

I N I T I A L C O U R S E D A T A

Prepared by:

Jason Montgomery, NCARB LEED AP
Assistant Professor

Course Information:*Department of Architectural Technology*

ARCH 1130 Building Technology I

5-6 Sections / Semester

20-24 Students / Section

ARCH 1230 Building Technology II

4-5 Sections / Semester

18-22 Students / Section

Stakeholder Information:

Chair: Shelley Smith
Associate Professor

Course Coordinator: Jason Montgomery
Assistant Professor

Course Faculty Spring 2015:

ARCH 1130

Robert Zagaroli
Associate Professor

Lynn Gernert
Adjunct Assistant Professor

Quoc Grace
Adjunct Lecturer

Stuart Peaslee
Adjunct Lecturer?

Anthony Romeo
Adjunct Lecturer

Other Regular Faculty:

Michelle Todd
Adjunct Assistant Professor

ARCH 1230

Timothy Sudweeks
Adjunct Assistant Professor

Sandeep Sikka
Adjunct Lecturer

Michael Loo
Adjunct Lecturer

Michael Mitchell
Adjunct Lecturer?

Barbara Mishara
Assistant Professor

Likely Course Faculty Fall 2015:

ARCH 1130

Robert Zagaroli
Associate Professor

Lynn Gernert
Adjunct Assistant Professor

Quoc Grace
Adjunct Lecturer

Stuart Peaslee
Adjunct Lecturer?

Anthony Romeo
Adjunct Lecturer

Jason Montgomery
Assistant Professor

ARCH 1230

Timothy Sudweeks
Adjunct Assistant Professor

Sandeep Sikka
Adjunct Lecturer

Michael Loo
Adjunct Lecturer

Barbara Mishara
Assistant Professor

Jason Montgomery
Assistant Professor

Other Stakeholders:

BUILDING TECHNOLOGY COMMITTEE

Paul King
Associate Professor

Alexander Aptekar
Assistant Professor

Barbara Mishara
Assistant Professor

Jason Montgomery
Assistant Professor

Course "Before" Redesign

Course Syllabus

ARCH 1130:

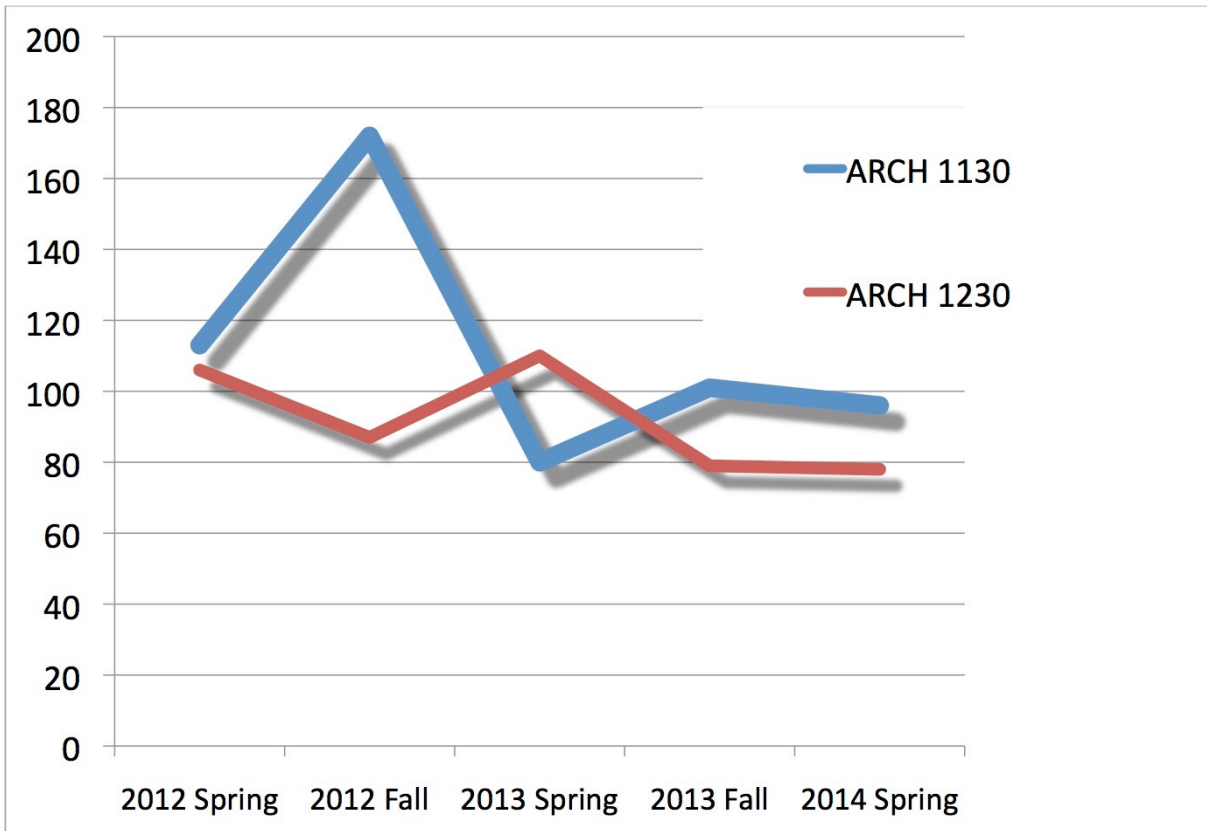
<https://openlab.citytech.cuny.edu/arch1130/files/2011/06/Arch-1130-Building-Tech-I-fall-2014.pdf>

