

Astronomy 2291 – In-Class Exam Rules and Hints

All in-class exams will be closed-book, closed-notes, usually consisting of 4 or 5 quantitative questions each of which will be given equal weight.

You may bring the following materials to the exam:

1. A handheld scientific calculator. You may **not** use calculator apps on internet-capable smart phones, and you cannot use Google calculator on your phone or laptop (sorry).
2. A single 8x11-in sheet of paper with notes. You may use both sides. Notes must be readable without magnification. Good single-page note sheets will be carefully crafted to include only the most relevant formulae, **physical constants**, and concepts for topics covered by the exam. We will provide *uncommon* physical parameters (e.g., masses and orbital parameters of solar system bodies other than the Earth and Sun). Remember, the more you pack onto the sheets, the harder they will be to use and will waste your time, so stick to the fundamentals.
3. Write your exams with a #2 pencil or pen, black or blue ink only.
4. Clean sheets of paper for writing your answers (no bound notebooks or “blue books”, please). We will provide a stapler to bind the sheets together.
5. You may have up to 5 sheets of blank scratch paper that will not be handed in.

Suggestions for taking a quantitative exam:

All questions have equal weight, so budget your time accordingly.

Read each question through first and make sure you understand it before starting on your solution.

Write down what you know, and draw a diagram where applicable.

It is always a good idea to try reducing and simplifying the problem algebraically before punching in numbers to evaluate your final answer.

Pay special attention to correct dimensions, choice of units and significant figures, but remember to not do any rounding off until the **final answer**.

Use your newfound skill of developing emotional relationships with numbers to think about whether or not your final answer makes sense.

Show all steps in your work, including how you handle units, to help us understand what you are doing (or identify where things have gone wrong).

Use units appropriate to the problem. For example, while we generally use MKS units in terrestrial physics problems, if the problem is about planetary orbits, periods expressed in units of days or years and sizes in km or AU may be more appropriate than seconds and meters.