Architectural Technology Department
Critical Course Assessment Report

Selected Critical Course: ARCH 2300 Architectural Drawing III

AcademicYear 2009-2010; 2010-2011; 2011-2012

Background/Rationale: Architectural drawing courses are the essence of architectural education. This course involves an understanding and application of knowledge, namely, human behavior, materials, assemblies, precedents, structures, codes and graphics. It also requires an ability to image a concept and then be able to communicate it visually, as well as, in written and spoken language.

Assessment Liaison: Alexander Aptekar

Department Assessment Liaison: Jason Montgomery and Barbara Mishara

Assessment Planning: 2009-2010: Assessment planning organized by professors Alexandra Emma Bernadette, Jason Montgomery and Barbara Mishara. They met regularly to work on developing assessment strategies over the course of the 2009-2010 school year.

2010-2011: Assessment planning organized by professors Alexandra Emma Bernadette, Jason Montgomery and Barbara Mishara. They met regularly to work on developing assessment strategies over the course of the 2009-2010 school year. Alexandra Emma Bernadette left the department and university for an opportunity and thus stopped working on the project.

2011-2012: Assessment planning organized by professors Alexander Aptekar, Jason Montgomery and Barbara Mishara. The faculty subcommittee on the building technology sequence also participated and supported the planning process. The group met about every third week to work on this and other projects.

Assessment Measure: Student Learning Outcome #1: Students will be able to coordinate a set of construction documents into a logical, sequential set.
Measure 1: Construction documents: content and organization (using a rubric)
Measure 2: Construction documents: linework and annotation (using a rubric)

Student Learning Outcome #2: Students will be able to transpose drawings demonstrated in class into working drawings.
Measure 1: Students design a stair based on code requirements and given parameters (using a rubric)
Measure 2: Stimulation - Students draw staircase in Autocad at a specified scale (using a rubric)

Assessment Timeline: 2009-2010:

Timeline for Fall 2009:

Selected Critical Course: ARCH 2300 Architectural Drawing III

1 Start assessment process by attending school wide meetings to learn of requirements and techniques (in progress)

2. Faculty selects courses for evaluation. Faculty selected ARCH 2300.

3. Meet with course coordinators to discuss assessment procedures. Discuss program with individual instructors of targeted courses. There are 3 sections of ARCH 2300.

4. Decide on methods of assessment-suggested for ARCH 2300, all quizzes and final set of drawings (Meet with Tammie Cummings the first week of December)

5. Preliminary evaluation of assessment methods (December 2009-January 2010)
   a. request samples from individual instructors: For ARCH 2300: 3 sections   Range 1 A grade; 1 B; 1 C; 1 F from each section (Samples 12 sets of final construction drawings 12 set of quizzes)
   b. blind review of work by panel of 3 faculty members. Panel for each sample type will probably be different.
   C. evaluate methods of assessment and change if necessary. Do they reflect the stated learning objectives? (January 2010).
   D. develop rubrics based on comments of reviewers. These rubrics will be used in the Spring assessment process (January 2010).

Timeline for Spring 2010
1. At beginning of semester, introduce new instructors to assessment process. Share with all instructors of 2300 information about preliminary assessments, rubrics and plans for semester. Elicit questions and comments. Make data available to rest of faculty (February 2010). The Spring 2010 class schedule is not yet finalized. The number of sections for each course will probably remain the same; there are different instructors.
2. I will be teaching ARCH 2300 for the first time, so it will be easier to keep in contact with all the instructors. (February-May 2010).
3. As with the preliminary assessment, sample of student work and review it with faculty panels. The size and type of samples needs discussion with Tammie Cummings, AIR coordinator.
4. Final report (June 2010)

2010-2011: Please provide this information

2011-2012:
Building technology committee met every third week. Assessment strategies were discussed and implemented. Building technology ARCH 2300 - Drawing III (and ARCH 1290 - CAD) REPLACED BY ARCH 2330 - Building Tech III. A 25+ rubrics system was developed to analyze students final projects. This rubric is been utilized across the sections of the class. Student projects are compared to this rubric several times over the course of the semester.
The development is project was facilitated with support of the national

