

Virginia Tech
Fall 2016 VT Student Perceptions of Teaching (SPOT)

Course: ECE_5554_82733_201609: Computer Vision-ECE_5554_82733_201609

Instructor: Jia-Bin Huang *

1 - Please indicate the extent to which you agree or disagree with each of the following statements:

1A - The instructor was well prepared.

Jia-Bin Huang

Response Option	Weight	Frequency	Percent	Percent Responses					Means					
Strongly disagree	(1)	0	0%						5.39		5.16		5.10	
Disagree	(2)	0	0%											
Somewhat disagree	(3)	1	3.57%											
Somewhat agree	(4)	5	17.86%											
Agree	(5)	4	14.29%											
Strongly agree	(6)	18	64.29%											
				0	25	50	75	100	Instructor	College		Department		
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median			
28/36 (77.78%)	5.39	0.92	6.00	19,232	5.16	1.10	5.00	3,430	5.10	1.13	5.00			

1 - Please indicate the extent to which you agree or disagree with each of the following statements:

1B - The instructor presented the subject matter clearly.

Jia-Bin Huang

Response Option	Weight	Frequency	Percent	Percent Responses					Means					
Strongly disagree	(1)	0	0%						4.54		4.91		4.83	
Disagree	(2)	2	7.14%											
Somewhat disagree	(3)	3	10.71%											
Somewhat agree	(4)	9	32.14%											
Agree	(5)	6	21.43%											
Strongly agree	(6)	8	28.57%											
				0	25	50	75	100	Instructor	College		Department		
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median			
28/36 (77.78%)	4.54	1.23	4.50	19,146	4.91	1.27	5.00	3,406	4.83	1.33	5.00			

1 - Please indicate the extent to which you agree or disagree with each of the following statements:

1C - The instructor provided feedback intended to improve my course performance.

Jia-Bin Huang

Response Option	Weight	Frequency	Percent	Percent Responses					Means					
Strongly disagree	(1)	0	0%						5.11		4.82		4.70	
Disagree	(2)	1	3.57%											
Somewhat disagree	(3)	0	0%											
Somewhat agree	(4)	8	28.57%											
Agree	(5)	5	17.86%											
Strongly agree	(6)	14	50%											
				0	25	50	75	100	Instructor	College		Department		
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median			
28/36 (77.78%)	5.11	1.07	5.50	19,153	4.82	1.33	5.00	3,412	4.70	1.39	5.00			

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Instructor: Jia-Bin Huang *

1 - Please indicate the extent to which you agree or disagree with each of the following statements:

1D - The instructor fostered an atmosphere of mutual respect.

Jia-Bin Huang

Response Option	Weight	Frequency	Percent	Percent Responses					Means					
Strongly disagree	(1)	0	0%						5.61		5.25		5.13	
Disagree	(2)	0	0%											
Somewhat disagree	(3)	0	0%											
Somewhat agree	(4)	3	10.71%											
Agree	(5)	5	17.86%											
Strongly agree	(6)	20	71.43%											
				0	25	50	75	100	Instructor	College		Department		
Return Rate	Mean	STD	Median	College			Department			Mean	STD	Median		
28/36 (77.78%)	5.61	0.69	6.00	19,139			3,403			5.13	1.18	5.00		

1 - Please indicate the extent to which you agree or disagree with each of the following statements:

1E - Overall, the instructor's teaching was effective.

Jia-Bin Huang

Response Option	Weight	Frequency	Percent	Percent Responses					Means					
Strongly disagree	(1)	0	0%						4.70		4.89		4.82	
Disagree	(2)	2	7.41%											
Somewhat disagree	(3)	2	7.41%											
Somewhat agree	(4)	8	29.63%											
Agree	(5)	5	18.52%											
Strongly agree	(6)	10	37.04%											
				0	25	50	75	100	Instructor	College		Department		
Return Rate	Mean	STD	Median	College			Department			Mean	STD	Median		
27/36 (75%)	4.70	1.27	5.00	19,045			3,392			4.82	1.36	5.00		

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Instructor: Jia-Bin Huang *

2 - 2A - What did the instructor do that most helped in your learning?

