MODULE EVALUATION REPORT

Module	CS3244 - MACHINE LEARNING
Academic Year/Sem	2016/2017 - Sem 1
Department	COMPUTER SCIENCE
Faculty	SCHOOL OF COMPUTING

Student Feedback	
Raters	**Student**
Responded	63
Invited	103
Response Ratio	61.17%

1. Overall opinion of the module

Frequency Analysis
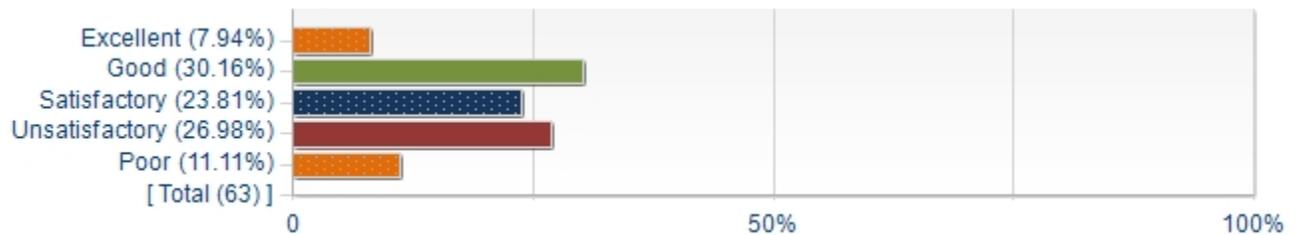
| Statistics	Value
Response Count	63
Mean	2.97
Standard Deviation	1.16

Normative Analysis

Question	Module Average (CS3244)		Dept Avg (COMPUTER SCIENCE)		Fac Avg (SCHOOL OF COMPUTING)		Dept Avg by Level (COMPUTER SCIENCE-LECTURE (Level 3))		Fac Avg by Level (SCHOOL OF COMPUTING-LECTURE (Level 3))	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
What is your overall opinion of the module?	2.97	1.16	3.86	0.92	3.81	0.94	3.68	1.00	3.74	1.01
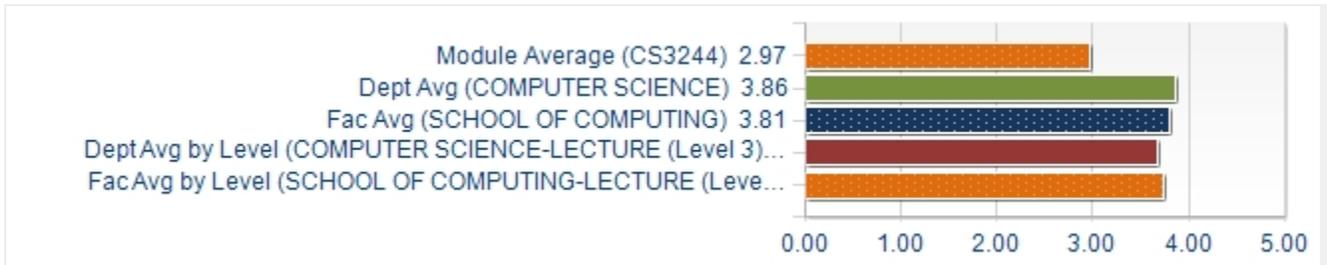
2. Expected Grade

Frequency Analysis
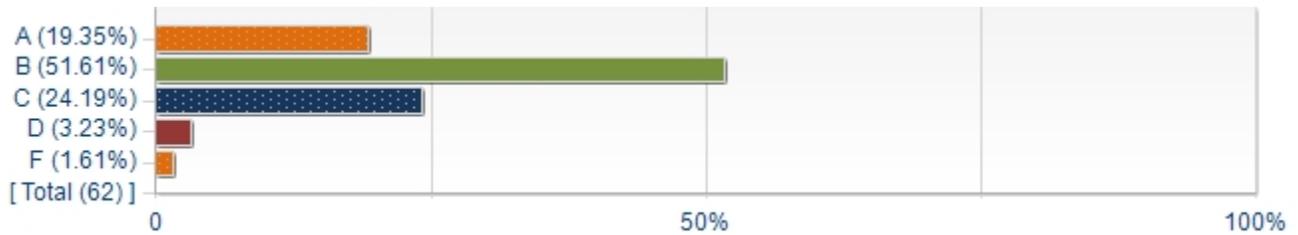
Statistics	Value
Response Count	62
Mean	3.84
Standard Deviation	0.83