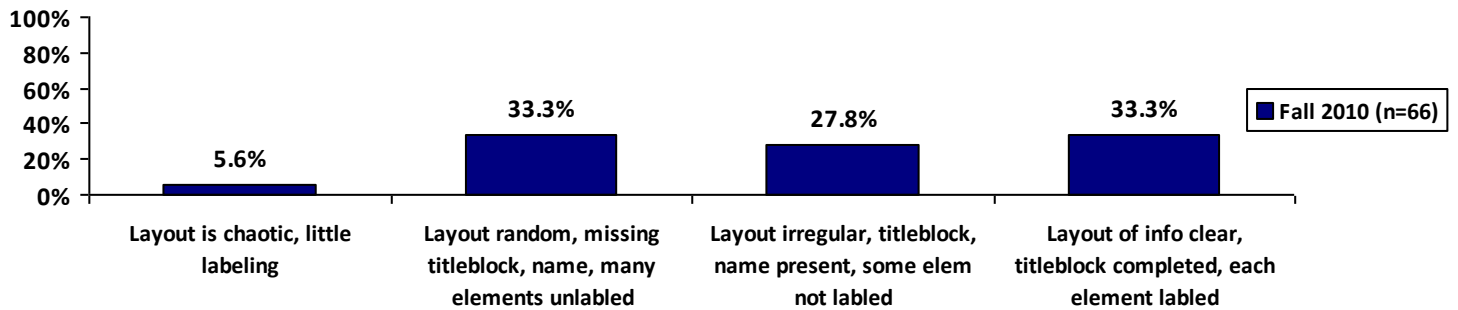| Selected Critical Course:	ARCH 2300 Architectural Drawing III
	science foundation. This transformation has resulted in a more robust and contemporary course.
Assessment Data Collection:	Fall 2010 All sections: Total number of 66 students in 3 sections Sections that implemented the assessment activities: 3 sections with 66 students
Student Learning Outcome #1	Students will be able to coordinate a set of construction documents into a logical, sequential set.

Measure 1a: Construction documents: content and organization (using a rubric)
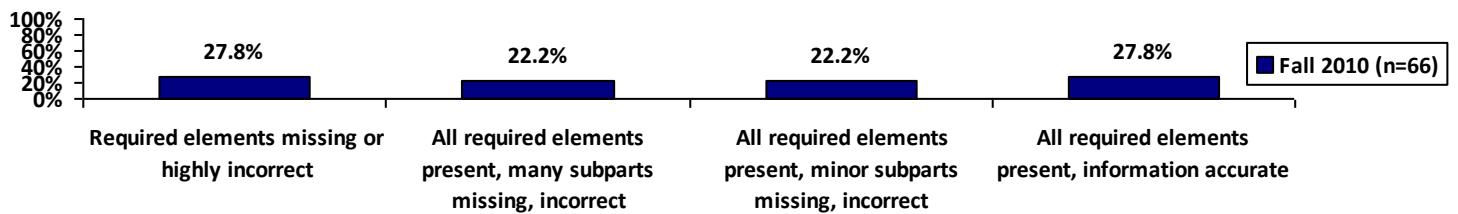
Measure 1b: Construction documents: linework and annotation (using a rubric)

