EVALUATION OF THE
LOWER DIVISION CORE CURRICULUM
OF THE
COLLEGE OF ENVIRONMENTAL DESIGN

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PREAMBLE

This review of the Lower Division core curriculum of the College of Environmental Design is the first in many years to be done by a committee drawn from across the whole College faculty. Committee members were selected by the Department Chairs. During 2004-05, we interviewed the Chairs and past instructors of the core courses, reviewed old course evaluations, and heard from many other faculty and advising staff. We also had our members convene instructors together to develop a common statement of the principal themes and goals for core courses. The Process is described at greater length in Appendix A.

In the sections which follow, we first note some general comments and then review briefly each core course with recommendations. We next discuss additional lower division courses that would be useful to add, and finally review the implications for resources and need for incentives to entice more faculty to teach in the core.

GENERAL COMMENTS/INTRODUCTION

The review Committee has been impressed by the quality of the courses being taught and by the commitment of the instructors. Instructors were often not aware, however, of what other instructors were doing, and there was much variability from instructor to instructor in what was taught in the same core course. Developing the statement of principal themes and goals for each core course will hopefully bring a more common foundation to each course, while still permitting instructors much leeway in deciding how best to teach the themes, ideas and skills that are the goal of each course. These statements should also be used by Chairs to inform new instructors of what the College seeks from each core course, and should be posted on the web and distributed to our feeder junior colleges to shape their articulated courses.

The Committee also agreed on the following:

(1) Each core course needs to reinforce what has been taught in the earlier courses of the core, through periodic mentioning of earlier course themes or pointing out the relationship of newly taught concepts to those taught earlier.

(2) So much is currently taught in the core that there is little capacity for adding new skills and concepts to the instruction goals. If majors desire yet additional skills be taught, they should add additional courses which could be taken prior to or simultaneously with the initial upper division courses of the major.

(3) We currently do well in the core in developing student skills in visual and oral argument, but the core needs to provide students with more experience in making arguments through writing. There should be some writing exercises in each core course and a new lower division optional course emphasizing writing.
(4) The College would benefit by having more lower division courses as electives which might provide a stronger intellectual foundation for CED students and students outside CED in the literature of environmental and urban design. We recommend that a new lower division course be created for CED and other students emphasizing the key ideas shaping our fields in the 20th century as well as critical argument and writing. We also believe a lectures-only course for two (2) units should be associated with both ED11A and ED11B for non-CED students.

(5) Our current studio format for much of the core provides early socialization for the pedagogies of most CED majors but requires a disproportionate share of student time relative to the units provided. This distracts students from completing the rest of their breadth requirements across the campus and extends the time to degree completion beyond the campus' desired goals. We recommend that ED1 and 4 not be taught in a studio format, and that instructors be regularly reminded to keep lower division studio work in line with the units awarded students.

(6) Since students usually come into the College with good computer skills, core instructors need to be mindful of acknowledging and applauding those skills even when the core courses are not emphasizing computer-based skills in design. Students otherwise can perceive the College as ignoring such skills until they are juniors. We applaud the recent decision by Architecture to have a GSI computer specialist to help teach students in each core course.

REVIEW OF CORE CURRICULUM

We will now review in turn each of the current core courses.

The First Core Course – ED1 and ED4

Current Catalogue Description:

ED1 is an introduction to environmental design and the professions of architecture, landscape architecture, city planning, urban design and environmental planning. Lectures from instructors, guest lecturers from the College of Environmental Design, readings, discussions, field trips and library research will introduce some of the theory and practice related to the design and planning professions and prepare environmental design students for subsequent courses.

ED4 has three primary purposes: to learn to look carefully at the buildings, streets, and landscapes that make up our environment; to learn how and why they came to be and in what ways they change; to understand how architects, landscape architects, planners and other designers think about their work and how they imagine place and think about change.
ED 1 and 4 are lecture courses intended to introduce students to the foundations of environmental design and its related professional fields. Instructors and/or GSIs have required students to do a variety of “design” projects as part of the discussion section. Even though students are not assigned individual desks, the courses have a “studio” feel because of the projects. Students currently are required to complete one of the courses to fulfill CED core requirements. Though never advised to do so, students could conceivably take both courses for graduation credit.

