

**REU Mentor Training Workshop
Iowa State University**

Case Number 2

In Over His Head Case Study

Tom arrives as a Research Experience for Undergraduates (REU) student, excited by the new experiences in front of him. After talking with him, Tom's mentor, Alice, learns that he is a junior at a small college where there are two physics faculty, one of whom knows a bit of astronomy. He has not had any astronomy or astrophysics courses, although he helped set up a new undergraduate observatory on the campus. He has had no experience with scientific computing.

Tom is enthusiastic about the numerical simulation project that he has been given. He is attentive during the first weeks as he receives a lot of preparatory information covering a wide array of subjects. His first steps in actually doing the project are slow and a bit tentative, which Alice chalks up to a steep learning curve. He puts in full days and asks a lot of questions, albeit rather elementary ones. But by the fifth week, Alice begins to wonder if Tom may be in over his head. He isn't progressing with either the computing or the astrophysics as fast as she had expected. He has become quiet at team meetings now that the conversations have shifted toward ongoing research, and when questions are directed to him about his research Tom answers curtly and without much content. He doesn't talk with the other REU students about his work, especially an REU student in the same research team who is making great progress.

Alice is concerned that the summer may be turning into a negative experience for Tom. But when she asks Tom how things are going, Tom says everything "is fine." He still puts in many hours each day, although Alice is not sure what he is doing. Alice wonders what to do now, if anything.