Board of Regents, State of Iowa

REQUEST TO IMPLEMENT A NEW BACCALAUREATE, MASTERS, DOCTORAL OR FIRST PROFESSIONAL DEGREE PROGRAM

THE PURPOSE OF ACADEMIC PROGRAM PLANNING: Planning a new academic degree program provides an opportunity for a Regent University to demonstrate need and demand as well as the university's ability to offer a quality program that is not unnecessarily duplicative of other similar programs offered by colleges and universities in Iowa.

Institution: **Iowa State University**

Departments involved: **ARCHITECTURE, COMMUNITY AND REGIONAL PLANNING, GRAPHIC DESIGN, INDUSTRIAL DESIGN, INTEGRATED STUDIO ARTS, INTERIOR DESIGN, LANDSCAPE ARCHITECTURE**

CIP Discipline Specialty Title: **Multi-/Interdisciplinary Studies**

CIP Discipline Specialty Number (six digits): **30.9999**

Level: **Master**

Title of Proposed Program: **MASTER OF DESIGN IN SUSTAINABLE ENVIRONMENTS**

Degree Abbreviation (e.g., Minor, B.S., B.A., M.A.): **M. Des.**

Approximate date to establish degree: Month **August** Year **2012**

Contact person(s): (name, telephone, and e-mail)

Clare Cardinal-Pett, Ad Hoc Committee Chair

515-294-8711 ccardp@iastate.edu

Marwan Ghandour, Associate Dean for Academic Affairs, College of Design

515-294-7427 marwang@iastate.edu

Please provide the following information (use additional pages as needed).

1. Describe the proposed new degree program, including the following:

   a. A brief description of the program and a statement of objectives including the student learning outcomes and how the learning outcomes will be assessed;

Mission Statement:

Sustainable design strategies, systems, and materials for environmental and product design. Ways of envisioning, making and remaking art, landscapes, communities, buildings, and objects of everyday use that conserve resources, ameliorate ecological problems, and promote social, political, and economic justice.

Target audience:
Students with professional degrees in art, architecture, landscape architecture, interior design, graphic design, industrial design, planning, and engineering. We hope to have the degree approved by Fall 2011 in order to recruit students for entering the program in Fall 2012.

General program structure:

A 3-semester, 35 graduate credit course of study that offers opportunities for students to work in interdisciplinary teams on a variety of faculty-directed projects that may include funded basic and applied research, community-based design work, and theoretical investigations. The program addresses issues of sustainable design at multiple scales, engaging both systems and artifacts.

Key Outcomes:
Gain awareness of individual professional roles and responsibilities for new practices, technologies, and methods of design for sustainability.

Learn the ability to engage in critical reflection in a team-based, interdisciplinary design process.

Acquire new knowledge and skills in sustainable design that support entrepreneurship and professional leadership in the development of opportunities and markets for artists and designers.

Assessment:

The nature of studio pedagogy results in constant observation and evaluation of student work (outcomes) by a broad sector of the faculty and visiting professionals via public reviews and exhibitions of that work. Students consistently are involved in assessment of their learning through reflection and self-critique of this same work. As such, the assessment of student outcomes is an extension of the studio pedagogy of the college. Assessment that occurs in concert with strategic planning and catalog revisions and by departmental advisory boards provides additional layers of informal review to stimulate positive change.

For this new degree program additional and specially targeted assessment strategies will be developed. Students learning will be assessed through a combination of 4 different methods:

1. The College of Design student course evaluation system with a supplementary set of questions that target this new degree program more specifically. The standard set of questions will be used along with the supplementary set developed by the program director and associated faculty.

2. A student entry/exit survey instrument developed by the College.

3. A faculty review at the end of every semester. This review will include a survey and formal discussion of student work coordinated by the program director and including all program faculty. Documentation of this review will include a record of student work along with comments, discussion, and recommendations for program modification.

4. An alumni survey instrument that will be developed to track students in the work place at least 2 and 6 six years after graduation.

The program director and faculty, under the leadership of the Associate Dean for Academic Programs, will review the data from all methods comprehensively every 2 years and make formal recommendations for modifications to courses and curriculum.