Over the years, both courses have been reshaped by the faculty members who have taught them. As the catalogue descriptions above suggest, there is considerable overlap between them. Faculty presentations to this committee underscored this point. ED1 currently provides an introduction to the design process in architecture, landscape architecture and city planning, through lectures, readings and short design exercises that increase in scale as the term progresses. The course concludes by exploring issues in activism and sustainable design that cut across all three disciplines. ED4 also provides an introduction to environmental design by giving an overview of the different systems of representation and analysis specific to each discipline, and exploring how these inform design methods and professional practice.

The committee recommends that these two courses be merged into a single class that builds upon the most successful aspects of each. We propose it be titled “People and Environmental Design.” The revised course would introduce students to the foundational knowledge and social history of each of the three disciplines. The common themes already present in different degrees across the two classes, including the exploration of sustainable design, attention to urban issues and a focus on social activism, should be retained and strengthened. The current emphasis on design exercises should be modified to reflect a broader spectrum of pedagogical techniques. For example, the design process and its results could also be studied through analysis of selected buildings and urban spaces in the Bay Area. The course should also provide a historical understanding of environmental design, through variously scaled case studies that link readings, lectures and discussions together. In addition to introducing the forms of visual inquiry and communication particular to each field, the class should emphasize the potential of writing, research and critical reflection as powerful aspects of design thinking. The realm of professional practice, though introduced at a general level in this class, could be explored in greater depth in a subsequent lower division course on the history of the environmental design professions.

The new course has the potential to attract a broad cross-section of students to the CED who may be interested in learning about the environmental design disciplines and the forms of critical understanding and social action associated with each. Combining ED1 and 4 would eliminate confusion about the fairly nonexistent differences between the two courses and prevent any double registration. We recommend the new ED1 course continue to be offered in both the Fall and Spring semesters, but also in the Summer. The Summer offering would further reduce the backlog of students who need to take the class and open it up to a greater number of students from outside the CED including Junior College transfers seeking to fulfill contingencies of admission.
We also urge that the number of projects students must do in the sections be reduced to no more than two or three to avoid the tendency to convert sections into a studio-like experience. The change could also free up GSI resources for other parts of the curriculum.

Our Committee also believes that while occasional guest speakers are appropriate, particularly in demonstrating how the professions differ or the range of practice, it is important that a single instructor or two provide most of the lectures so that there will be a continuity to the themes developed.

The Second and Third Courses of the Core – Introduction to Studio Learning

Catalogue Description:

ED 11A Introduction to Drawing
Introductory studio course: freehand drawing, perspective, color, and design; theories of representation and the use of visual means to analyze and convey ideas regarding the environment.

ED 11B Introduction to Design
Introduction to design concepts and conventions of graphic representation and model building as related to the study of architecture and landscape architecture. Drawing in plan, section, elevation, axonometric and perspective. Design projects addressing concepts of order, site analysis, scale, structure, rhythm, detail, culture, and landscape.

ED 11 A and B are the first lower division studio courses in the College of Environmental Design, meant to serve students majoring in Architecture, Landscape Architecture, and Urban Studies. While the catalogue descriptions listed above simply describe the courses as an introduction to drawing and design, in fact, the courses are broad based introductions to the studio approach to learning. While ED11A introduces visual representation, ED 11B introduces what one instructor called the “geography of the imagination.” The ED 11B course is intended to introduce design thinking through a set of conceptual problems at different scales of analysis. A list of common goals for both courses are attached in the appendix.

Students are currently advised to take ED1 or ED4, then ED11A, and finally ED11B in sequence. In practice, individual instructors frequently permit students to jump sequence when space is available. This happens most often during summer session. Our committee believes this flexibility is not a problem, though advising should continue to emphasize the sequence.

The completion of articulated courses for those core courses is a requirement for admission of Junior College transfers and for campus Change-of-College transfers after the first two years. However, it is the rare non-CED student who can get into the course
because of CED student demand. This creates a problem for non-CED students wishing
to transfer into a CED major.