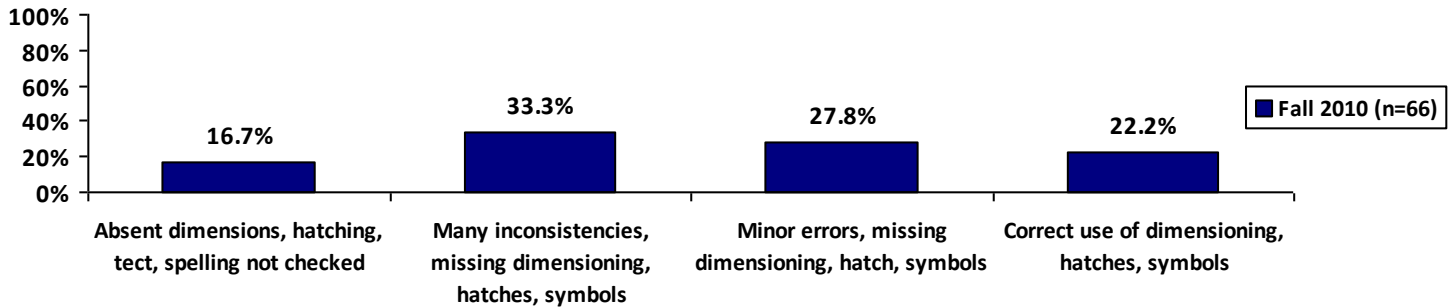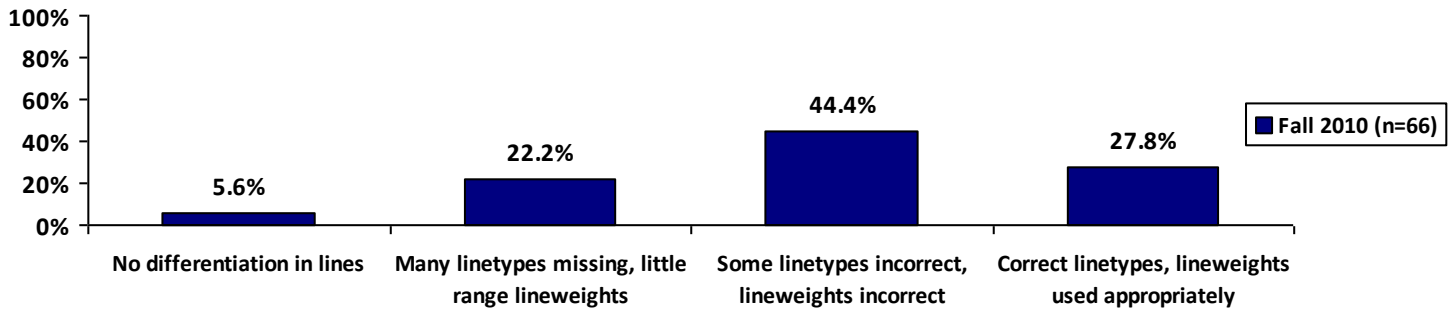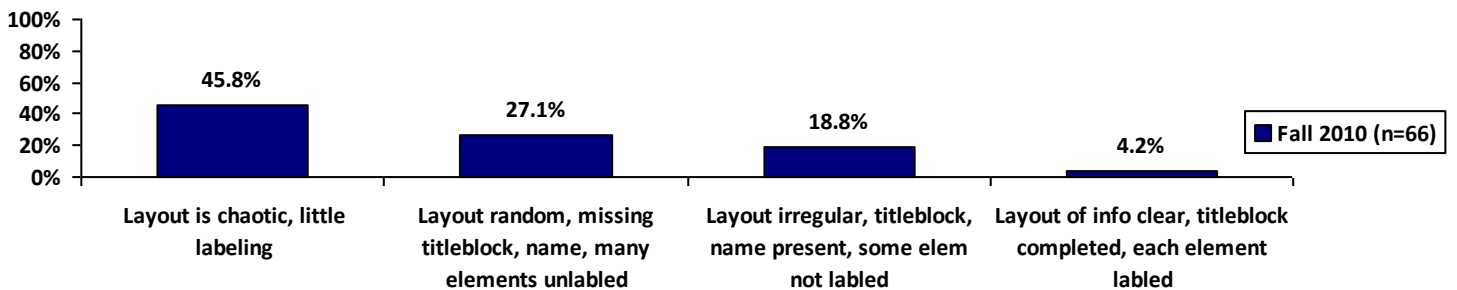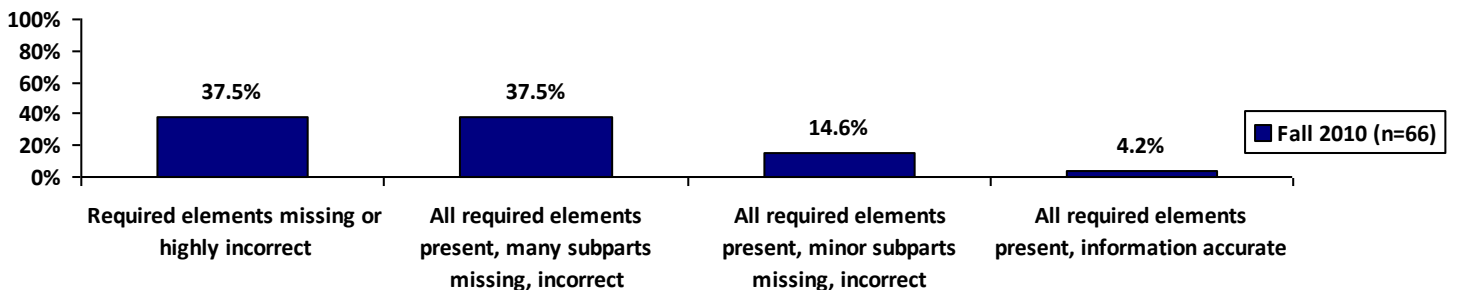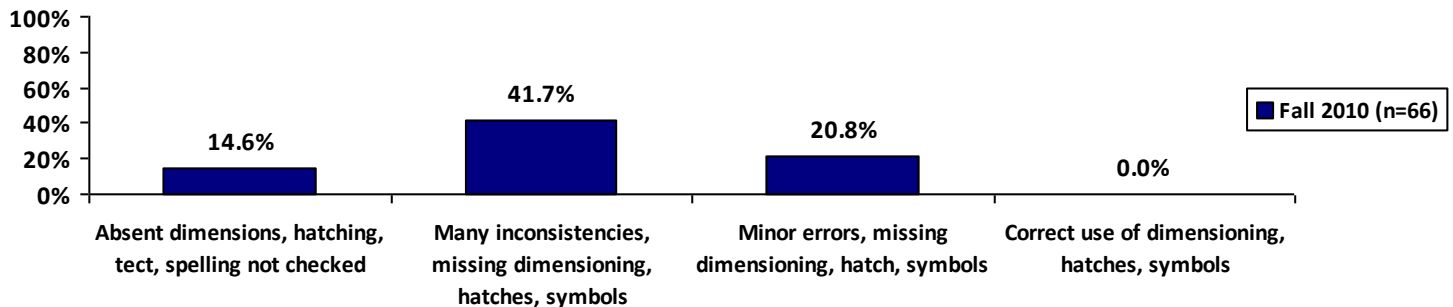|			Fall 2010 (n=66)
5.6%	22.2%	44.4%	27.8%
No differentiation in lines	Many linetypes missing, little range lineweights	Some linetypes incorrect, lineweights incorrect	Correct linetypes, lineweights used appropriately