Jia-Bin Huang

- Discussion Forums
- The professor did a good job of describing how the individual techniques discussed in the class fit into the larger computer vision picture.
- The demos at the start of the lecture were good and motivating to learn the topic. Also the office hours helped a lot. Thanks a lot to the professor, who held office hours even on a holiday when the homework submission was due - really understands and tries to help the students understand.
- Good homework stucture
- The discussion board on Piazza is really helpful.
- Provided different sources
- He held two office hour, and answered my questions clearly and detailedly during the time.
- Lectures
- explain algorithms well
- Explained the State of the art in each topic. Gave very relevant assignments that improved my understanding. Used slides that contained a lot of examples that helped understand the concepts better
- Have multiple detailed assignments to improve understanding
- Provided good help on the homework assignments
- Good slides, a lot of homework.
- He gave interesting, practical demonstrations every class which made the classes interesting.
- The homeworks were super helpful to get the fundamentals clear
- Gave real world examples of material covered in class
- The sides were elaborate which is a very good thing.
- Great slide preparation, although many of the algorithms we had to implement weren't covered in enough depth. The recaps at the end of each section were very helpful.
- Homeworks and recent developments
- It was very interesting to see live demos of algorithms taking real time feed and generating accurate results
- Well prepared course content covering the breadth and depth of the topic
- Real world examples and use cases

3 - Please indicate the extent to which you agree or disagree with each of the following statements:

3A - I have a deeper understanding of the subject matter as a result of this course.

Response Option	Weight	Frequency	Percent	Percent Responses					Means		
Strongly disagree	(1)	0	0%						5.14	5.00	4.98
Disagree	(2)	0	0%								
Somewhat disagree	(3)	0	0%								
Somewhat agree	(4)	7	25%								
Agree	(5)	10	35.71%								
Strongly agree	(6)	11	39.29%								
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median
28/36 (77.78%)	5.14	0.80	5.00	15,345	5.00	1.15	5.00	2,639	4.98	1.17	5.00

3 - Please indicate the extent to which you agree or disagree with each of the following statements:

3B - My interest in the subject matter was stimulated by this course.

Response Option	Weight	Frequency	Percent	Percent Responses					Means		
Strongly disagree	(1)	0	0%						5.04	4.71	4.67
Disagree	(2)	0	0%								
Somewhat disagree	(3)	3	11.11%								
Somewhat agree	(4)	5	18.52%								
Agree	(5)	7	25.93%								
Strongly agree	(6)	12	44.44%								
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median
27/36 (75%)	5.04	1.06	5.00	15,296	4.71	1.38	5.00	2,631	4.67	1.41	5.00

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4 - 4A - What could you have done to be a better learner?

- Allocate more time for this course
- I could have studied the posted slides after the lecture to solidify my understanding of the material.
- Had I learned Matlab prior to this course, could have saved some time in doing homeworks.
- more theory based coding
- Started the homework early and put more efforts into the extra credit part.
- I tried to implement the knowledge and techniques that I learned in this class to my final project which was related to my research work.
- Teaching could have been better and example code would help a lot.
- revise the content
- I could have gone through the lecture material/topic in advance, before attending each lecture, so that I would be able to relate to the concepts better
- I could have read more references and additional material to get a more overall understanding I feel
- Taken better notes
- If the TA knew the stuff better, or there are more TAs
- Spent more time on the project
- Had more time to dedicate to assignments and lecture material
- Displaying more sincerity towards the course.
- Concepts are more abstract, and less detailed. So, it would be better to get deeper insights of concepts with board and marker than ppt and laser pointer.
- Attended more lectures
- Implement more applications based on concepts learned in this class.
- -

5 - 5A - Please add any additional comments regarding the course and/or instructor here:

Jia-Bin Huang

- The lectures became hard to follow when the instructor delved deep into the math in class. I couldn't follow the math, and as a result became disengaged from the material. Later, I had to re-learn the math for the homework problems, which involved going through the lectures on my own in order to understand how things were derived. In general, going through complex math concepts in class was ineffective for me -- I think another method for presenting the math would have been more effective.
- Couple of feedback points for the instructor: 1. Please use a board and marker and write down while explaining equations or derivations or matrices and not read out of PPT. Use writing as much as possible even for drawing rough stick figures instead of making models and gestures in air with hand. At the end of the classes the writing was started but it could have been used more. 2. Dive deep into concepts and not skim through at surface - even if this results in reducing the number of algorithms to be taught in the course. In essence, pick a handful of important concepts and explain in depth rather than introducing too many concepts in a lecture and trying to skim through all. 3. Homeworks were of good standard and I felt challenging to solve them but felt the teaching in class was not sufficient enough to solve the homework. Every time I found myself watching other video lectures on internet to understand the concepts to solve the homework, please try to enhance the in class teaching of the material.
- very well prepared and very punctual
- The lecture is still too vague and more like a introduction course. Sometimes we should focus more on the implementation of the algorithms. Anyway, Dr. Huang is a kind and patient instructor. You can always seek for him and TA for help.
- This course is quite helpful, and needs much time to review the knowledge after class and do the homework.
- If there was git hubs that showed examples and how to create things that would help a lot.
- Nice Teaching Style but sometimes a bit too fast
- He is a good teacher
- Thanks for the opportunity to take this interestin course. I looked forward to each lecture
- The course content was too much and the pace of course was at some point too high.It would be awesome if something could be done about that. The course was slightly more stressful with tough assignments, project, poster, webpage,...
- Great teacher! I loved the jokes interspersed throughout the slides. The only thing I would say is that the workload was MUCH too high. Even for a grad class, the amount of work expected was ridiculous. Each homework was a project, and there was still a final project, final report, and final?? Both the professor and the subject material were interesting enough for me to keep going in the class, but for future classes, I would highly suggest only having 4 homeworks (or 5 with fewer problems) and not doing both a final project and final.
- Homeworks were difficult for beginners as it is an introduction to computer vision course.
- He is a very good communicator and a very accommodating professor.
- -
- Lectures seems to fast, atleast for people who are new to vision. Should take 1st class only for linear algebra concepts. Because the entire subject lies on this. If the time does not permit to discuss all topics in detail, then reduce the course content and discuss them in detail.

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6 - 6A - How would you rate the physical environment in which you took this class based upon your ability to see, hear, concentrate, and participate?

Response Option	Weight	Frequency	Percent	Percent Responses			Means				
Very Bad	(1)	0	0%				5.36	5.03	4.91		
Bad	(2)	0	0%								
Poor	(3)	0	0%								
Fair	(4)	4	14.29%								
Good	(5)	10	35.71%								
Very Good	(6)	14	50%								
				0	25	50	75	100	Instructor	College	Department
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median
28/36 (77.78%)	5.36	0.73	5.50	15,233	5.03	1.01	5.00	2,610	4.91	1.04	5.00

7 - 7A - Please add any comments about the physical environment here:

- The chairs were slightly uncomfortable, as they are angled a little too far forward.
- Projector sometimes does not seem to work properly in this classroom.
- Good
- The physical environment is good.
- N/A
- An excellent classroom, well equipped to suit the nature of the course
- The physical environment is good.
- Great class room and new building
- Great technology and enables interactive classroom environment
- -

8 - Please indicate the extent to which you agree or disagree with each of the following statements:

I improved my ability to problem solve.