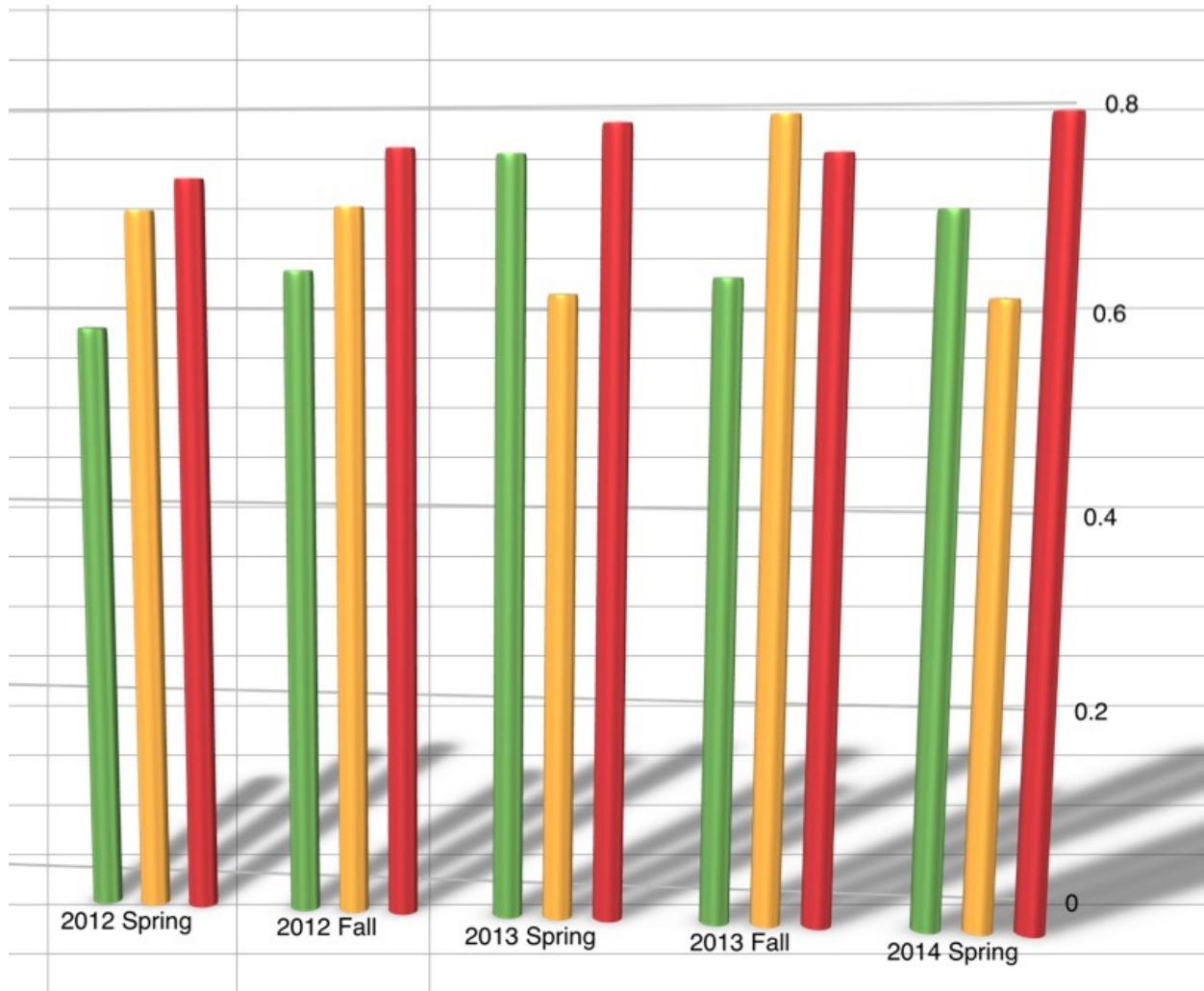
ARCH 1230:

<https://openlab.citytech.cuny.edu/arch-1230/files/2013/08/Arch-1230-Building-Tech-II-spring-2015-reduced.pdf>

Course Data

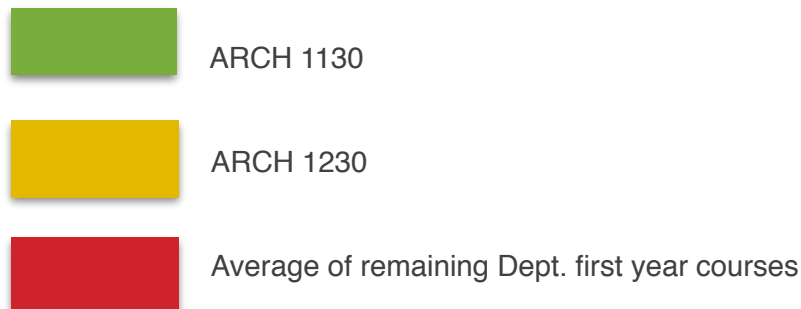
ARCH 1130 + ARCH 1230 ENROLLMENT

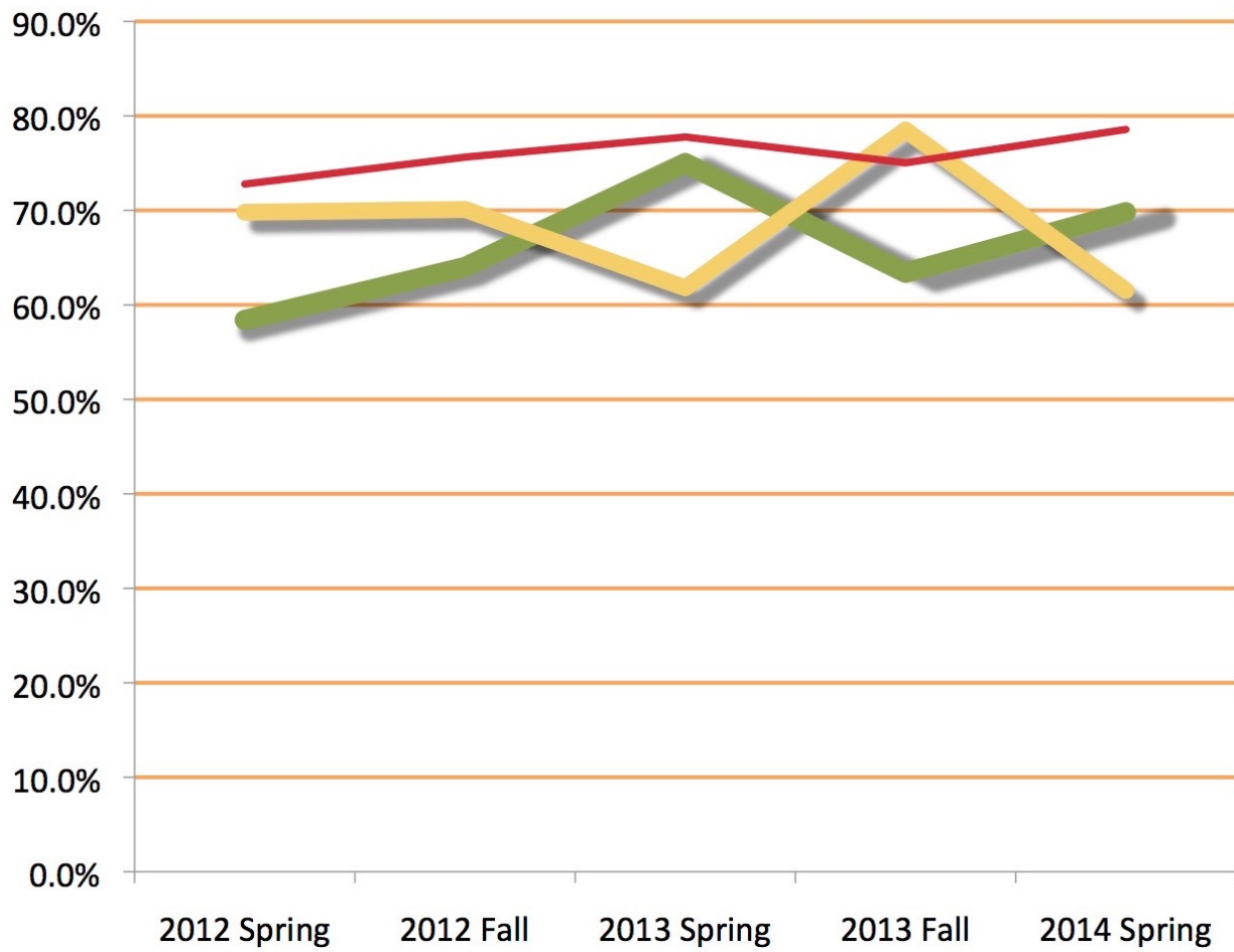




STUDENT PERFORMANCE ANALYSIS (from AIR database)

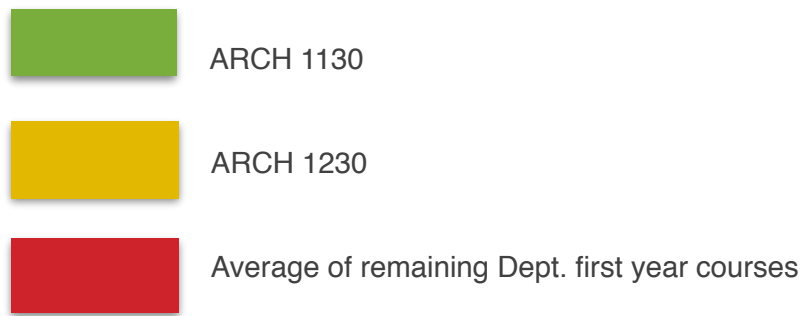
Percentage of Students passing with the required grade of C or higher in





STUDENT PERFORMANCE ANALYSIS (from AIR database)

Percentage of Students passing with the required grade of C or higher in



STUDENT SURVEY on Course Content + Pedagogy ARCH 1230 (compiled over 2 semesters, 52 respondents)

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree	Total	Weighted Average
2-d dimensional drawings are more clear and understandable than 3-d drawings.	3.92% 2	23.53% 12	37.25% 19	29.41% 15	5.88% 3	51	3.10
3-d dimensional drawings are more clear and understandable than 2-d drawings.	6.00% 3	6.00% 3	26.00% 13	42.00% 21	20.00% 10	50	3.64
The 3-d drawings helped me understand the 2-d drawings.	6.12% 3	0.00% 0	14.29% 7	53.06% 26	26.53% 13	49	3.94
The 2-d drawings helped me understand the 3-d drawings.	0.00% 0	4.08% 2	20.41% 10	61.22% 30	14.29% 7	49	3.86
3-d drawings show my understanding of how the building is put together.	4.26% 2	0.00% 0	8.51% 4	42.55% 20	44.68% 21	47	4.23
2-d drawings show my understanding of how the building is put together.	2.00% 1	8.00% 4	14.00% 7	58.00% 29	18.00% 9	50	3.82
2-d drawing allowed me to investigate the details of the building.	4.08% 2	6.12% 3	8.16% 4	48.98% 24	32.65% 16	49	4.00
3-d drawing allowed me to investigate the details of the building.	6.12% 3	2.04% 1	10.20% 5	55.10% 27	26.53% 13	49	3.94

