the problem and its significance, the methodology used and possible applications of the conclusions
- The student/team understood the limitations of the project and the data/results
- The student/team had ideas on what to do next and/or what to do differently next time
- The student/team was able to answer questions about the project in a thoughtful way

Originality/Creativity; Independence; Effort/Thoroughness; Learning Experience   (25 pts)

- The student/team showed creativity in choosing the problem and/or the methodology used
- The student/team worked independently; team members all contributed to a team project
- The background research was satisfactory and appropriate references were cited
- An appropriate amount of time and effort were put into the project
- This was a valuable learning experience for the student/team