			Fall 2010 (n=66)
16.7%	33.3%	27.8%	22.2%
Absent dimensions, hatching, tect, spelling not checked	Many inconsistencies, missing dimensioning, hatches, symbols	Minor errors, missing dimensioning, hatch, symbols	Correct use of dimensioning, hatches, symbols

Student Learning Outcome #2:   Students will be able to transpose drawings demonstrated in class into working drawings

Measure 2a: Students design a stair based on code requirements and given parameters (using a rubric)

			Fall 2010 (n=66)
37.5%	37.5%	14.6%	4.2%
Required elements missing or highly incorrect	All required elements present, many subparts missing, incorrect	All required elements present, minor subparts missing, incorrect	All required elements present, information accurate

			Fall 2010 (n=66)
45.8%	27.1%	18.8%	4.2%
Layout is chaotic, little labeling	Layout random, missing titleblock, name, many elements unlabled	Layout irregular, titleblock, name present, some elem not labled	Layout of info clear, titleblock completed, each element labled

Measure 2b: Stimulation - Students draw staircase in Autocad at a specified scale (using a rubric)

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Chart 1 (Fall 2010, n=66):
- No differentiation in lines: 14.6%
- Many linetypes missing, little range lineweights, incorrectly: 41.7%
- Some linetypes incorrect, lineweights sometime incorrect: 20.8%
- Correct linetypes used, lineweights used appropriately: 0.0%

Chart 2 (Fall 2010, n=66):
- Absent dimensions, hatching, tect, spelling not checked: 14.6%
- Many inconsistencies, missing dimensioning, hatches, symbols: 41.7%
- Minor errors, missing dimensioning, hatch, symbols: 20.8%
- Correct use of dimensioning, hatches, symbols: 0.0%

Assessment Summary: 2010-2011: The fall 2010 rubric analysis revealed that students had a fairly good grasp of overall construction of content, organization, linework and annotation of construction documents. The areas that most need improvement were the specific areas of application like designing spaces and stairs based on code requirements and given parameters. Understanding of scale using modeling software could also be strengthened.

Improvement Plan: Improvement Plan for 2010-2011:

Action by faculty to improve SLO#1:
For the last two years the faculty has been evaluating, discussing, researching and rewriting the curriculum. In October 2010, a major curriculum revision for the first two years of the architectural technology program was submitted. ARCH 2300 will be replaced by a course titled Building Technology III. It is anticipated that the changes will take place Fall 2011 at the earliest or Spring 2012 at the latest.
A curriculum assessment committee consisting of Jason Montgomery, Alexandra Emma Bernadette and Barbara Mishara has met (11/12, 12/6) to review and rewrite the learning objectives, assessments and course descriptions for the new curriculum. The new course Building Technology III is included in this initiative. All learning objectives and assessment methods will change. Meeting are planned for 12/13, 12/20, 1/10, 1/17. Once this activity is completed, the revisions will be given to the area sub-committee in building tech for review and incorporation into the new course outline. The revisions will be submitted to the Arch Tech faculty and eventually to the college curriculum committee.
Oversight of the curriculum process has occupied the department's

Selected Critical Course: ARCH 2300 Architectural Drawing III

steering committee (Shelly Smith, Jason Montgomery, Illya Azaroff, Barbara Mishara) which has met 9/7, 10/12, 11/30. A meeting is planned for 12/21.
In anticipation of the new course Building Technology III, the following actions have/ will take place:
1. The class hours were divided into two sessions per week rather than one (introduced in Fall 2010).
2. A lab tech was assigned to one session per week in tutor students in computer drafting (introduced in Fall 2010).
3. Computer scripts and 3-D models are being developed to improve student understanding of the building assemblies and familiarize them with the computer programs to be introduced (Fall 2010 and ongoing).
4. Through the Perkins grant, computer training will be offered to the faculty. Several classes will take place in January 2011 and during the Spring 2011 semester.