Curriculum Outline:

FALL

Foundations of Sustainable Design (3 CR)

Sustainable Design Colloquium (3 CR)

Electives (9 CR)

SPRING

Human Dimensions of Sustainable Design (3 CR)

Sustainable Design Colloquium (1 CR)

Sustainable Design Studio I (5 CR)

Electives (3 CR)

SUMMER

Sustainable Design Studio II (5 CR)

Electives (3 CR)

ELECTIVES

15 graduate credits total are required, with 6 credits determined by student and advisor; 9 credits chosen from each of three categories:

SOCIAL EQUITY

ENVIRONMENTAL STEWARDSHIP

ECONOMIC VIABILITY

Courses approved for these categories are determined by program faculty and updated on a regular basis. See Appendix D for a sample list of current courses that might constitute the Fall 2012 choices.

b. The relationship of the proposed new program to the institutional mission and how the program fits into the institution's, college's, and department/program's strategic plan;

Sustainable practices are important features of the college and university mission statements and strategic plans. When President Geoffroy shared his thoughts on the CoD's strategic plan at the end of 2009, sustainability came up in almost every one of his points. The CoD's 2005-2010 strategic plan declares its desire for "environmental stewardship, community design, preservation and growth." The CoD strategic planning process now underway calls out the capacity of the College to "become a necessary reference for its innovative approaches to multidisciplinary integration in its pedagogies, social and environmental impact activities, and scholarly inquiries." Finally, the University's 2010-2015 strategic plan also addresses sustainability by simply stating a desire to make the world a better place. More specifically it says, "Iowa State will lead in developing more sustainable ways to produce and deliver safe and nutritious food, water, materials, and energy; integrate the protection of plant, animal, and human health; and care for our environment." See Appendices A, B, and C for document excerpts. For information about interdisciplinary program administration see attached excerpt of the proposed structure of the College of Design, pending approval in Spring 2012.

c. The relationship of the proposed new program to other existing programs at the institution; describe how the proposed program will enhance other programs at the university.

Sustainability studies are important components of a number of departments and programs at Iowa State University. Agriculture offers an MS and a PhD in sustainable agriculture, the first and only such degrees in the US. There are a number of initiatives underway in LAS, Business, and Engineering to develop interdisciplinary courses and programs that address sustainability. The College of Design has been an important voice in the emerging campus-wide interest in sustainability. The art, design and planning disciplines will be central to new solutions for a sustainable planet. The proposed graduate degree will allow the College of Design to assume an appropriate level of responsibility in the emerging discourse on campus, nationally, and internationally. Our curriculum allows students to enjoy the benefits of the university and will create opportunities for engagement (teaching and research) across all programs at ISU. We expect that our proposed degree program will help increase enrollment in courses in other colleges but will lead to the development of new courses, colloquia, and symposia.

See Appendix E for sustainability courses offered in other colleges at Iowa State University.

d. The relationship of the proposed new program to existing programs at other colleges and universities in Iowa, including how the proposed program is different or has a different emphasis than the existing programs; and

There are no other post-professional programs in sustainable design in Iowa. Other colleges and universities offer coursework that addresses various dimensions of sustainability and some offer certificate programs at both the undergraduate and graduate levels that serve to inform students of general issues and concepts of sustainability. A few schools offer courses in sustainable design at the undergraduate level but none offers a degree in sustainable design in the context of a professional degree program. While the University of Iowa offers degrees in Geography and Planning that include coursework and potential emphases in sustainable planning issues, they do not address the broader concept of interdisciplinary design proposed by this program. This degree would be unique in the state.

See Appendix E for courses offered at other Iowa colleges and universities.

e. Special features or conditions that make the institution a desirable, unique, or appropriate place to initiate such a degree program

Iowa State University is uniquely positioned to offer an interdisciplinary, post-professional degree in sustainable design. The College of Design is one of only a few in the nation to include such a broad array of design disciplines. The university is also home to excellent programs in engineering, business, agriculture, the human sciences, science and the humanities--all of which offer important intellectual opportunities for students and potential for program collaborations.

Students will get exposure to sustainable design through faculty members in diverse design disciplines. This program will also create a community of scholars and students that is highly interdisciplinary, and at the same time highly committed to sustainability and solving problems through design.