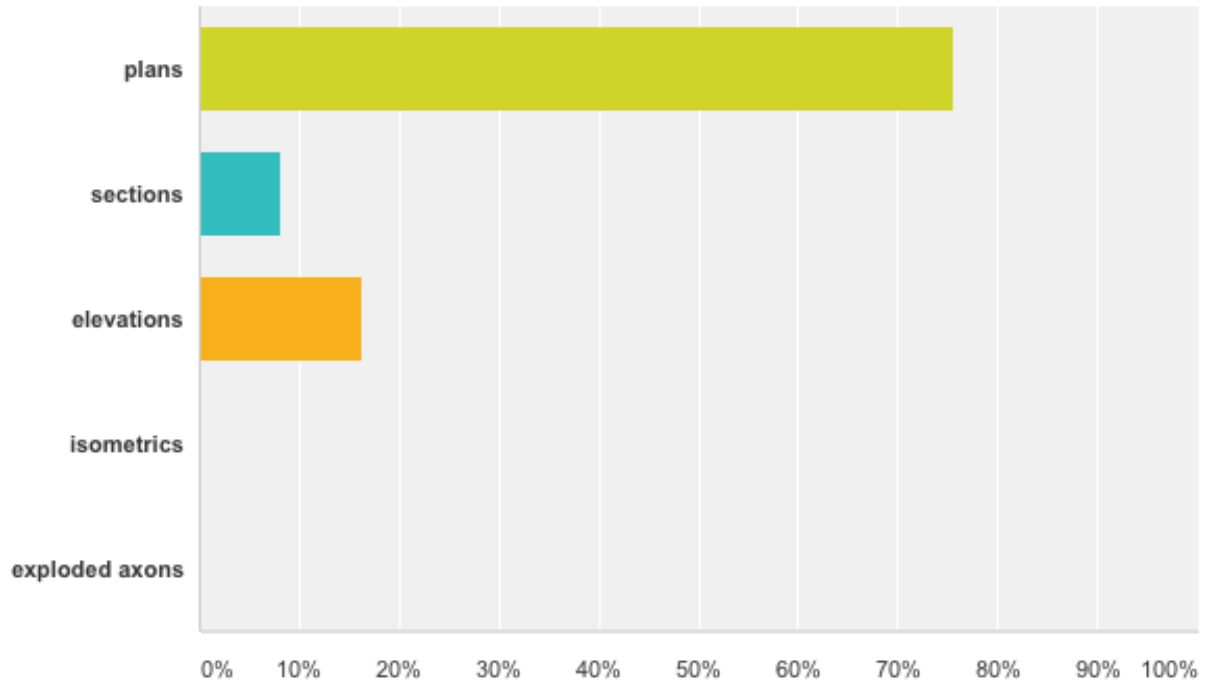
EXAMINING PEDAGOGY ON 2-D AND 3-D DRAWING

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree	N/A	Total	Weighted Average
Using an actual building for the case study enhances my learning.	7.84% 4	0.00% 0	3.92% 2	43.14% 22	43.14% 22	1.96% 1	51	4.16
The Yale Center for British Art is a useful case study.	7.84% 4	3.92% 2	5.88% 3	27.45% 14	52.94% 27	1.96% 1	51	4.16
I was inspired to study the Yale Center for British Art.	5.88% 3	5.88% 3	15.69% 8	45.10% 23	25.49% 13	1.96% 1	51	3.80
The Yale Center for British Art is a great building.	7.84% 4	1.96% 1	21.57% 11	33.33% 17	33.33% 17	1.96% 1	51	3.84
I valued the fieldtrip to New Haven.	3.92% 2	0.00% 0	5.88% 3	27.45% 14	54.90% 28	7.84% 4	51	4.40
I would recommend next semesters students to go on the fieldtrip to New Haven.	5.88% 3	0.00% 0	5.88% 3	25.49% 13	56.86% 29	5.88% 3	51	4.35
The fieldtrip to New Haven changed me and my view of architecture in a postivie way.	4.00% 2	2.00% 1	10.00% 5	32.00% 16	40.00% 20	12.00% 6	50	4.16

EXAMINING IMPACT OF PLACE-BASE LEARNING / CASE STUDY

Which type of drawing to you find easiest to do?

