**MATH 382 UWR Rubric – used to evaluate mathematical proofs**

| Criteria | Proficient | Competent | Satisfactory | Unsatisfactory |
|---|---|---|---|---|
| Use of Mathematical Notation | The proof uses accurate and appropriate mathematical notation and terminology. Symbolic notation is used where it clearly simplifies the discourse, and avoided when English will better serve the reader. | Notation and terminology are correctly used, but there may be instances where the discourse would benefit from either more or less use of symbols versus English. | Most, but not all, the notation and terminology is used accurately. Errors are identifiable and correctable by a reader of experience similar to the author. | Notation and/or terminology is frequently misused. The writer may use personal rather than standard notation. |
| Use of Definitions | Relevant definitions appear where needed to guide the logical flow. | The proof accurately invokes all needed definitions, though they may appear other than precisely where needed. | Some relevant definitions are missing or misstated, but the proof is otherwise understandable. | Several relevant definitions are missing or incorrectly stated, compromising the argument beyond repair. |
| Concise Writing | The proof is well-organized and succinct, without inclusion of irrelevant definitions or theorems. Spelling and grammar are correct. | The author generally avoids digressions, but may repeat some ideas in an unnecessary way. | The proof is well-organized but includes extraneous steps, definitions, theorems, or unnecessary repetition. | The proof contains several extraneous steps which lead to a confused organization. |
| Reference to Earlier Theorems | The proof accurately references necessary prior theorems, with explicit statements or names. | Reference to necessary prior theorems is complete, but may be somewhat vague. | Some theorems necessary to the deductions are used correctly, but others are missing, misused, or stated inaccurately. | Reference to prior theorems is generally lacking, or the theorems in question are stated inaccurately. |
| Logical Flow | A clear, complete, and properly ordered chain of deductive steps leads from the hypothesis to the conclusion. The proof moves seamlessly between symbolic notation and standard English. | The chain of deductive steps is complete and correctly ordered. | One or more intermediate deductive steps are missing or unclear, but the correctness of the proof is not compromised. | The hypothesis or conclusion is missing or incorrectly stated. The stated chain of deductions does not lead to the stated conclusion. |