The ED11A and ED11B studios currently seem to require a significant time commitment
from students (though many instructors believe this is because students are enjoying the
studio culture and prefer to allocate more time to the assignments). Dean Fraker and the
Chairs of the Departments which provide instructors for the courses have suggested
increasing the number of units from 4 to 5 to reflect the workload and teaching effort.
Adding one unit to each of these required courses has consequences in terms of the
number of total classes a student can take and in terms of the students’ ability to complete
university requirements in a timely fashion.\footnote{Students and staff advisers report the current workload decreases students’ ability to complete the CED and campus lower division “breadth requirements” in the first two years and thus creates problems for timely graduation – defined by the campus as eight semesters for students entering as freshmen and four semesters for Junior College transfers. Since additional semesters are being discouraged under campus and College policies, more students – in a campus-wide trend – are being advised to take summer session courses. These don’t count against timely graduation norms.}

ED11A – The Second Core Course

The core courses of the CED define the collective experience of the undergraduate
environmental design curriculum. In particular, ED11A builds a vocabulary for this
shared experience by developing new ways of seeing, thinking, and solving problems,
that respond to ever changing environmental circumstances. The course promotes spatial
awareness as a means to access the creative problem solving and critical thinking skills
that are integral parts of an environmental design education. Most importantly, through
the process of visual perception and representation, ED11A lays a pathway to help each
individual student find his or her own personal vision.

The primary focus is on graphic communication and freehand drawing. Students are presented with a graduated set of projects, classical in their
development, beginning with line, perspective, tone, color, and the visual
narrative.

\footnote{Class lectures survey the history of art, architecture, urban design, and
landscape architecture as well as mapping, planning, proportion,
composition, color and the design process. Students are exposed to
numerous ways of seeing from historical methods to the current media
technology.}

Students are required to keep a sketchbook or a visual diary to record
lectures, instruction and, review comments, and to record their creative
process.

Review of Lower Division Core Curriculum of College of Environmental Design
Page 5 of 17
The standards of architectural representation of plan, section and elevation are introduced through a series of exercises that help students to visualize 3-dimensional form.

Visualizing the qualities of time, atmosphere and place and how light breaks on different materials, is interpreted and translated into graphic descriptions through tone and texture.

In-class workshops introduce students to digital photography, photoshop and scanning. Students learn how to scan drawings and manipulate them to produce hybrid drawings.

(2) A final summary project is assigned which affords students the opportunity to synthesize the objectives of the class and reconcile issues of program and site. Students thus will be able to graphically and verbally communicate their ideas. The instructors of ED11A have long seen drawing as humanities instruction, rather than simply as a skill for students to learn. To quote from them, “Poetry, literature, music, dance, the fine arts, all have a place in a university education. Indeed, what would a university education be without them? Drawing belongs here as well. Not to be seen simply as a set of skills, but rather as a mode of expression. To draw is to focus to know the world – to see what needs to be drawn.”

In summary, ED11A is part of a series of core undergraduate courses that help to develop the common language of creativity, craftsmanship and compassion that enriches the education of the student and celebrates the heritage of the college. The course treats the language of graphic representation together with its intellectual counterpart, the critical thinking that goes into visual expression and drawing, as a means to know the world.

The main concerns of the Committee after reviewing the different offerings across instructors was that there be more commonality across offerings, that each instructor be encouraged to provide attention to a broad array of visual representation techniques in addition to drawing, and that the course title reflect the broader focus of the course on visual representation as well as drawing. Individual instructors may give more or less emphasis to drawing versus other visual representation techniques, but a range of techniques need to receive attention in the course. The instructors have come together to produce a common statement of goals for the course, which is included as Appendix B. Their discussions together should provide more commonality across offerings; we urge The Dean’s Office to foster continuing periodic meetings in future years among the instructors. We also urge that the statement be posted on the College website and distributed to CED’s feeder Junior Colleges; it will assist those schools in preparing their articulated courses. We also believe that the formal title of the course should be changed to “Introduction to Visual Representation and Drawing;” this would better represent to students the actual substantive focus of the course.
A final recommendation is that a new 1- or 2-unit course, ED15, be developed for non-CED students who could solely attend the lectures portion of the ED11A course and perhaps have a special section. This would help CED better fulfill its broader educational mission to the whole campus and over time help educate more non-CED students about some of skills and techniques in environmental design. The course would not be open to CED students, except perhaps for Junior College students who had already completed articulated courses to ED11A at other schools but wanted to understand more of our own faculty’s philosophy or approach.

