ASTR 503/703 Team Project Planning Form

Project Title: _____

Team:	Name	Roles
	1. _____	_____
	2. _____	_____
	3. _____	_____
(optional)	4. _____	_____

Roles *Identify roles (see back) with people by initials, ideally one in each category per person.*
Learning: astro literature locator ___ code & algorithm locator ___ survey data expert __
Computing: master branch master ___ method comparison leader ___ visualization pro ___
Synthesizing: timeline and task manager ___ ipython notebook integrator ___ lead writer ___
Checking: cross validation leader ___ data skeptic ___ Bayesian reviewer ___

Overview *On a separate page, describe the project goals and plan of action, commenting on how each project requirement below will be satisfied.*

1) cross chapter boundaries in the Ivezic text
2) compare methods for at least one analysis step, one method per team member
3) employ Bayesian methods at some point
4) employ cross validation at some point
5) address one or more "real data" issues -- errors, outliers, limits, or missing data
6) demonstrate good data display strategies in the final ipython notebook

Timeline (tasks and milestones; * indicates weeks in which ipython notebooks will be reviewed)

Week 7 _____

Week 8 _____

*Week 9 _____

Week 10 _____

*Week 11 _____

Week 12 _____

*Week 13 _____

Week 14 _____

---------- DO NOT WRITE BELOW, INSTRUCTOR USE ONLY----------

Scheduled Team Worktime: MWF 11-1 MW 2:30-5:30 TuTh 9-12
Team Vox Charta Schedule: M _____ Tu _____ W _____ Th _____ F _____

Description of Roles

Learning:

- **astro literature locator** – review articles and texts and find key project-related readings to share with whole team (consult professor with questions)
- **code & algorithm locator** – review available codes and documented algorithms and share the most promising/relevant with the whole team (consult professor or TA with questions)
- **survey data expert** – review documentation/websites for RESOLVE/ECO/SDSS to become familiar with available data and how it's organized (consult professor or TA with questions)

Computing:

- **master branch master** – the person who "owns" the master branch of your team GitHub repo and is authorized to lead merges of other branches into it (ideally with the authors' help)
- **method comparison leader** – the person who will perform comparative tests of the efficacy of different methods for the analysis step where each team member has used a different method (ideally with input from the whole team on what those tests should be)
- **visualization pro** – the person who will optimize and explain the data display strategies used in the figures in the final ipython report (ideally with ideas and feedback from the team)

Synthesizing:

- **timeline and task manager** – the person who will make sure the team is on track, all tasks have an assigned owner, and set up meetings/internal deadlines for synthesizing results
- **ipython notebook integrator** – the person who will keep the primary team ipython notebook, integrating code, text, and visuals from team members coherently
- **lead writer** – the person who will synthesize background literature/information and team discussions regarding methods and conclusions into written words for the final notebook

Checking:

- **cross validation leader** – the person who will perform the cross validation analysis, with input from the whole team regarding the stage of analysis at which to apply it
- **data skeptic** – the person who will critically review results looking for reasons why they might be wrong based on misuse/misunderstanding of data ("garbage in, garbage out") and/or missing data/selection effects
- **Bayesian reviewer** – the person who will critically review methods from a Bayesian perspective, evaluating the appropriateness of Bayesian priors (and justifying those in writing) and looking for Bayesian alternative methods to compare with frequentist methods