

MATH 464.01 - REAL ANALYSIS I  
JOURNAL PROJECT

*Note:* This project is optional, however you may earn up to 20 points extra credit through completion of the journal entries.

*What is it?* Every Monday at the beginning of class you will hand in a journal entry. This entry will consist of two parts:

1. A summary of the definitions learned in the previous week.
2. At least two “Connections”. A connection describes how concepts are related. You should state these connections in your own words, not just restate definitions or a theorem. Some examples of connections would be the following:
  - Suppose that you have just learned the definition of the limit of a function (in Chapter 4.) You could describe how this is similar to the definition of the limit of a sequence that you learned in Chapter 2.
  - You could state which properties necessarily imply other properties; for example: If a function is continuous then it is integrable, but the converse is not true.

*How is it graded?* You will receive a score of 0, 1, or 2 for each journal entry. You will receive a score of 2 if the entry is complete and correct; a score of 1 if the entry is partially complete and/or contains errors; and a score of 0 otherwise.

*How does this help me?* The study of analysis requires a firm grasp of the basic definitions, but it is also important to see the picture at large. The notion of convergence, for example, is consistent whether we are talking about a sequence or a function. My goal with this journal is to help you to reinforce the definitions as we learn them, as well as to help you reflect on how the material that you are currently covering relates to material in earlier sections.