Response Option	Weight	Frequency	Percent	Percent Responses			Means				
Strongly disagree	(1)	0	0%				5.21	4.92	4.90		
Disagree	(2)	0	0%								
Somewhat disagree	(3)	0	0%								
Somewhat agree	(4)	4	14.29%								
Agree	(5)	14	50%								
Strongly agree	(6)	10	35.71%								
				0	25	50	75	100	Instructor	College	Department
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median
28/36 (77.78%)	5.21	0.69	5.00	15,313	4.92	1.11	5.00	2,633	4.90	1.11	5.00

8 - Please indicate the extent to which you agree or disagree with each of the following statements:

The textbook or course readings made a valuable contribution to my learning.

Response Option	Weight	Frequency	Percent	Percent Responses			Means				
Strongly disagree	(1)	0	0%				4.43	4.43	4.46		
Disagree	(2)	4	14.29%								
Somewhat disagree	(3)	3	10.71%								
Somewhat agree	(4)	6	21.43%								
Agree	(5)	7	25%								
Strongly agree	(6)	8	28.57%								
				0	25	50	75	100	Instructor	College	Department
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median
28/36 (77.78%)	4.43	1.40	5.00	15,210	4.43	1.47	5.00	2,618	4.46	1.43	5.00

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8 - Please indicate the extent to which you agree or disagree with each of the following statements:

The objectives of the course were clearly explained.

Response Option	Weight	Frequency	Percent	Percent Responses				Means					
Strongly disagree	(1)	0	0%					5.04		4.98		4.97	
Disagree	(2)	0	0%										
Somewhat disagree	(3)	1	3.57%										
Somewhat agree	(4)	7	25%										
Agree	(5)	10	35.71%										
Strongly agree	(6)	10	35.71%										
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median		
28/36 (77.78%)	5.04	0.88	5.00	15,299	4.98	1.14	5.00	2,624	4.97	1.11	5.00		

8 - Please indicate the extent to which you agree or disagree with each of the following statements:

The out-of-class assignments were educationally valuable.

Response Option	Weight	Frequency	Percent	Percent Responses				Means					
Strongly disagree	(1)	0	0%					5.39		4.94		4.97	
Disagree	(2)	0	0%										
Somewhat disagree	(3)	1	3.57%										
Somewhat agree	(4)	3	10.71%										
Agree	(5)	8	28.57%										
Strongly agree	(6)	16	57.14%										
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median		
28/36 (77.78%)	5.39	0.83	6.00	15,205	4.94	1.21	5.00	2,614	4.97	1.20	5.00		

9 - The instructor related theories and concepts to practical issues.

Jia-Bin Huang

Response Option	Weight	Frequency	Percent	Percent Responses				Means					
Strongly disagree	(1)	0	0%					5.41		5.11		5.03	
Disagree	(2)	0	0%										
Somewhat disagree	(3)	0	0%										
Somewhat agree	(4)	3	11.11%										
Agree	(5)	10	37.04%										
Strongly agree	(6)	14	51.85%										
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median		
27/36 (75%)	5.41	0.69	6.00	18,775	5.11	1.10	5.00	3,315	5.03	1.17	5.00		

10 - Compared to other courses at this level, the difficulty of this course is:

Response Option	Weight	Frequency	Percent	Percent Responses				Means					
much less than average	(1)	0	0%					4.54		3.91		3.91	
slightly less than average	(2)	0	0%										
average	(3)	2	7.14%										
slightly more than average	(4)	10	35.71%										
much more than average	(5)	15	53.57%										
I have not taken other courses at this level	(6)	1	3.57%										
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median		
28/36 (77.78%)	4.54	0.69	5.00	2,619	3.91	1.15	4.00	2,619	3.91	1.15	4.00		

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11 - The grade I expect in this course is:												
Response Option		Weight	Frequency	Percent	Percent Responses			Means				
not applicable		(1)	0	0%								
pass		(2)	0	0%								
F		(3)	0	0%								
D		(4)	0	0%								
C		(5)	0	0%								
B		(6)	0	0%								
A		(7)	28	100%								
0 25 50 75 100 Instructor College Department												
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median	
28/36 (77.78%)	7.00	0.00	7.00	2,618	6.15	1.17	6.00	2,618	6.15	1.17	6.00	