Students will have real-life experiences by visiting sites, and engaging in community activities related to sustainable issues. Through the University's position both as a public university as well as its close proximity to Des Moines would allow the program and its outreach projects to reach (and teach) a very broad range of groups and individuals.

In addition to many existing programs on campus, such as the Leopold Center, CBER (The Center for Building Energy Research, http://www.iprt.iastate.edu/cber/index.html), IPRT (The Institute for Physical Research and Technology, http://www.iprt.iastate.edu/index.html), Live Green! Initiative (http://www.livegreen.iastate.edu/), many design faculty members have already established connections with other disciplines on campus, such as engineering and business which would further enhance the educational and social outreach aspects of the program.

Students who are involved in this program will have a unique opportunity to be part of ongoing research programs led by multidisciplinary research groups. Previously there have been high levels of student interest in green building, particular in regards to LEED, and addition of this program would further encourage this.

See Appendix F for Centers and research efforts related to sustainability at Iowa State.

f. Does the proposing institution have personnel, facilities, and equipment adequate to establish and maintain a high quality program?

Yes, but 1 FTE will need to be reassigned to cover required coursework and administrative tasks. Additionally, some new software and equipment will be necessary. We have estimated this annually recurring expense that we have estimated to be $5,000 with a $10,000 first year budget.

g. How does student demand for the proposed program justify its development?

Students in all College of Design degree programs demonstrate a strong interest in sustainable practices. Elective courses devoted to some aspect of the topic are the first to fill. Students graduating with professional degrees seek out other schools with graduate programs in sustainable design. LEED certification is a common goal for many students during internships. International students request information about the College of Design's sustainable design offerings more often than any other post professional concentrations. Thesis topics in Architecture tend to focus on sustainable design issues. The demand is overwhelming and the development of an interdisciplinary sustainable design degree program would be highly marketable locally and globally.

2. Describe the state and/or national workforce need and/or demand for graduates of the proposed program currently and in the near future (provide documentation about the sources of data used to estimate need and demand.)

"Each of us has a part to play in a new future that will benefit all of us. As we recover from this recession, the transition to clean energy has the potential to grow our economy and create millions of jobs – but only if we accelerate that transition. Only if we seize the moment. And only if we rally together and act as one nation – workers and entrepreneurs; scientists and citizens; the public and private sectors." - President Barrack Obama, June 15, 2010

Current economic trends as identified by the Bureau of Labor Statistics (BLS), U.S. Green Building Council (USGBC), the U.S. Council of Economic Advisors, and others (see references) indicate that "green" sustainability-related jobs are on the rise. It is expected that the job market will continue to grow as environmental policy, government tax credits, other incentives, and public awareness continue to support sustainable design, manufacturing, and construction.

In March of 2010, the BLS created a new series of questions in an effort to better identify

green job trends. According to the BLS report (2010), "green" jobs are defined as either:

1. Jobs in businesses that produce goods or provide services that benefit the environment or conserve natural resources.
2. Jobs in which workers' duties involve making their establishment's production processes more environmentally friendly or use fewer natural resources.

Unfortunately green BLS data will not be available until 2012 however based upon initial trends identified by the USGBC, green or sustainability-related jobs will continue to grow. Existing BLS analysis of green jobs by industry demonstrate potential for continued growth in green construction and green professional and business services but at this point specific job opportunities have not been clearly identified (BLS, 2010).

Number and percent distribution of establishments in industries where green goods and services are classified, by industry sector, 2009

Industry sector	Number of establishments	Percent distribution
Construction	820,700	38.1
Professional and business services	779,100	36.2
Other services (Repair and maintenance services, Professional organizations)	183,300	8.5
Natural resources and mining	88,700	4.1
Information	77,000	3.6
Manufacturing	77,700	3.6
Trade, transportation, and utilities	49,300	2.3
Public administration	42,100	2.0
Education and health services	26,400	1.2
All other sectors	10,400	0.5
Total	2,154,700	100.0

In an independent study created for the USGBC, authors Booze, Allen, and Hamilton (2009) state:

> **The results of this study show that the economic impact from green building construction is significant and will continue to grow as the demand for green buildings rises. Green construction spending currently supports over 2 million jobs and generates over 100 billion dollars in gross domestic product and wages. By the year 2013, this study estimates that green buildings will support nearly 8 million jobs across occupations ranging from construction managers and carpenters to truck drivers and cost estimators. USGBC also supports job creation and economic activity. LEED-related spending has already generated15,000 jobs since 2000, and by 2013 this study forecasts that an additional 230,000 jobs will be created (p. ii).**

