

UNIVERSITY OF ALABAMA
Department of Physics and Astronomy
PH 491/591 Fall 2022

Instructions:

1. Your plan of work should be turned in as a team - one submission with all names
2. The quiz and survey should both be completed and turned in *individually*
3. Nominal due date: 20 October 2022

Deliverable: Plan of work

Present a plan of work that covers at least the next 4 weeks. You will update this plan in about two weeks based on your progress and my feedback. Plan both in-class time and meetings outside of class. This should be informed by the class presentations and discussions thus far as well as your first experimental tests and refinements. This is not a full proposal for your project, just a plan for the next two weeks.

There is no set length requirement or format. The main guiding principles is that it should be as clear and concise as possible, and as short as possible without compromising those principles. We provide some guidance below. *You do not need to include any experimental results in this document unless they specifically address one of your goals.*

1. Include the overall goal of the project, i.e., why are you doing this.
2. Identify what your ancillary needs/goals are (e.g., list, objective tree)
3. For each, come up with:
 - an Action Step
 - the Resources Needed
 - the Complete By date
 - who is responsible, if known?
4. Ask: what are actions we can take right now make each goal reality?
5. If not now, when can we start?
6. How can we measure and evaluate progress?
7. Try to be specific and make concrete goals
8. Perfect is the enemy of good. You can and must modify this as you go!
9. Distill into a timeline as a separate figure, e.g., Gantt chart
10. Good planning guide: <http://websites.umich.edu/~elements/05chap/html/05prof2.htm>

Table 1: *Plan of Work Grading Rubric*

Item (points)	Unacceptable (0-5)	Developing (6-7)	Proficient (8-9)	Exemplary (10)
Overall goal/hypothesis points x 1	Not identified or not appropriate	Appropriately identified but not realistic	Appropriately identified, specific, and realistic	Meet proficient criteria, clearly stated, meaningful
Goals and objectives points x 2	Not identified or not appropriate	Appropriately identified but not realistic	Appropriately identified, specific, and realistic	Meet proficient criteria, clearly stated, meaningful
Action steps defined points x 2	Not identified or missing key details	Too vague or lacking in but not realistic	Clear and further goals, all key steps present	Multiple strategies and outcomes planned for
Resources needed identified points x 2	Not identified or not appropriate	Resources listed, but key materials or info lacking	Listed with specifics, range of tools	Selected proficiently to meet diverse criteria
Timeline points x 1	Not present	Present but unrealistic	Realistic	Allows for multiple eventualities
Timeline as standalone points x 1	Not present	Present, but not as a standalone element	Present as standalone, reasonable format	Crisp and easily parsed, appropriate detail

Quiz to assess the conflict management style of your team

Grading: full points for completion. Anonymized feedback will be given to the group.

Answer **yes** or **no** to each of the following questions.

1. Do you or your team members accept solutions and ideas without thoroughly discussing the pros and cons? Y N
2. Do you leave team meetings without fully understanding what is to be done next or why? Y N
3. Does your team keep having to deal with the same problems? Y N
4. Do team meetings stay focused on the task at hand? Y N
5. Do you or your teammates present a position and then immediately back down? Y N
6. Do you sense that you or others feel uncomfortable saying what you really think or feel? Y N
7. Do you or a few others on the team tend to dominate discussions and planning? Y N
8. Do you or your team members believe that keeping everyone happy is more important than finding the best solution? Y N
9. Do you or your team members blame others when things do not go as planned? Y N
10. Are you a part of a clique or subgroup that sticks together, regardless of the issue? Y N
11. Do you or your team members show reluctance in considering alternatives that you did not contribute? Y N
12. Do you or your teammates interrupt, or talk over, others? Y N
13. Do you or your teammates lecture others in order to convince them that you are correct? Y N
14. Does your team decide major issues by voting? Y N
15. Does your team attempt to satisfy everyone by incorporating everyone's suggestions, even if they weaken the solution? Y N
16. Do you believe that most of the decisions your team makes are less than ideal Y N

If you think your team is having problems, look back to the suggestions in the "Design Tactics" slides we went over in the first week.

Behavioral checklist

Grading: full points for completion. Anonymized feedback will be given to the group. Ideally: use this to inform your plan of work.

Rating scale: 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Frequently, 5 = Always, N = Does Not Apply

Category	You	Your Team
Decision Making		
1. Identified several alternatives before selecting a solution		
2. Objectively evaluated alternatives in relation to criteria derived from functional requirements and constraints		
3. Avoided rushing to judgement on other's ideas		
4. Built on other's ideas and suggestions		
5. Encouraged unusual and creative ideas		
Project Management		
6. Thoroughly identified all tasks and activities that had to be completed		
7. Established realistic deadlines and time estimates		
8. Began documenting team progress and action steps		
9. Used a Gantt chart or other planning tool to track progress		
10. Modified tasks and timelines as new information was obtained		
Communication		
11. Gathered information and research from multiple and relevant sources		
12. Clearly articulated how the proposed solution meets design requirements		
13. Appropriately documented references and resources used		
14. Used graphics and diagrams to illustrate points and ideas		
Collaboration		
15. Invited others in discussions and decisions by soliciting their input		
16. Invited questions and comments from team members		
17. Encouraged contrary opinions		
18. Allowed time for debate and discussion		
19. Sought to ensure balanced participation among all team members		