NAME: _____

Grading rubric: Homework 3

MATH 429/629 INTRODUCTION TO BAYESIAN STATISTICS (SPRING 2019)

Please complete exercises Ch.6, #1-3,7,C1-C4 in Bolstad & Curran. I selected these problems to give deliberate practice towards mastering learning outcome 3 — *students will conduct Bayesian inference for parameters of discrete and continuous random variables.* Questions 1-3 provide practice for calculating Bayes' rule for discrete random variables, both for a single observed value and multiple observations at a time. Question 7 applies Bayes' rule for the Poisson setting. Lastly, Question C1-C4 present the first computational exercises of the text. These questions guide you in using the BOLSTAD R package to calculate Bayes' rule for discrete random variables using predefined functions. You do not have to report all your R code — just be sure to justify your work well.

	0	**1**	**2**	**3**	×	Score
Point value label	**Needs Improvement**	**Approaching standards**	**Meets standards**	**Exceeds standards**	**NA**	
1. Explanation and justification	Explanation is difficult to understand and is missing several components OR was not included.	Explanation is a little difficult to understand, but includes critical components.	Explanation is clear.	Explanation is detailed and clear yet concise.	**2**	
2. Mathematical accuracy	More than 25% of computations/statements have errors in selected problems.	Most (75%-89%) of computations/statements are free of errors in selected problems.	Almost all (90%-99%) of computations/statements are free of errors in selected problems.	All of computations/statements are free of errors in selected problems.	**2**	
3. Completion	Several problems are not completed.	All but two of the problems are completed.	One problem not completed.	All problems addressed.	**1**	
4. Neatness and organization	The work appears sloppy and unorganized. It is hard to know what information goes together.	The work is presented in an organized fashion but may be hard to read at times.	The work is presented in a neat and organized fashion that is usually easy to read.	The work is presented in a neat, clear, organized fashion that is easy to read.	**1**	
5. Mathematical terminology and notation	There is little use, or a lot of inappropriate use, of terminology and notation.	Correct terminology and notation are used, but it is sometimes not easy to understand what was done.	Correct terminology and notation are usually used, making it fairly easy to understand what was done.	Correct terminology and notation are always used, making it easy to understand what was done.	**1**	

Total Score (out of 20 points, 21 points possible): _____