These economic trends were supported in another study titled "Preparing the Workers of Today for the Jobs of Tomorrow" conducted by the U.S. Council of Economic Advisors (2009), who argue that there is strong growth potential in "fields related to clean energy production and environmental protection…particularly for workers with technical skills" (p. 7). This report examines employment sectors that are expected to grow and develop. It is anticipated that the American Recovery and Reinvestment Act (ARRA) will create

new opportunities in already-expanding industries such as renewable energy production and distribution. Authors of the report go on to describe environment-related jobs as cited below:

> **The environment-related jobs we consider are environmental engineering technicians, environmental engineers, environmental scientists and specialists (including health), and environmental science and protection technicians (including health). Clearly, the U.S. labor market is already becoming increasingly "green" through the growth in these occupations. Jobs devoted to environmental improvement grew far faster than other occupations from 2000-2006 and the BLS projects fast relative growth through 2016.**

These environmental jobs account for only a small fraction of a growing list of occupations and industries that are becoming increasingly devoted to clean energy production, energy efficiency, and environmental protection. Investments in the ARRA will also help support jobs that will improve the energy efficiency of homes and buildings, adding to the already strong growth expected in construction. Investments in renewable energy will add employment to industries as diverse as wind turbine manufacturing and agriculture. Distributing power through an updated, more efficient, system will require even more electrical power line installers and repairers, which was already a growing occupation according to the BLS projections (U.S. Council of Economic Advisors, 2009, p. 8).

As the United States continues to provide incentives through the ARRA for improved infrastructure and energy-efficient design and development, job opportunities within planning, architecture, landscape architecture, industrial design, and other related design fields are likely to increase as well. Educational programs focused on improving environmental conditions will likely see the most growth.

3. List all other public and private institutions of higher education in Iowa currently operating programs similar to the proposed new degree program. (For comparison purposes, use a broad definitional framework, e.g., such identification should not be limited to programs with the same title, the same degree designation, having the same curriculum emphasis, or purporting to meet exactly the same needs as the proposed program.)

   If the same or similar program exists at another public or private institution of higher education in Iowa, respond to the following questions:

   a. Could the other institution reasonably accommodate the need for the new program through expansion? Through collaboration?

   b. With what representatives of these programs has there been consultation in developing the program proposal? Provide a summary of the response of each institution consulted.

   c. Has the possibility of an inter-institutional program or other cooperative effort been explored? What are the results of this study? (Consider not only the possibility of a formally established inter-institutional program, but also how special resources at other institutions might be used on a cooperative basis in implementing the proposed program solely at the requesting institution.)

As previously stated, there are no other programs similar to the proposed at colleges and universities in Iowa. Considering the definitional framework broadly, the Engineering College, the Schools of Urban and Regional Planning Department and Art at the University of Iowa have the most potential to compete for students in our target audience in the future. But there are no similar degrees offered at this time and it is highly unlikely that there ever will be unless Iowa takes on the full complement of professional accredited design programs that Iowa State now supports. We do expect to recruit graduates of those three areas (the arts, planning, and engineering) from the University of Iowa to our proposed degree and would hope that intellectual engagement with related graduate degree programs develops over time in the context of projects, research efforts, colloquia, and symposia.

See Appendix E for sustainability courses and programs currently offered at other institutions in Iowa.

4. Estimate the number of majors and non-majors students that are projected to be enrolled in the program during the first seven years of the program.

    a. Undergraduate **NA**

    b. Graduate

Graduate	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
Majors	**8**	**12**	**16**	**16**	**16**	**16**	**16**
Non-Majors							

    c. What are the anticipated sources of these students?

Students from universities in the surrounding states (MN, WI, MO, IL, ND, SD); students from Iowa State College of Design and College of Engineering; professional planners, engineers, architects, interior designers, Industrial designers and artists and in Iowa and surrounding states. International students and practitioners with profession degrees in art and design fields, planning, and engineering.