Answered: 49 Skipped: 3

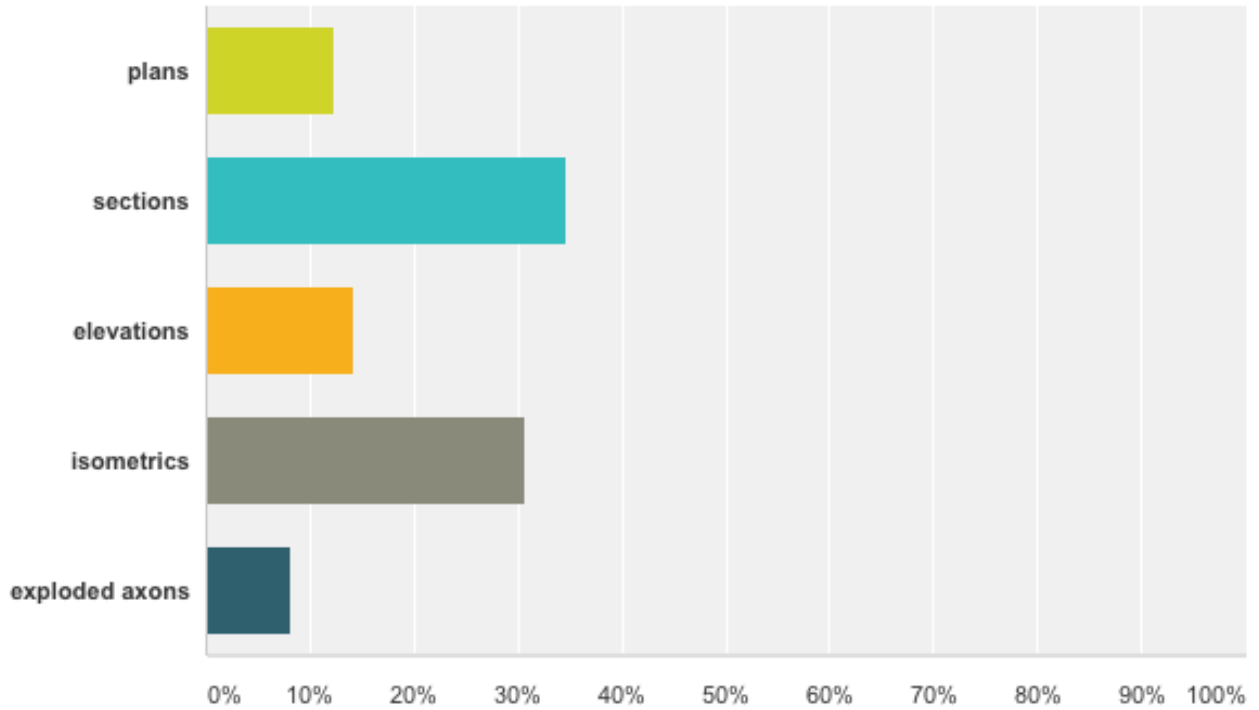


Answer Choices	Responses
plans	75.51% 37
sections	8.16% 4
elevations	16.33% 8
isometrics	0.00% 0
exploded axons	0.00% 0
Total	49

EXAMINING DRAWING PREFERENCES

Which type of drawings to enjoy doing the most?

Answered: 49 Skipped: 3



Answer Choices	Responses
plans	12.24% 6
sections	34.69% 17
elevations	14.29% 7
isometrics	30.61% 15
exploded axons	8.16% 4
Total	49

EXAMINING DRAWING PREFERENCES

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree	Total	Weighted Average
Working on a team enhanced my learning in this class.	6.82% 3	11.36% 5	27.27% 12	34.09% 15	20.45% 9	44	3.50
My team was well organized.	2.38% 1	16.67% 7	35.71% 15	26.19% 11	19.05% 8	42	3.43
My team communicated well.	0.00% 0	12.20% 5	34.15% 14	26.83% 11	26.83% 11	41	3.68
My team used AutoCAD efficiently to share work and avoid duplication of tasks.	4.65% 2	11.63% 5	37.21% 16	30.23% 13	16.28% 7	43	3.42
I was happy the way we formed the teams at the beginning of the semester.	0.00% 0	7.14% 3	42.86% 18	33.33% 14	16.67% 7	42	3.60
I hope to work on teams again in future classes.	4.55% 2	9.09% 4	34.09% 15	34.09% 15	18.18% 8	44	3.52