ED11B – The Third Core Course

In general terms, ED 11B is an opportunity for students to explore design thinking without the constraints of making a building. Instead, students are challenged to engage in the process of design, that is, of making something from their imagination, and explaining the idea with graphic tools. This involves thinking and working on many scales from the hand-crafted detail to the urban setting. The combination of lectures and studio exercises are intended to teach students about the fundamentals of design. The committee believes that the course could benefit from a set of core readings that reinforce the connection to material in ED 1 and ED 11A. The course is not intended to serve as a pre-professional design introduction.

In the past, some instructors have used ED 11B to teach architectural design studio graphic skills such as drawing techniques for describing buildings in plan, section, perspective, etc. The committee believes that if the faculty in any department want a class to develop specific technical skills for students, either prior to or concurrent with upper division courses then a separate class, perhaps called 11C, could be offered. In Architecture, this new course could offer technical drawing skills to prepare students for design studio. In planning or landscape, a new course could offer skills in mapping and GIS techniques. The number of units, and appropriate level (lower or upper division), and the time needed for such courses would have to be determined by each department for students in the major.

We urge that the lectures portion of ED11B also be made available as a separate course (e.g., ED16) for students outside CED, akin to our proposal for ED11A. This will increase the College’s service to the broader campus.

The current instructions, with the support of this Review Committee, have developed a common statement of themes and goals for this course – see Appendix C. We believe this statement should be distributed to any new instructor so that they will understand the College’s goals for the course. We also urge it be distributed to the Junior College and placed on the College website to assist Junior College instructors in designing the courses for which they seek articulation. The Web posting will also be of value to students across the campus in choosing courses.
Additional Lower Division Course Recommended:

Our committee recommends that an additional lower division course be created in CED so that our students can gain more exposure to the intellectual foundations of our different design fields and more experience in writing, argumentation, and critical assessment of texts. While we also urge that the other core courses provide some attention to the literature of Environmental Design, we recognize the need to limit workload in the studio classes. We recommend a course on the intellectual history of our fields, optional for CED students but attractive to them and non-CED students. Departments in CED would need to adjust the required electives or major requirements so that students taking the new course could count it toward meeting their existing total requirements for completing their major.

ED 10 History of Thought in Environmental Design (A New Course)

Course Description

*Environmental design is a rich and complex realm of ideas and practices. It involves the study of urban, built, natural, global, and virtual environments. It also involves various forms of practice, such as architecture, planning, urban design, and social and environmental activism. It is a rich and complex realm of ideas and practices.*

*With emphasis on the key moments of the 20th and now 21st century, this course introduces students to the big ideas and concepts and personalities of these various fields. The course is open to all undergraduate students in CED and other colleges and majors. There are no prerequisites for this class.*

Course Justification: Why a New Course?

We are a college of environmental design. We do not simply do design. We also engage with the environment – the built, natural, urban, global, and virtual environments. One of the goals of the lower-division ED curriculum is to introduce students to the foundational ideas that have shaped this engagement with space and place. While the existing lower-division ED courses seek to do some of this, they are already overburdened by various other expectations. ED 1/4 acts primarily as an introductory course. ED 11A trains students in visual representation. ED 11B is expected to introduce students to design thinking. This committee identified the need for a new course, ED 10, which would build an intellectual foundation for upper-division coursework in CED. Depending on how this course is taught it could also attract large numbers of non-CED students, thereby serving the campus.

To entice more students to take this new course, we propose that the course be listed as satisfying the “R and C” requirement or perhaps the “Philosophy and Values” breadth requirement of CED, or that Departments consider adjusting their major elective requirements such that students taking this course would have one fewer elective to take.
After some years of experience with the ED10 course, it should be reviewed to assess its value, how many students are taking it, and whether it should be required.