Normative Analysis

Question	Module Average (CS3244)		Dept Avg (COMPUTER SCIENCE)		Fac Avg (SCHOOL OF COMPUTING)		Dept Avg by Level (COMPUTER SCIENCE-LECTURE (Level 3))		Fac Avg by Level (SCHOOL OF COMPUTING-LECTURE (Level 3))	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
The grade that I am most likely to get in the module is:	3.84	0.83	4.02	0.81	4.09	0.77	4.10	0.76	4.18	0.72
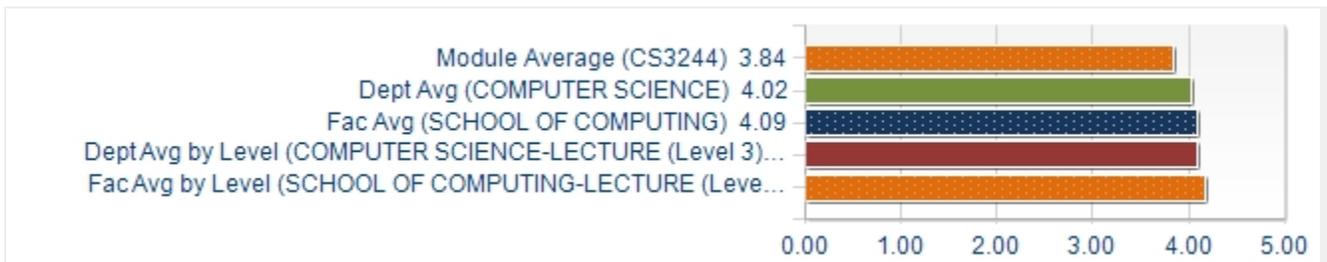
3. Difficulty Level of the module

Frequency Analysis
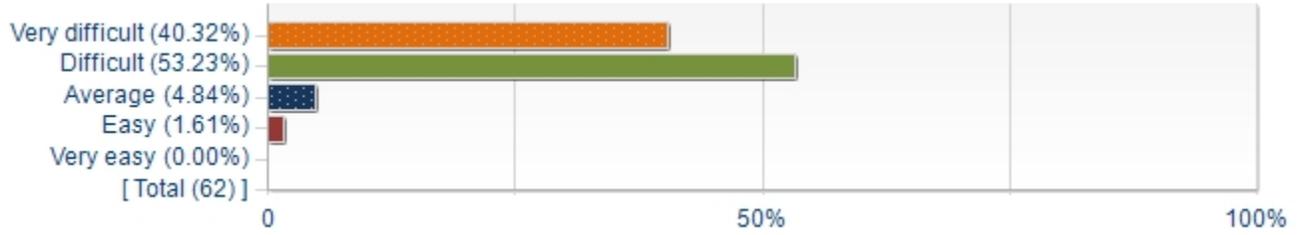
| Statistics	Value
Response Count	62
Mean	4.32
Standard Deviation	0.65

Normative Analysis

Question	Module Average (CS3244)		Dept Avg (COMPUTER SCIENCE)		Fac Avg (SCHOOL OF COMPUTING)		Dept Avg by Level (COMPUTER SCIENCE-LECTURE (Level 3))		Fac Avg by Level (SCHOOL OF COMPUTING-LECTURE (Level 3))	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
I rate this module as:	4.32	0.65	3.93	0.80	3.81	0.81	3.95	0.78	3.82	0.80
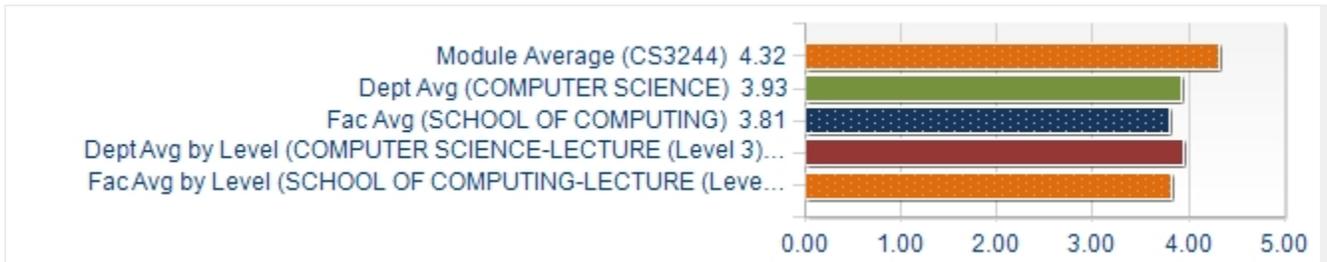
MODULE LEARNING OUTCOMES

1. Understand the basic concepts of machine learning.

All the time (9.84%)
Most of the time (42.62%)
Sometimes (45.90%)
Never (1.64%)
[Total (61)]