Action by Faculty to improve SLO #2:
For the last two years the faculty has been evaluating, discussing, researching and rewriting the curriculum. In October 2010, a major curriculum revision for the first two years of the architectural technology program was submitted. ARCH 2300 will be replaced by a course titled Building technology III. It is anticipated that the changes will take place Fall 2011 at the earliest and Spring 2012 at the latest.
A curriculum assessment committee consisting of Jason Montgomery, Alexandra Emma Bernadette and Barbara Mishara has met (11/12, 12/6) to review and rewrite the learning objectives, assessments and course descriptions for the new curriculum. The new course Building Technology III is included in this initiative. All learning objectives and assessment methods will change. Meeting are planned for 12/13, 12/20, 1/10, 1/17. Once this activity is completed, the revisions will be given to the area sub-committee in building tech for review and incorporation into the new course outline. The revisions will be submitted to the Arch Tech faculty and eventually to the college curriculum committee.
Oversight of the curriculum process has occupied the department's steering committee (Shelly Smith, Jason Montgomery, Illya Azaroff, Barbara Mishara) which has met 9/7, 10/12, 11/30. A meeting is planned for 12/21.
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4. Through the Perkins grant, computer training will be offered to the faculty. Several classes will take place in January 2011 and during the Spring 2011 semester.

Selected Critical Course: ARCH 2300 Architectural Drawing III

Improvement Plan for 2010-2011:

The courses importance can be underlined and the fact that he is been modernized to such an extent that it is received a new title and has gained additional credits. A lot of development work has been devoted to this sequence of courses because of the transformation of the technology ARCH 2300 - Drawing III (and ARCH 1290 - CAD) REPLACED BY ARCH 2330 - Building Tech III.
A. The course is a whole new set of lecture notes and PowerPoint's the Star points to divided into three parts one part goes over the theory another part explores a case study and the final part investigates a case study
b. Assignment sheets containing learning objectives, assessments, project description, and process points were developed for all the assignments.
C. Final project rubrics will put into place for all the sections these rubrics were extensive and outlined over 25 points for faculty to evaluate students project. This rubric was used at several points over the semester to assist the students in developing their projects
d. Additional analytical sketch projects were outlined in a similar form to the other assignments
The final project rubric will be used from all sections to evaluate success of the project the national foundation of science will also be looking at these results.

Selected Critical Course:	ARCH 2311 Architectural Design III
AcademicYear	2009-2010; 2010-2011; 2011-2012
Background/Rationale:	Architectural Design is an essential part of our core program in the first two years. The course involves creating drawings which enable the contractor to build the structure as designed by the architect. It also requires an ability to image a concept and then be able to communicate it visually, as well as, in written and spoken language.
Assessment Liaison:	Alexander Aptekar
Department Assessment Liaison:	Jason Montgomery and Barbara Mishara
Assessment Planning:	2009-2010: Please provide this information.
	2010-2011: Please provide this information.
	2011-2012: Please provide this information.
Assessment Measure:	Student Learning Outcome #1: Students will demonstrate an ability to define spaces and organize space into plans, sections and models. Measure 1: Final project - design and graphic evaluates design development (program, parti and form) Measure 2: Final project - design and graphic evaluates design development (organization, drawing technique, model) (using a rubric)

Student Learning Outcome #2: Students will work with an architectural program. Express design ideas in written and oral communications. Measure 1: Final design project - oral presentation evaluates a student's ability to present work orally. It assess content, precedent and professional vocabulary (using a rubric) Measure 2: Delivery (volume and clarity, eye contact, posture) during the presentation (using a rubric) |
| **Assessment Timeline:** | 2009-2010:

Timeline for Fall 2009: 1 Start assessment process by attending school wide meetings to learn of requirements and techniques (in progress)

2. Faculty selects courses for evaluation. Faculty selected ARCH 2311.

3. Meet with course coordinators to discuss assessment procedures. Discuss program with individual instructors of targeted courses. There are 5 sections of ARCH 2311 (in progress).

4. Decide on methods of assessment-suggested for ARCH 2311: one research paper and one design project. (Meet with Tammie Cummings the first week of December)

5. Preliminary evaluation of assessment methods (December 2009-January 2010)   a. request samples from individual instructors: |

Wednesday, January 16, 2013

Selected Critical Course: ARCH 2311 Architectural Design III

     -For ARCH 2311 5 sections Range 1 A grade; 1 B; 1 C; 1 F from each section (Samples 20 design, projects,20 research papers

     b. blind review of work by panel of 3 faculty members. Panel for each sample type will probably be different.

     C. evaluate methods of assessment and change if necessary. Do they reflect the stated learning objectives? (January 2010).

     D. develop rubrics based on comments of reviewers. These rubrics will be used in the Spring assessment process (January 2010).

