Teamwork in Research Programs in the Study of Students and Faculty in Science and Engineering

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Teamwork in Research Programs in the Study of Students and Faculty in Science and Engineering:

Critical Elements

1) Putting together a team
2) Getting into focus – keeping in focus
3) Organizing, integrating, coordinating
4) Staying “on course”
A. Putting Together a Team: Ongoing Recruitment

1. Teams of graduate students and undergraduate students

2. People who are keen “to do” and “learn” research
B. Getting into Focus – Keeping in Focus

1. **What** does the research intend to accomplish:
   Aims, goals, objectives

2. **Why** does the research matter:
   Rationale for – and potential impact of – the work

3. **How** will the questions be addressed:
   Method and plan of inquiry
C. Organizing, Integrating, Coordinating

1. Continuing “to do” and “learn to”:
   - execute research
   - pose questions
   - exercise judgment
   - communicate (orally and written)

2. Matching people and skills with parts of project

3. Core Values for the Team:
   a. Research quality
   b. Research integrity
   c. Individual and group initiative and persistence: depending upon self and each other
   d. Respect and consideration; equity and fairness
   e. Success
D. Staying “On Course”

1. Managing time – using time:
   Team meetings to:
   a. Review progress
   b. Chart tasks ongoing and ahead
   c. Encourage participation
   d. Follow-through

2. Motivating each other -- through:
   a. Belief in the work
   b. Enthusiasm for the project
   c. Recognition of roles/contributions
   d. Keeping aware of place of the research in the field(s)

3. Times to “push” – make corrections and adjustments