EXAMINING RESPONSE TO TEAM ASSIGNMENTS

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree	Total	Weighted Average
▼ The Allen and Iano Fundamentals of Building Construction is a useful textbook for this course.	2.00% 1	4.00% 2	16.00% 8	54.00% 27	24.00% 12	50	3.94
▼ The Ching Building Construction Illustrated is a useful textbook for this course.	3.92% 2	0.00% 0	3.92% 2	37.25% 19	54.90% 28	51	4.39
▼ The readings are too demanding.	1.96% 1	33.33% 17	31.37% 16	25.49% 13	7.84% 4	51	3.04
▼ The readings are appropriate and meaningful to my education.	1.96% 1	0.00% 0	13.73% 7	50.98% 26	33.33% 17	51	4.14
▼ The reading strategies discussion and worksheets made had a positive impact on how I study.	6.00% 3	4.00% 2	22.00% 11	40.00% 20	28.00% 14	50	3.80
▼ I wish we had a different text book for this course.	17.65% 9	33.33% 17	41.18% 21	3.92% 2	3.92% 2	51	2.43
▼ The Edward Ford Five Houses Ten Details reading is too confusing.	4.17% 2	10.42% 5	68.75% 33	4.17% 2	12.50% 6	48	3.10
▼ The Five Houses Ten Details reading is a good exposure to architectural theory.	4.08% 2	0.00% 0	53.06% 26	32.65% 16	10.20% 5	49	3.45
▼ Architectural theory is important to study to be a successful architect.	0.00% 0	0.00% 0	22.00% 11	32.00% 16	46.00% 23	50	4.24
▼ I valued the seminar discussion on architectural theory.	6.00% 3	0.00% 0	34.00% 17	24.00% 12	36.00% 18	50	3.84
▼ How buildings are detailed is an expression of architectural theory.	4.00% 2	0.00% 0	26.00% 13	36.00% 18	34.00% 17	50	3.96

Course

EXAMINING RESPONSE TO TEXTBOOK AND THEORETICAL SEMINAR/MODULE AS PART OF CLASS

Optional Question: What would you change about this course?

Answered: 23 Skipped: 29

Responses (23)

Text Analysis

My Categories

PRO FEATURE

Use text analysis to search and categorize responses; see frequently-used words and phrases. To use Text Analysis, upgrade to a GOLD or PLATINUM plan.

Upgrade

[Learn more »](#)

Categorize as... ▾

Filter by Category ▾

Search responses



Showing 23 responses

No Sketch up drawings. The Auto cad is too much already. Sketch up 3-d drawings should be extra credit, and floor plans shouldn't.

12/19/2014 6:06 PM [View respondent's answers](#)

Nothing at all. I learner a lot this semester, compared to the last one.

12/19/2014 6:01 PM [View respondent's answers](#)

Prof. Montgomery is a great great professor! we learned alot and fun at the same time! i loved the way he teach!!!!

12/19/2014 6:00 PM [View respondent's answers](#)

Have teams come together and work on the drawings

12/19/2014 5:51 PM [View respondent's answers](#)

Nothing much, is very easy to understand but the pace is pretty fast and if you miss out you fall behind a lot. So maybe the pace for every lecture.

12/19/2014 5:46 PM [View respondent's answers](#)

no questions.

12/19/2014 5:30 PM [View respondent's answers](#)

I would like we had field trips to a construction site and watch the process of building a project step by step.

i wish we had more than 2 classes a week!!!! Prof. Montgomery is the best!!!!

12/19/2014 3:07 PM [View respondent's answers](#)

some of the student need more assistance in autocad then others so an extra person helping in class would be nice. but the mechanics are an excelent way to go. with an exception of time limit to do quizzes.

12/19/2014 2:56 PM [View respondent's answers](#)

i would demand students to submit the drawings week by week basis or something like that so at the end we are not overwhelmed by all the class and projects. like i m now :D

12/19/2014 2:47 PM [View respondent's answers](#)

The use of SketchUp is great, but not have it as a mandatory part of the class.