Timeline for Spring 2010
1. At beginning of semester, introduce new instructors to assessment process. Share with all instructors of 2311 information about preliminary assessments, rubrics and plans for semester. Elicit questions and comments. Make data available to rest of faculty (February 2010). The Spring 2010 class schedule is not yet finalized. The number of sections for each course will probably remain the same; there are different instructors.
2. I will attend all student presentations given ARCH 2311 to become more familiar with the course (February-May 2010).
3. As with the preliminary assessment, sample of student work and review it with faculty panels. The size and type of samples needs discussion with Tammie Cummings, AIR coordinator.
4. Final report (June 2010)

2010-2011: Please provide this information.

2011-2012: Please provide this information.

Assessment Data Collection: Fall 2010
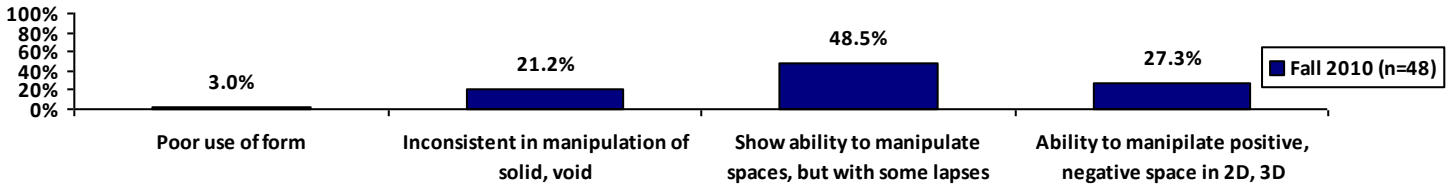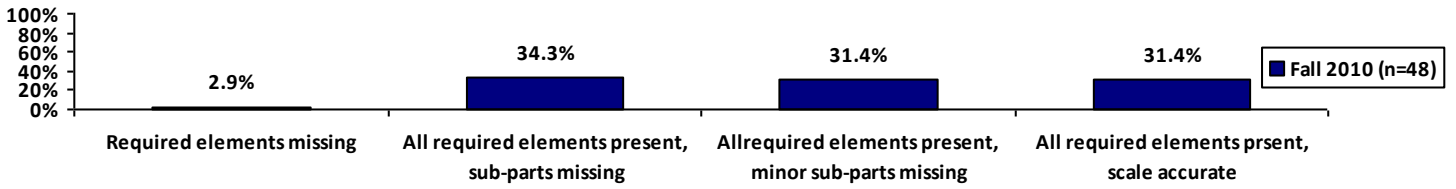All sections: Total number of 58 students in 4 sections
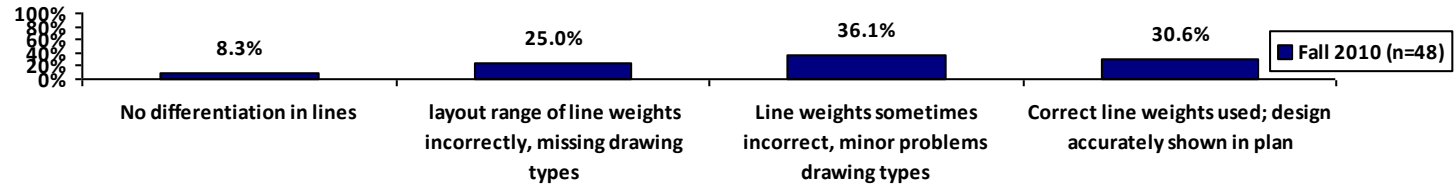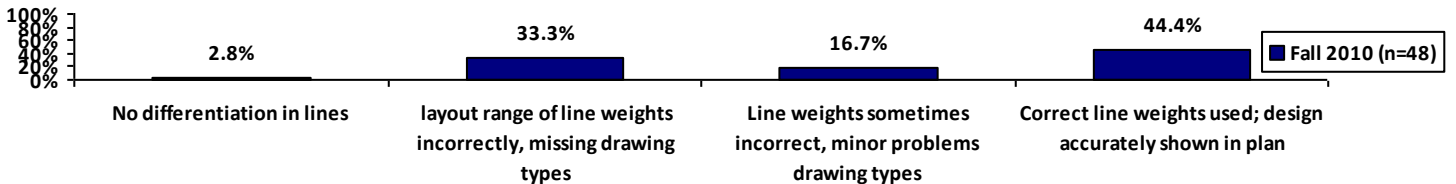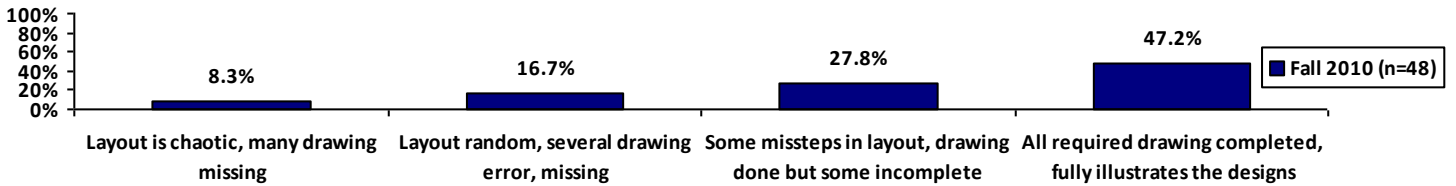Sections that implemented the assessment activities: 3 sections with 48 students

Student Learning Outcome #1   Students will demonstrate an ability to define spaces and organize space into plans, sections and models.