**Proposed Elements of ED 10:**

**Content**

To train students in the conceptual foundations of the three fields that constitute CED: architecture; urban studies & planning; and landscape architecture & environmental planning. The emphasis would be on the “big ideas” that have shaped each field so that students have a solid understanding of how their own ideas and practices relate to these legacies. The proposal is that the course would cover the 20th century and focus on:

1. Key figures (e.g. Le Corbusier, Jane Jacobs, Kevin Lynch) and key Berkeley figures (e.g. Spiro Kostof, Catherine Bauer Wurster, T.J. Kent, J.B. Jackson, Manuel Castells).

2. Key problems & practices (e.g. urban renewal, the postmodern turn in architecture, globalization), c) key ideas (e.g. environment & behavior research, advocacy planning & community development, environmental sustainability).

ED 10 is a “history of thought” course. But it is also a course that will have to be constantly updated to take account of cutting-edge ideas as well as the changing contours of the world. It is expected that at least 25% of the course will be devoted to these “new” ideas and issues. Some obvious ones are the following:

1. That the 21st century will be an urban century and that much of this urban growth will take place in cities outside EuroAmerica. This means not only taking account of the urban scale but also thinking beyond the usual repertoire of “great cities.”

2. That while the CED disciplines and professions are highly reliant on visual methods, since the 1970s, there has been an important debate in the humanities and social sciences about visualization and representation as modes of knowledge. These critical perspectives provide an important intellectual foundation for the techniques and methods that constitute CED studios and workshops, c) That there are multiple models of practice at work in a space like CED: the social and environmental activist; the consultant; the architect as artist; the technical expert. Each of these models is embedded in a set of ideas and traditions and each can be subject to critique and scrutiny. Students have to understand these models and their implications for their own roles as leaders and professionals.

**Pedagogical Style**

While the other lower-division ED courses are focused on teaching students about design and visual representation ED 10 will focus on how to “make arguments” and how to represent the world through such written and oral arguments. While instructors will
surely invent innovative assignments, it is highly recommended that at least one assignment involve a research/argumentation paper that engages library research, academic sources, and textual debate. In other words, students will learn how to read and write.

For this reason, ED 10 should not be taught using a parade of speakers and guest lecturers showcasing their work. The new ED10 is meant to show the lineages and interconnections of the different fields. Can one be an architect without understanding how cities work? Can one be an urban planner without understanding the struggles over good design or environmental sustainability? ED 10 will thus require students to read the “canon” and will require instructors who can analyze and debate this material in their lectures.

Institutional Support

It is hoped that faculty in all three departments will play an active role in teaching ED 10, possibly on a rotational basis. Also, ED 10 cannot be mounted without support from the Dean’s office. There is the usual need for GSI support, but also the need for a system of incentives and rewards for faculty involved in lower-division teaching. It may be possible to secure funding for the development and even teaching of the course in its initial years from various central campus programs for improvement of undergraduate curriculum (e.g., the Mellon Library/Faculty Fellowships).

INCENTIVES AND RESOURCES

There are several major resource problems currently affecting the lower division curriculum: the lack of GSI funding and the difficulty Departments confront in recruiting regular faculty for the courses. We understand that the Dean’s office is working to secure more GSI credit for the large enrollments in ED courses. Since such credits go to Departments sponsoring courses and these ED courses are not sponsored by Departments, we understand from Department Chairs that they have for years not received GSI credit for their support of our lower division curriculum. Some of our proposals, such as returning ED1/4 more to a lecture course format with far fewer section projects, should release GSI resources to other courses such as ED10, ED15 and ED16 or any new departmental skills courses. But more GSI resources may be needed if these courses are particularly successful in drawing non-CED students.

Our committee believes that it is important that regular faculty be involved in providing leadership in all of our lower division curriculum, if only to demonstrate visibly the importance the faculty gives to our undergraduate activities. We would urge senior faculty to volunteer for such activity as part of their teaching obligation to the College. We applaud the long-term service of Profs. Martin, Hester and Hood in teaching in the core; they have followed in a long College tradition and we encourage other senior faculty to come forward.
We recognize that incentives may also be needed to entice faculty into teaching such large demanding courses with freshmen and sophomores. Such incentives might take the form of a “teaching excellence” program with a stipend assistance for research, preparation and course design for faculty who take on reinventing ED1 or creating ED10.