12/19/2014 2:45 PM [View respondent's answers](#)

More references for work, such as examples.

12/19/2014 1:43 PM [View respondent's answers](#)

I would concentrate on more drawings of different buildings rather than quiz.

12/19/2014 1:18 PM [View respondent's answers](#)

One thing I would change about the course is the amount of sketch-up assignment given. Due to the time that we spend on the AutoCAD drawings there is not enough time to complete all of the sketch up drawings for the end of the semester.

12/19/2014 11:02 AM [View respondent's answers](#)

I would change the way we learn autocad we should have learn more on autocad

7/2/2014 4:45 PM [View respondent's answers](#)

Exclude team work, more help with the computer programs

6/30/2014 10:21 PM [View respondent's answers](#)

There are too many assignments.

5/21/2014 6:08 PM [View respondent's answers](#)

Having teams to work with at the beginning of learning the software AutoCAD created a serious problem at the beginning to mid semester. Drawing were being changed constantly due to other members' different work styles and opinions.

5/21/2014 5:48 PM [View respondent's answers](#)

have in class work sessions work as a class to get drawings done

5/21/2014 5:15 PM [View respondent's answers](#)

I would like to change the amount of reading assignments, and the amount of minutes given to take a a quiz.

5/21/2014 5:09 PM [View respondent's answers](#)

I think the course is fine the way it is run, however I prefer to do the assignments individually rather than in groups.

5/21/2014 4:58 PM [View respondent's answers](#)

Ok, first of the most important thing is that when we went to the building we didnt have much time to do what we wanted to do. Also we went from drawing straight to auto cad, a little autocad tutoring from our own professor wouldnt hurt. Also try and have like a preset of what the whole files should look like instead of telling the students hey this is what you have to do its due at the end thats it. Overall grade was B-

5/21/2014 4:58 PM [View respondent's answers](#)

the course in general was very informative and intense, I truly enjoyed it, even though it was not easy. Please give up the team work, it's impossible to make irresponsible people to produce the drawings, and I don't feel like my grade should depend on group performance at this point.

5/21/2014 4:56 PM [View respondent's answers](#)

Analysis

My goals for the redesign of this course include:

1. Rebalance the general education and the discipline specific goals of the courses with greater emphasis on general education.
2. Develop greater emphasis on active learning strategies and High Impact Educational Learning Practices.
3. Reconsider tools for learning, including hand drawing versus digital drawing tools.
4. Explore alternative readings/textbook for introduction of technical course content.

The Departments' goals for the redesign of this course include:

1. Improve connections between these courses and the other first year courses.
2. Develop a skills map to clarify the introduction, reinforcement, and mastery of course content.
3. Improve digital skills development.

Things to Consider

The Building Technology Committee will need to review revisions after they are clearly developed. The department Curriculum Committee will also need to review the changes.

The initial changes of both courses will ideally be short of requiring a major curriculum proposal to allow speedy implementation to test their viability. The first focus of change will be delivery methods and pedagogy that are well within the bounds of the existing course outline. These will be leveraged as far as possible to seek the listed course improvements.

After implementation, assessment and curriculum committee review will be required to determine if more significant changes are required. If we determine more significant changes are required, a major curriculum proposal will likely be necessary. I am familiar with the course proposal process and will guide changes through as needed. The timeline for submission would likely be Winter 2016 with College Council approval in Spring 2016 and full implementation in Spring 2017. I will work with the Building Technology Committee to develop any required supporting research and materials for the course proposal.

I will meet with my colleagues teaching Building Technology I later this spring to present the developing changes to them to seek their feedback and comments. We will then meet just before the Fall 2015 semester to coordinate the implementation of the changes. I will also concurrently be meeting with the Building Technology Committee to build support for the changes. The OpenLab coordination site already established will be updated to provide teaching materials to all sections from a central location.

Building Technology II's changes will follow a similar course, but may or may not be implemented immediately. It will likely make sense to introduce these changes in the Spring 2016 after the experience of the Building Technology I changes in the Fall of 2015.

I will work with my colleagues teaching these courses to compile student work, student surveys and reflections, and a rubric to measure the improvement of student learning and the achievement of the learning objectives. We will study these together as a group and then present them to the Building Tech and Curriculum committees.