5. If there are plans to offer the program away from the campus, briefly describe these plans, including potential sites and possible methods of delivery instruction. **NA**

6. Has the proposed program been reviewed and approved by the appropriate campus committees and authorities? List them:

    The proposed program has been reviewed and approved by:
    - *College of Design Academic Affairs Council*
    - *College of Design Faculty*
    - *Dean of the College of Design*

    Approvals pending include:
    - *Faculty Senate Curriculum Committee*
    - *Faculty Academic Affairs Council*

- *Faculty Senate*
- *Office of the Provost*
- *Office of the President*

7. List date the program proposal was submitted to the Iowa Coordinating Council for Post High School Education (ICCPHSE) and the results of listserv review. (THIS WILL BE FILLED IN BY THE PROVOST OFFICE.)
8. Will the proposed program apply for accreditation? When? **NA**
9. Will articulation agreements be developed for the proposed program? With whom? **NA**
10. Describe the faculty, facilities, and equipment that will be required for the proposed program.

While the proposed degree program can be taught using existing faculty, staff, facilities, and equipment, it is expected that, as the program grows, the following ideal scenario will be put in place:

The proposed program requires seminar and studio spaces to be used by 16 students at once. The need for more than these spaces will depend on the student body that will be accepted to the program. The seminar space will serve a secondary function as a gathering place for in-class presentations and meetings with regional professionals, sponsors, and other stakeholders. A projector, pin-up space, reconfigurable presentation boards and room dividers are required, as the space will have multiple functions. The seminar and the studio spaces will be dedicated to the program and will create a physical space identity over the years suggesting sustainability in the way it is used, maintained, and presented.

Fabrication lab within COD will be used for building mock-ups and full scale models, but there will be an additional space needed for storing material samples and sustainability-related books for students. This additional space can be integrated within the studio as well.

In order to support the research among students and faculty involved, building performance evaluation tools and thermal meters, as well as equipments to test components, soil, water flow and quality are required. In addition to these, software used in research, such as, SPSS, N-VIVO and Concordance will be needed.

A staff member responsible for recruiting and handling issues, such as, application file tracking, curriculum clerical support, and research administration functions is highly desired.

Another personnel need is the director of the program: this person will be in charge of overseeing the program, its strategies, its connections within the university, across universities globally and internationally, and he/she will be teaching one-two core courses within the proposed program. We assume this person will not recieve any course releases unless the program grows well beyond our proposal estimates (which are very conservative).

11. From where will the financial resources for the proposed program come (list all that apply, e.g., department reallocation, college reallocation, grants, new to the university)?

SOURCES	**TOTAL AMOUNT**
Tuition Revenue	**$169,308**

12. Estimate the total costs/total new costs (incremental increases each year in expenditures) that will be necessary for the next seven years as a result of the new program:

	TOTAL COSTS	**TOTAL NEW COSTS**
Year 1 (2012)	$114,000	$114,000
Year 2	$129,000	$15,000
Year 3	$129,000	$0
Year 4	$129,000	$0
Year 5	$129,000	$0
Year 6	$129,000	$0
Year 7	$129,000	$0

Supplemental materials
(to be used at Iowa State University in the review of the proposal):

13. Program requirements, including:
a. prerequisites for prospective students;

Admission to the Graduate College, Iowa State University

A professional degree in one of the following disciplines: studio arts (BFA/MFA), graphic design, industrial design, interior design, architecture, landscape architecture, planning, engineering.

Admission essay or study proposal that is trans-disciplinary in nature; to be reviewed by program committee.

Significant undergraduate coursework or experience in a foundational area- e.g.- stormwater design and management; environmental art; materials science; human cognition, perception and behavior; equity in planning and decision making.

b. language requirements;

English fluency (TOEFL required).

Second language skills desirable but not required.

c. courses and seminars presently available for credit toward the program;

See Appendix D.

d. proposed new courses or modifications of existing courses;

FIRST SEMESTER

Foundations of Sustainable Design (3 credits)
This seminar introduces the broad frameworks and tools for implementing sustainability among a variety of industries and enterprises (in North America?) and investigates the role and opportunity for design strategies in these initiatives. The first half of the term is devoted to a critical reading of frameworks such as Natural Systems Behavior; The Natural Step (medical model that looks upstream to sources of health crises) Natural Capitalism; Industrial Ecology; Biomimicry; The CERES Principle; The Hannover Principles; and LEED. The second half concerns the tools or methods for determining where we are, how we are doing and how to make decisions. These tools include, for example, Ecological Footprint; Ecological Rucksack, Ecoefficiency; Ecolabeling; Life Cycle Assessment; Life Cycle Costing' Environmental management and auditing schemes.

