

## Q530 Syllabus

### Class Time and Place

2:30-3:45pm TR PY 111

### Instructor Information

Instructor: Professor Chen Yu

Office: PY 355

Office Hours: Thursday, 3:45-5:45pm

Office Phone: 856-0838

Email Address: [chenyu@indiana.edu](mailto:chenyu@indiana.edu)

Home Page: <http://www.indiana.edu/~dll/>

**Course Homepage:** <http://www.indiana.edu/~dll/q530.html>

### Readings

There is no textbook. The reading assignments will consist of a few tutorials available on the web and a few papers.

### Evaluation and Grading

Homework	20%
Project	45%
Final Project	25%(written) + 10%(oral)

### Grading Scale:

A+:	100.00% - 96.66%
A:	96.65% - 93.33%
A-:	93.32% - 90.00%
B+:	89.99% - 86.66%
B:	86.65% - 83.33%
B-:	83.32% - 80.00%
C+:	79.99% - 76.66%
C:	76.65% - 73.33%
C-:	73.32% - 70.00%
D+:	69.99% - 66.66%
D:	66.65% - 63.33%
D-:	63.32% - 60.00%
F:	59.99% and below

### Homework/Project Requirement

(1) Code

It should be documented. If it's a joint project, also indicate who wrote which parts.

(2) Report

It should have three parts.

- Goals  
Describe what the program is supposed to do and (very briefly) how this fits into cognitive science.
- Program  
Describe the organization of the program, emphasizing what would not be obvious from the comments in your code.
- Evaluation and Analysis  
If it is a modeling project, present your results with a discussion about how well the method works as what you expected and the potential ways to improve the performance.

### **How to Succeed in the Course**

(1) Class attendance is mandatory. Class participation is expected and will play a part in your grade. ASK QUESTIONS!

(2) Expect to work hard in this course. Don't count on being able to do things the night before, I won't accept late-discovered problems as an excuse.

(3) Collaboration is encouraged. You can share ideas, but not code or write-ups.

### **Q530 – Schedule**

Note: Schedule may be subject to change, including assignment due dates. Any changes will be announced in class and/or via email.

Week	Dates	Topics	Homework, Projects
1	08/29 08/31	Introduction Matlab Programming	Hw 1 posted
2	09/05 09/07	Matlab Programming	Hw 1 due/Hw 2 posted
3	09/12 09/14	Image Processing Using Matlab PCA	Hw 2 due/Project 1 posted
4	09/19 09/21	Project 1 Perl Programming	
5	09/26 09/28	Perl Programming	Project 1 due/ Hw 3 posted
6	10/03 10/05	Natural Language Processing Project 2	Hw 3 due / Project 2 posted
7	10/10 10/12	Operating Systems	
8	10/17 10/19	C Programming	Project 2 due/Hw 4 posted
9	10/24 10/26	C programming	Hw 4 due / Project 3 posted
10	10/31 11/02	Computer Networks	

11	11/07 11/09	Modeling I: Generative Models	Project 3 due
12	11/14 11/16	Modeling II: Dynamic Programming Hidden Markov Models	Final Project posted
13	11/21 11/23	Modeling III: Isomap Thanksgiving	
14	11/28 11/30	Modeling IV: Support Vector Machines	
15	12/05 12/07	Student presentations	Final Project due