SUMMARY OF RECOMMENDED ACTIONS

1. Combine ED1 and ED4 into a single course, to be called “People and Environmental Design.” Mandate that no fewer than two or three projects be attempted in section, so that the course is principally a lecture course. Shift GSIs to accommodate other new courses being proposed.

2. Retitle ED11A as “Introduction to Visual Representation and Drawing” Sustain movement to presenting a variety of visual representations, including but not exclusively emphasizing drawing. Create a new course ED 15 based solely on the lectures portion of ED 11A for non-CED students.

3. Retitle ED11B as “Introduction to Design Thinking” to reflect better the focus of the course. Create a new course ED 16 based solely on the lectures portion of ED 11B for non-CED students to take.

4. If Departments wish further instruction in particular skills beyond ED11B for their students’ preparation for upper division work, the Departments should offer additional courses (e.g., ED11C) aimed at their majors which would teach such skills, which would not be part of the general College core, and which could be simultaneously with ED11B or the first upper division course.

5. Create a new course ED 10 on “The History of Thought in Environmental Design,” which would be optional for students in CED, and which would provide lower division students more experience in writing, argumentation, and critical reading of the key texts in the intellectual history of our fields, with emphasis given to cutting edge ideas of the 20th and new 21st century. Departments should consider how to adjust their major’s electives or requirements of students so that the course could be taken by CED students reducing their total graduation requirements. The course could also be listed as satisfying the “Philosophy and Values” or if adequately constructed to emphasize writing, the “R and C” breadth requirements of the College.

6. Instructors in each core course should seek to reinforce to some degree the themes of previous courses in the core sequence.

7. The statement of themes and goals developed by the instructors of ED 11A and ED 11B should be posted on the web and provided to new instructors and to Junior Colleges planning articulated courses. This should also occur for ED1 and 4 on the new merged course. The Dean’s Office should seek to sustain through
periodic meetings the exchanges begun during this review process among the instructors of these courses.

8. The Dean’s Office must take the lead in helping find additional GSI resources for the lower division curriculum and in creating incentives for faculty, especially junior faculty, to teach and provide leadership to courses in the lower division.
APPENDIX A – PROCESS OF REVIEW

This review of the lower division core course offerings was launched principally because there had not been a College-wide review for many years. There had been discussion among the Architecture faculty of the courses, and concern expressed that the courses were not adequately preparing students for the Architecture 100-series studios. In response to that concern, the College launched a review of all Junior College articulated courses during 2003-05 to ensure more adequate preparation for those students. This review can be seen as a logical extension of the review of articulated course to a review of our own course offerings. In addition, the College has added a new major in recent years, Urban Studies, providing an additional perspective for assessing the adequacy of our core curriculum.

The members of the review committee were selected by their respective Department Chairs, with Architecture being provided a second member due to its much larger proportion of students in the undergraduate program. The Associate Dean for Undergraduate Affairs served as the convener of the committee.

The Committee provided invitations to all current instructors and several past instructors of the core courses to meet with the Committee, reviewed the course materials available from the Departments and instructors, interviewed the Department Chairs to hear their concerns, and had members meet with some additional faculty groups who requested briefings (e.g. the Design group in the Architecture). Some faculty instructors who could not make the group interview were interviewed by individual Committee members or contributed detailed comments. Two of the three Departments’ head faculty advisers served on the review committee, and the head faculty adviser for the third was also interviewed. The Committee also solicited comment from the College advising staff concerning problems they have heard from students, and reviewed course evaluations over the last three years. Finally, the larger set of issues involving undergraduate education in the College were discussed throughout 2004-05 by the College Executive Committee, with several preliminary reports made of this review committee's progress and with important concerns being forwarded by the College Executive Committee to this committee.

It did become clear quickly, however, that different instructors often had significantly varying emphases on skills and concepts being taught under the same course number. Instructors commonly were not aware of what other instructors were doing. The review Committee decided to designate a member to convene the different instructors of the same course together to work out a common statement of the themes and goals of the course which could be used (a) to inform future new instructors of what the College sought to have covered in the course; (b) to signal the junior colleges better of what CED was looking for in articulated courses; and (c) to move current instructors toward a common minimum set of themes and skills that they would each address in their teaching. It remains for the instructor to choose how best to teach the themes and skills, but the College needs assurance that a basic set of themes and skills will be covered in a
core course regardless of the instructor. The resulting statements from current instructors are included in this report.