Measure 1a: Rubric to evaluate final project - design and graphic evaluates design development (program, parti and form)(using a rubric)

Required elements missing **2.9%**
All required elements present, sub-parts missing **34.3%**
Allrequired elements present, minor sub-parts missing **31.4%**
All required elements prsent, scale accurate **31.4%**
Fall 2010 (n=48)

Poor or lacking organization **5.6%**
Organizing idea present but inconsistent **22.2%**
Minor discrepancies **47.2%**
Clear expression of organizing factors **25.0%**
Fall 2010 (n=48)

Poor use of form **3.0%**
Inconsistent in manipulation of solid, void **21.2%**
Show ability to manipulate spaces, but with some lapses **48.5%**
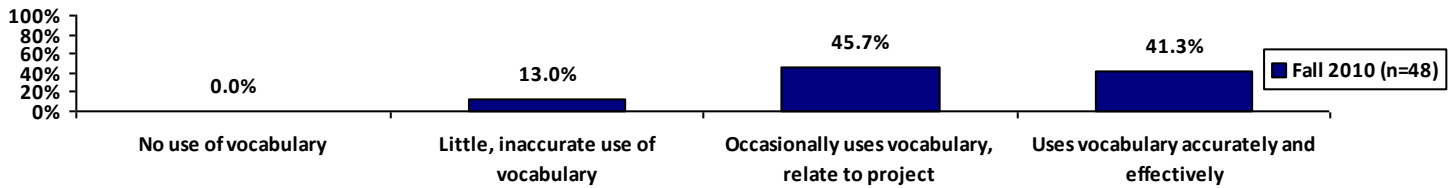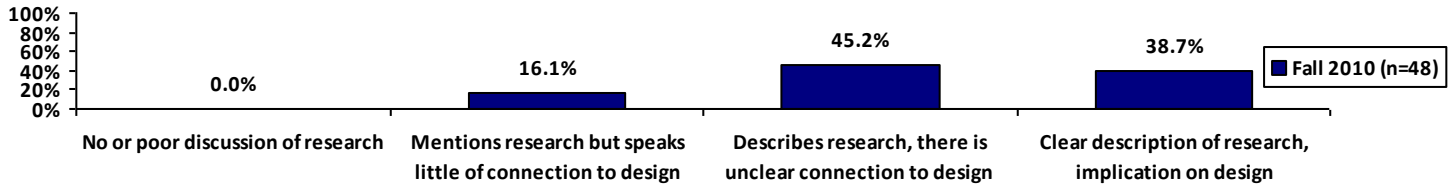Ability to manipilate positive, negative space in 2D, 3D **27.3%**
Fall 2010 (n=48)

Measure 1b: Final project - design and graphic evaluates design development (organization, drawing technique, model) (using a rubric)

Layout is chaotic, many drawing missing **8.3%**
Layout random, several drawing error, missing **16.7%**
Some missteps in layout, drawing done but some incomplete **27.8%**
All required drawing completed, fully illustrates the designs **47.2%**
Fall 2010 (n=48)

No differentiation in lines **2.8%**
layout range of line weights incorrectly, missing drawing types **33.3%**
Line weights sometimes incorrect, minor problems drawing types **16.7%**
Correct line weights used; design accurately shown in plan **44.4%**
Fall 2010 (n=48)

No differentiation in lines **8.3%**
layout range of line weights incorrectly, missing drawing types **25.0%**
Line weights sometimes incorrect, minor problems drawing types **36.1%**
Correct line weights used; design accurately shown in plan **30.6%**
Fall 2010 (n=48)

Student Learning Outcome #2: Students will work with an architectural program. Express design ideas in written and oral communications

Measure 2a: Final design project - oral presentaion evaluates a student's ability to present work orally. It assess content, precedent and professional vocabulary (using a rubric)