0   50%   100%
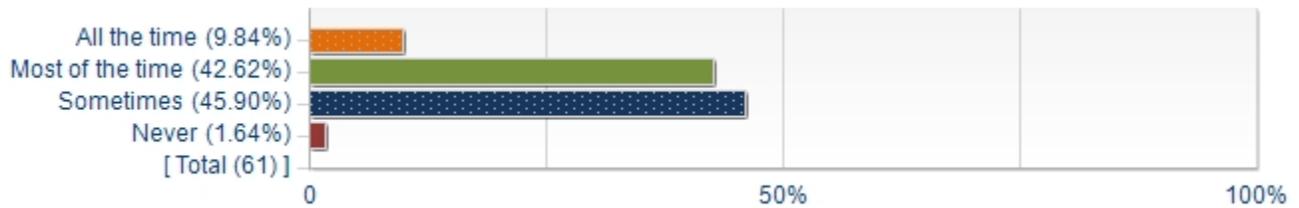
Statistics	Value
Response Count	61
Mean	2.61
Standard Deviation	0.69

2. Apply an appropriate machine learning algorithm for a given problem.

All the time (9.84%)
Most of the time (42.62%)
Sometimes (47.54%)
Never (0.00%)
[Total (61)]

0   50%   100%
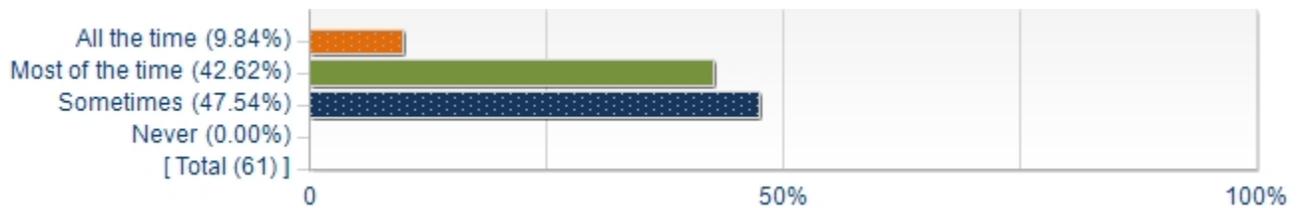
Statistics	Value
Response Count	61
Mean	2.62
Standard Deviation	0.66

3. Evaluate the performance of a machine learning solution.

All the time (11.48%)
Most of the time (44.26%)
Sometimes (44.26%)
Never (0.00%)
[Total (61)]

0   50%   100%
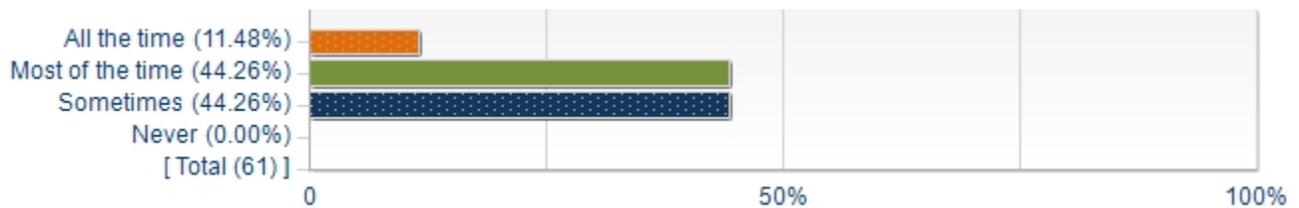
Statistics	Value
Response Count	61
Mean	2.67
Standard Deviation	0.68

4. Use a machine learning tool to carry out machine learning experiments.
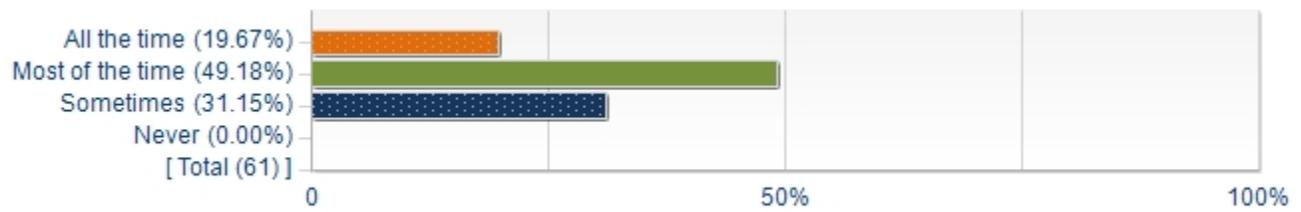
Statistics	Value
Response Count	61
Mean	2.89
Standard Deviation	0.71

WHAT I LIKE / DISLIKE ABOUT THE MODULE

What I liked about the module:

