

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