The process for approving changes in the core curriculum is unclear. In the past, courses have changed content simply as instructors changed. We expect our proposal to be reviewed by the College Executive Committee and by the faculty in each Department. Only after such reviews would the College Executive Committee vote whether to approval all or part of the recommendations. We suggest that that vote be the formal College approval, but recognize that the Committee may choose some other process. Given the difficulty of assembling the full College faculty and that such meetings have not occurred for several years, and when occurring often lack quorums, we believe that approval by a College-wide faculty meeting is unrealistic. Such a meeting is also unnecessary under existing rules since the curricular directions proposed in this report include no structural changes in the courses that are required of students in the College for their degrees.
APPENDIX B

Objectives and Principles for ED11A
Introduction to Visual Representation and Drawing

Objectives:

• The development of skill and confidence in the use of drawing and related forms of representation as a means of understanding, investigating and describing the environment.

Principles:

• Contour, gesture and line.
• Tone, shade and shadow.
• Positive and negative space.
• Scale, proportion and perspective.
• Color, form, texture and collage.
• Composition and the creative process.
• 3-D visualization and the representation of ideas.
• Conventions of design; plans, section and elevation.
• Elements of graphic design; introduction to Photoshop, digital photography and the scan.

Methods:

• Lectures.
• Smaller assignments and hands-on projects.
• Summary project which synthesizes the principles of ED11A.
APPENDIX C

Objectives and Principles for ED11B
Introduction to Visual Representation and Drawing

Following are thoughts of the faculty who have been responsible for teaching the majority of ED11B offerings the past five (5) years. Although we each have a unique perspective on 11B, we share a sense of the fundamental premise of the course, the primary learning objectives for the course, and the essential skill sets that students should possess as they move on to other coursework.

The fundamental premise of the course is that it is a design studio, with landscape, architecture and urban space as the subject of design. The active process of design is both the essential content and the primary activity of 11B. This is different from courses such as ED1 and ED4, where the subject might best be understood as ‘learning about’ design, but the process is less centered on ‘how to’ design. Simply stated, 11B starts the process of learning ‘how to’ design; how to think, make and see the world through design.

Within that very large frame of reference, the broad objectives of the course are:

Objectives:

- To further the process begun in ED1/4 of learning to read the built environment as those responsible for its design and construction.

- To further the process begun in ED1/4 of learning the language of design and the built environment, including its formal, social and spatial dimensions.

- To provide an exposure to a range of intellectual and cultural points of reference that can substantiate and support design thinking.

- To provide an overview of a variety of processes, iterations and methodologies through which design can be explored and studied.

- To begin the process of learning ways in which program, use, human activity and the human dimension act as essential components of design thinking.

- To begin the process of learning how material exploration and a commitment to craft act as essential components of design thinking.

- To offer standards for what constitutes good design, and provide an overview of current directions within the disciplines of the landscape, architecture and urban design.
The specific skill sets students should have when leaving the course are:

- The ability for students to ‘see’ the built environment, and critically assess what they are seeing.
- Knowledge of essential conditions of site, including topography, ground, orientation and climate.
- Knowledge of subjects of analysis and of methods for analyzing the built environment, in an effort to understand things both more precisely, and more abstractly.
- Knowledge and ability in the language of hand drawn two-dimensional exploration and representation, including plan, section and elevation, both in constructed and in sketch form.
- Knowledge and ability in the language of three-dimensional exploration and representation, including model making, perspective drawing and projected drawing techniques.
- Knowledge and ability in the verbal discussion and presentation of design ideas, and the ability for students to articulate values and objectives for their work.
- Knowledge of primary computer applications and processes related to design conceptualization, exploration and representation.
- Knowledge and ability in how to set in motion good design thoughts and actions.

As a final thought on the personnel allocation for the course, we feel strongly that the appropriate model is for a lead instructor with a full complement of GSIs who are responsible for teaching all of the sections. The course is unnecessarily compromised when the lead instructor has to both supervise the GSIs and teach a section. An alternate model would be to teach the course similar to Architecture 100A/B, where a lead instructor teaches a section in conjunction with other instructors of comparable ability.