Comment
I unexpectedly love the theory and math here.
Learnt many interesting concepts which are largely applicable in today's world of AI and machine learning
Nil
Machine learning is interesting
content and its application is interesting
Relevant
total rip off of caltech lecture so at least i can watch someone competent teach
–
Seeing results from my tests
Exposes us to many machine learning concepts
Content
–
An improvement over the previous iteration.
The topics covered are great. Definitely got me more interested in machine learning.
Covers most of the machine learning algorithms and methods. Let us know how to apply these methods.
Learning something really useful and awesome if you can make it
Gave me a broad overview of machine learning.
I like challenging things in general
Workload is manageable.
This module is very interesting and applicable in data science industry.
explained the basics of machine learning
I like how it is not that hand-wavy compared to previous semesters, as complained by previous batches of students. This is closer to the data mining that I imagined this course to be.
NIL
Imparts skills and knowledge relevant to the industry
Really modern content.
Deep learning of theoretical foundations necessary for real machine learning work.
Offers a mathematical perspective in learning which is interesting when you eventually understand it
Interesting

What I did not like about the module:

Comment
I did not like Homework 3. Would be better if there was more time so that I can do it as a solo homework.
no webcast !!!   discuss without defining key concepts !!!!!!   errors in the slides   tutorial question not explained well   some exam questions not clearly stated
Poor management
Some parts were rushed and I had to do a lot of self-learning to pick up the materials.

Comment
Abstract, some concepts like shattering were taught as if students were assumed to know about them previously. Contents in the textbook were a little too abstract to understand as well. Assignments and lecture notes could have been better prepared and coordinated before releasing them to students. Having taken a few other similar modules in Machine Learning from Statistics, it can be quite a difficult task having to relearn certain concepts in a slightly different perspective (like regularization) from those commonly used in Statistical Learning textbooks.
Very poorly planned, the difference between the lecture content and the tutorial_xam questions is too great. Also, tough questions like proving should not be given such a high weightage in any exam.
the way it is taught.
Late upload of materials
i had three paragraphs of complaints, but essentially they just boil down to this: shitty and incompetent
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Severe lack of preparation for lectures, tutorials and assignments. Very delayed feedback. Lectures are similar to Caltech's, but Caltech's lectures are able to succinctly and efficiently convey a greater amount of material within the same time frame. Tutorials and assignments are horrendously unclear, and littered with mistakes, wasting precious time attempting to understand the wrong concept or to find out what is required in the assignements. Module learning outcomes are achieved due to research from external sources, but at the expense of a lot of wasted time and effort, which could have been more efficiently allocated if the module is structured better
If you fall behind, it is hard to catch up
Too much mathematics.
Lectures were to repetitive of Yaser's video lectures. Should switch to flipped classroom format.
very un-organized.
Too fast paced, too much info in each lecture.
Given only 13 weeks of lectures, the amount of materials covered was too much. Not enough time was given to really appreciate each algorithm covered unless it was used in homework.
Terrible planning of the module. Unclear instructions on homework and assignments. There is no clear requirement of what is expected from us.
Reduce difficulty of tutorials. Make them practical lessons instead so that we would better be able to apply the algorithms since we're more likely to use toolboxes than to actually implement them anyway.
Requires more math knowledge than what is listed in pre-requisites.
Graded course. It should be the research module instead. Because AI is research area.
The fact that I learn better watching the same version on YouTube.
Frequent revision to lecture slides which need to be re-printed. Felt that tutorials were not relevant and optimal use of my time to try. Discourage after week 3 because the questions were too tough and I could not really solve after studying lecture notes. Perhaps there could be a variety of simple problems to revise knowledge and tougher questions for extended application?
The module is intensive. The lectures could be clearer and better-paced.
Incredibly hard to understand
The math I think can be further simplified (omission of some details while still giving us enough context on the material). Too much math for CS students.
NIL
Too little feedback and guidance to students
Math
Too mathy at the beginning was discouraging.
Mathematical concepts that are needed in this course need to be mentioned during week 0 or something so that people can revise and be more prepared for serious math stuff. Pretty difficult module, tutorials are hard and I cannot apply my knowledge to new questions very well, especially proofs. I mean, even the TAs don't entirely understand the concepts (not their fault though, because this module is pretty hard)!

Comment
Concepts are very hard to grasp. The freedom to choose between problem sets for assignment 3 ironically becomes a dilemna. Furthermore, team collaboration for assignment 3 was left entirely up to inidividuals, with no clear seperation between individual submissions and team submissions.
Many terms are simply thrown around without much explanations which makes lectures hard to keep track once you get lost. Many topics are condensed per lecture, making the pace too fast to keep up with. Lectures and tutorials are too abstract and dry to maintain any interest in them.
Hard