

## **I. ISAT Program Goals and Objectives:**

ISAT's goals and objectives reflect a program that is intentionally broad based in the sciences, focused on problem solving and use of technology, and which integrates social issues into the analysis of modern issues and processes. There are 11 primary goals, with 78 specific objectives. The first 10 Goals (and their Objectives) were formally adopted by the faculty in September 2004 following a year long process to revise the original program goals. Goal K was formally adopted on May 9, 2008 after an Integration task force spent 18 months defining "integration" in the ISAT context and drafting the goal and its 9 objectives. The current program goals are listed below. The complete list of goals and objectives is in Appendix 1.

### **The 10 ISAT Undergraduate Program Goals:**

Goal A. ISAT graduates apply and integrate concepts in mathematics, physical science, biological science, earth science, and technology.

Goal B: ISAT graduates apply sound experimental methodology.

Goal C: ISAT graduates are familiar with the professional requirements for the acquisition and use of information and data.

Goal D: ISAT graduates work effectively in multidisciplinary teams.

Goal E. ISAT graduates can identify, formulate, analyze, and solve technological problems and understand their societal implications.

Goal F: ISAT graduates understand and apply the principles of professional ethics.

Goal G. ISAT graduates communicate effectively on social, scientific, and technical matters.

Goal H: ISAT graduates analyze science and technology within broader global, political, economic and social contexts.

Goal I: ISAT graduates are autonomous, self-directed learners who recognize the need for lifelong learning.

Goal J: ISAT graduates use the computer as an effective problem solving tool.

Goal K: (New as of 5/7/2008) ISAT Graduates are integrated problem solvers who look out from the perspective of a problem and then assemble the tools and knowledge needed to solve it.

### **Process for revising program goals**

Revisions of Goals and Objectives will be drafted by a designated committee or task force and then presented to the faculty for comments, and vote. These groups will be open to input from all members of the faculty, and the goal revision groups are encouraged to seek this input. The most current list of G&O will be maintained in the department's documents management system.

### **Recent (and Planned) Revisions to the Program Goals**

1. The Integration task force completed a new goal that addresses ISAT specific aspects of integrated problem solving. The goal and 9 objectives were approved at the May summit meeting. One additional objective was discussed, and will be drafted for approval in August.
2. The Social Context academic team requested that Goals H and F be revised to make the specific objectives more integrated. Since Ming Ivory was on leave this year, they will do this revision in 08-09.
3. The Information Systems team plans to evaluate Goal J, to add objectives that more accurately reflect the expectations of (minimal) competence in computing. They will do this revision in 08-09.