12 - Approximately how many hours per week outside of class do you spend on homework, reading, and projects for this course?												
Response Option		Weight	Frequency	Percent	Percent Responses			Means				
0-2		(1)	0	0%								
3-5		(2)	1	3.57%								
6-9		(3)	6	21.43%								
10-14		(4)	8	28.57%								
15 or more		(5)	13	46.43%								
0 25 50 75 100 Instructor College Department												
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median	
28/36 (77.78%)	4.18	0.90	4.00	2,628	2.88	1.17	3.00	2,628	2.88	1.17	3.00	

13 - At the end of this course, how do I rate my ability to: Contrast common image formation models.												
Response Option		Weight	Frequency	Percent	Percent Responses			Means				
Poor		(1)	0	0%								
Fair		(2)	4	14.29%								
Good		(3)	15	53.57%								
Excellent		(4)	9	32.14%								
N/A		(0)	0	0%								
0 25 50 75 100 Instructor College Department												
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median	
28/36 (77.78%)	3.18	0.67	3.00	28	3.18	0.67	3.00	28	3.18	0.67	3.00	

13 - At the end of this course, how do I rate my ability to: Implement various ways of extracting features from images.												
Response Option		Weight	Frequency	Percent	Percent Responses			Means				
Poor		(1)	0	0%								
Fair		(2)	3	10.71%								
Good		(3)	14	50%								
Excellent		(4)	11	39.29%								
N/A		(0)	0	0%								
0 25 50 75 100 Instructor College Department												
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median	
28/36 (77.78%)	3.29	0.66	3.00	28	3.29	0.66	3.00	28	3.29	0.66	3.00	

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13 - At the end of this course, how do I rate my ability to:

Segment an image into meaningful regions.

Response Option	Weight	Frequency	Percent	Percent Responses			Means				
Poor	(1)	0	0%								
Fair	(2)	3	10.71%								
Good	(3)	17	60.71%								
Excellent	(4)	8	28.57%								
N/A	(0)	0	0%								
				0	25	50	75	100	Instructor	College	Department
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median
28/36 (77.78%)	3.18	0.61	3.00	28	3.18	0.61	3.00	28	3.18	0.61	3.00

13 - At the end of this course, how do I rate my ability to:

Derive the theory behind multi-view geometry.

Response Option	Weight	Frequency	Percent	Percent Responses			Means				
Poor	(1)	1	3.57%								
Fair	(2)	13	46.43%								
Good	(3)	10	35.71%								
Excellent	(4)	4	14.29%								
N/A	(0)	0	0%								
				0	25	50	75	100	Instructor	College	Department
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median
28/36 (77.78%)	2.61	0.79	2.50	28	2.61	0.79	2.50	28	2.61	0.79	2.50

13 - At the end of this course, how do I rate my ability to:

Implement various approaches to recognizing objects and scenes in images.

Response Option	Weight	Frequency	Percent	Percent Responses			Means				
Poor	(1)	1	3.57%								
Fair	(2)	5	17.86%								
Good	(3)	10	35.71%								
Excellent	(4)	12	42.86%								
N/A	(0)	0	0%								
				0	25	50	75	100	Instructor	College	Department
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median
28/36 (77.78%)	3.18	0.86	3.00	28	3.18	0.86	3.00	28	3.18	0.86	3.00

13 - At the end of this course, how do I rate my ability to:

Implement techniques for processing video sequences.

Response Option	Weight	Frequency	Percent	Percent Responses			Means				
Poor	(1)	2	7.14%								
Fair	(2)	9	32.14%								
Good	(3)	11	39.29%								
Excellent	(4)	6	21.43%								
N/A	(0)	0	0%								
				0	25	50	75	100	Instructor	College	Department
Return Rate	Mean	STD	Median	College	Mean	STD	Median	Department	Mean	STD	Median
28/36 (77.78%)	2.75	0.89	3.00	28	2.75	0.89	3.00	28	2.75	0.89	3.00