Selected Critical Course: ARCH 2311 Architectural Design III

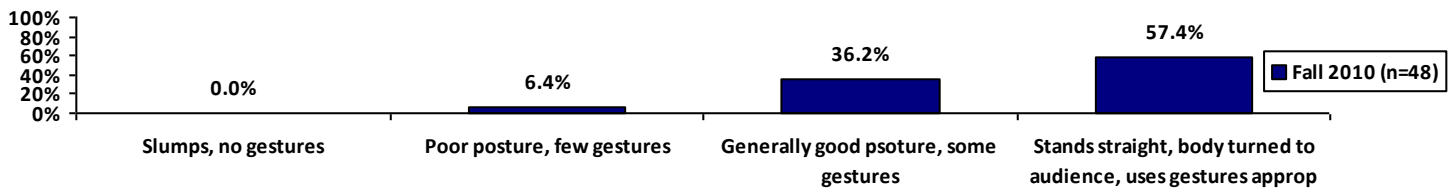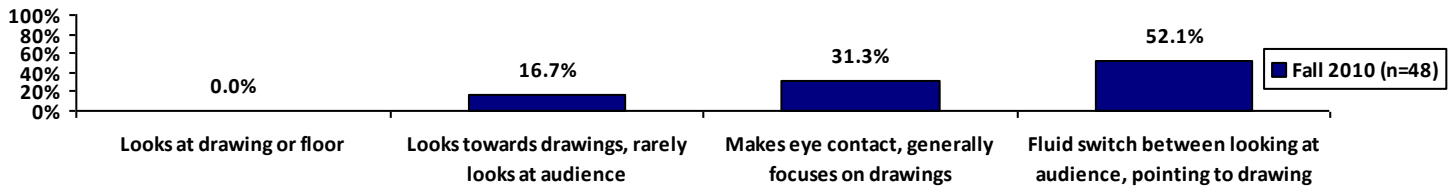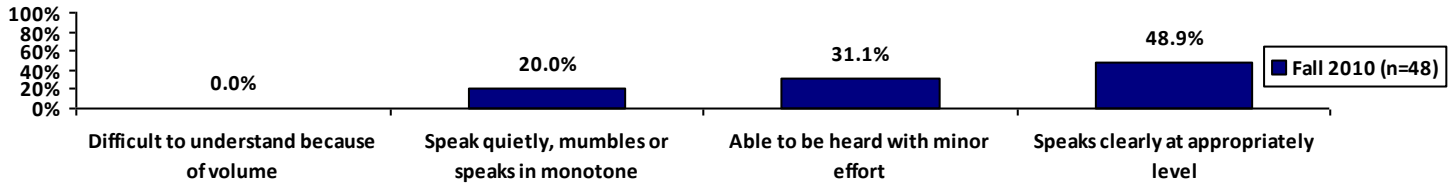|	Fall 2010 (n=48)
Poor or no explanation of design	2.2%
A walk though of project, little, no discussion of parti, drawing	26.1%
Focuses on spaces created, able to discuss parti if asked	32.6%
Begin with intro, explain parti, flow of space, drawings	39.1%

	Fall 2010 (n=48)
No or poor discussion of research	0.0%
Mentions research but speaks little of connection to design	16.1%
Describes research, there is unclear connection to design	45.2%
Clear description of research, implication on design	38.7%

	Fall 2010 (n=48)
No use of vocabulary	0.0%
Little, inaccurate use of vocabulary	13.0%
Occasionally uses vocabulary, relate to project	45.7%
Uses vocabulary accurately and effectively	41.3%

Measure 2b: Delivery (volume and clarity, eye contact, posture) during the presentation (using a rubric)

	Fall 2010 (n=48)
Difficult to understand because of volume	0.0%
Speak quietly, mumbles or speaks in monotone	20.0%
Able to be heard with minor effort	31.1%
Speaks clearly at appropriately level	48.9%

	Fall 2010 (n=48)
Looks at drawing or floor	0.0%
Looks towards drawings, rarely looks at audience	16.7%
Makes eye contact, generally focuses on drawings	31.3%
Fluid switch between looking at audience, pointing to drawing	52.1%

	Fall 2010 (n=48)
Slumps, no gestures	0.0%
Poor posture, few gestures	6.4%
Generally good psoture, some gestures	36.2%
Stands straight, body turned to audience, uses gestures approp	57.4%

Assessment Summary: 2010-2011: Please provide this information

Improvement Plan: Improvement Plan for 2010-2011:

Action by Faculty to improve SLO #1:

Selected Critical Course: ARCH 2311 Architectural Design III

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Oversight of the curriculum process has occupied the department's steering committee (Shelly Smith, Jason Montgomery, Illya Azaroff, Barbara Mishara) which has met 9/7, 10/12, 11/30. A meeting is planned for 12/21.

Action by Faculty to improve SLO #2:
For the last two years the faculty has been evaluating, discussing, researching and rewriting the curriculum. In October 2010, a major curriculum revision for the first two years of the architectural technology program was submitted. ARCH 2311 is included in this initiative. It is anticipated that the changes will take place Fall 2011 at the earliest and Spring 2012 at the latest.

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Improvement Plan for 2011-2012: Please provide this info.