

This pre and post survey was designed by Mike Zelik at the University of New Mexico. It was modeled on a survey of students' attitudes toward introductory statistics developed by C. Shau. The items fall into four subscales: affect (attitude), cognitive competence, value, and difficult. Affect relates to positive and negative attitudes about astronomy and science (8 items). Cognitive competence describes attitudes about the students' intellectual knowledge and skills when applied to astronomy and science (9 items). Value involves attitudes about the usefulness, relevance, and worth of astronomy and science in personal and professional life (9 items). Difficulty entails attitudes about the difficulty of astronomy and science as subjects (8 items).

Survey of Attitudes Toward Astronomy (Pre)

The questions below are designed to identify your attitudes about astronomy and science. The item scale has 5 possible responses; the responses range from 1 (strongly disagree) through 3 (neither agree nor disagree) to 5 (strongly agree). Please read each question. From the 5-point scale mark the response that most clearly represents your agreement with the statement. Use the entire 5-point scale. Try not to think too deeply about each response; there are no correct or incorrect answers.

1. Astronomy is a subject learned quickly by most people.	1	2	3	4	5
2. I will have trouble understanding astronomy because of how I think.	1	2	3	4	5
3. Astronomy concepts are easy to understand.	1	2	3	4	5
4. Astronomy is irrelevant to my life.	1	2	3	4	5
5. I will get frustrated going over astronomy tests in class.	1	2	3	4	5
6. I will be under stress during astronomy class.	1	2	3	4	5
7. I will understand how to apply analytical reasoning to astronomy.	1	2	3	4	5
8. Learning astronomy requires a great deal of discipline.	1	2	3	4	5
9. I will have no idea of what's going on in astronomy.	1	2	3	4	5
10. I will like astronomy.	1	2	3	4	5
11. What I learn in astronomy will not be useful in my career.	1	2	3	4	5
12. Most people have to learn a new way of thinking to do astronomy.	1	2	3	4	5
13. Astronomy is highly technical.	1	2	3	4	5
14. I will feel insecure when I have to do astronomy homework.	1	2	3	4	5
15. I will find it difficult to understand astronomy concepts.	1	2	3	4	5
16. I will enjoy taking this astronomy course.	1	2	3	4	5
17. I will make a lot of errors applying concepts in astronomy.	1	2	3	4	5
18. Astronomy involves memorizing a massive collection of facts.	1	2	3	4	5
19. Astronomy is a complicated subject.	1	2	3	4	5
20. I can learn astronomy.	1	2	3	4	5
21. Astronomy is worthless.	1	2	3	4	5
22. I am scared of astronomy.	1	2	3	4	5
23. Scientific conclusions are rarely presented in everyday life.	1	2	3	4	5
24. Scientific concepts are easy to understand.	1	2	3	4	5
25. Science is not useful to the typical professional.	1	2	3	4	5
26. The thought of taking a science course scares me.	1	2	3	4	5
27. I like science.	1	2	3	4	5

28. I find it difficult to understand scientific concepts.	1	2	3	4	5
29. I can learn science.	1	2	3	4	5
30. Scientific skills will make me more employable.	1	2	3	4	5
31. Science is a complicated subject.	1	2	3	4	5
32. I use science in my everyday life.	1	2	3	4	5
33. Scientific thinking is not applicable to my life outside my job.	1	2	3	4	5
34. Science should be a required part of my professional training.	1	2	3	4	5