

CE6147 – Introduction to Bayesian Data Analysis

貝氏資料分析介紹

Instructor:	Min-Te (Peter) Sun, Ph.D. Office: 工五館B213室 Office Phone: (03) 422-7151轉35213 Email: msun@csie.ncu.edu.tw Website: http://www.csie.ncu.edu.tw/~msun/ Course website: http://lms.ncu.edu.tw/	
Time and Place:	W 9:00A – 11:50A 工五館 A306	
Office Hours:	Wed and Thu 4:00P – 5:30P, or by appointment	
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TA's Office Hours	Tu 4:00P – 5:00P, Th 5:00P – 7:00P, or by appointment	
Description:	This course provides a bridge between undergraduate training and modern Bayesian methods for data analysis, which is becoming the accepted research standard. Knowledge of algebra and basic calculus is a prerequisite.	
Text:	Osvaldo Martin, <i>Bayesian Analysis with Python: Introduction to statistical modeling and probabilistic programming using PyMC3 and ArviZ</i> 2nd Ed., 2018. Packt Publishing. ISBN-13: 978-1789341652	
Grading:	Written Assignments	45% (3 higher ones out of all assignments, 15% each)
	Final Exam	30%
	Final Project	25% (10 for presentation and 15 for report)
	Total	100%
Academic Misconduct Policy:	You are encouraged to discuss homework assignments with each other. However, you are individually responsible for the homework assignments and exams. You are NOT allowed to copy assignment from each other. Any offense of this policy will be reported to the Academic Honesty Committee . If you are having difficulties, see me or TA during office hours or schedule a meeting with us via email.	
Disabilities:	Students who need accommodations are asked to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If you have a conflict with my office hours, please call me to arrange the meeting time.	

Chapter	Topic:
0	Getting Started
1	Thinking Probabilistically
2	Programming Probabilistically
3	Modeling with Linear Regression
4	Generalizing Linear Models
5	Model Comparison
6	Mixture Models
7	Gaussian Processes
8	Inference Engines
	Final Exam (5/31)
	Project Presentation (6/7)