Sustainable Design Colloquium I. (3 credits)
This course folds a graduate seminar into a public lecture series on the discourses and practices of sustainable design and design research. Through the lens of specific designers and projects, the seminar investigates responses to the shifting responsibilities, roles, technologies and methods for studying and advancing the art and science of designing sustainable environments. Invited speakers are drawn from a range of ISU faculty as well as beyond. Guest lecture is preceded and followed by class meetings that read and review the professional context, disciplinary language and issues.

SECOND SEMESTER

Sustainable Design Studio I (5 credits)
Addressing sustainable design at multiple scales of man-made and natural systems and artifacts, this studio engages multi-disciplinary graduate students in a team oriented project-based learning environment. Faculty-directed projects will include theoretical investigations and applications of an interdisciplinary design process.

Sustainable Design Colloquium II. (1 credit)

The 2nd colloquium is devoted to the development of opportunities and markets for artists and designers in this program. A graduate student-led seminar is designed to foster the knowledge and skills to support entrepreneurship, professional networks and leadership in sustainable design practices.

Human Dimensions of Sustainability (3)
This course is grounded in case studies that address a designer's nested interactions with clients, consumers, communities, cultures and biospheres. Through a critical review of case studies in sustainable design, and the development of their own case study, students demonstrate how design decisions operate across scales, markets, social conditions, geographic domains, academic disciplines and zones of professional responsibility.

THIRD SEMESTER

Sustainable Design Studio II (5 credits)
The second studio provides a community-based context for an interdisciplinary design team to work on a variety of faculty-directed projects including funded basic and applied research. This studio addresses sustainable design at multiple scales, engaging both systems and artifacts.

e. thesis and non-thesis options in master's programs;

This degree is a coursework only program of study.

f. implications for related areas within the university;

The proposed graduate degree will create a platform from which the College of Design can activity engage other areas of sustainability studies at Iowa State. It provides a formal interdisciplinary "home base" for campus wide research and curricular initiatives. We also expect all undergraduate programs in the College of Design to benefit enormously from this new academic structure. See Appendix E for other sustainability courses, centers, and programs at Iowa State.

g. admissions standards for graduate programs

Same as Graduate College and TBD

14. Attach to the program proposal memos from the department chair(s), the college dean(s), and other appropriate persons, agreeing to the allocation of new resources and/or the reallocation of resources as described in the Regents questions

15. Attach to the program proposal, letters of support, recommendations, and statements when appropriate:
    a. from programs at the other Regents universities
    b. from programs and departments at ISU which are associated with the proposed program or have an interest in the proposed program

APPENDICES:

A. From Pres. Geoffroy's overarching goals in reference to CoD strategic plan from a meeting held Oct 31, 2009:

3. Be known around the world for the significant impact that our faculty, staff, and students have made in addressing the major problems facing our planet.
3a. ...Ensuring an adequate supply of safe, nutritious food for the world's population
3b. ...Providing sustainable sources of energy to meet the world's need
3c. ...Providing sustainable world infrastructures (transportation, cyber, etc.)
3d. ...Addressing water quality and water availability for the world's population
3f. ...Improving the health of plants, animals, and humans
3e. ...Ensuring the sustainability of our planet in the face of climate change, agricultural development, and the transformation to a biologically based economy.

4. Be a treasured resource for Iowa, our nation, and the world because of the impact we have in improving people's lives.

B. From COD's strategic plan 2005-2010:

To *apply* its knowledge and talent with its many constituents, enriching the intellectual environment of the university community, and improving the visual and experiential environment of state, national and global communities by addressing the interwoven issues of social and economic development, environmental stewardship, community design, preservation and growth.

As a part of our strategic planning process for 2010-2015, the College of Design has worked over the past year to develop a new draft vision:

The College of Design at Iowa State University will shape the evolution of our professions, become the college of choice for exceptional students, faculty and staff, and lead agendas in the intersection of design, art, science and technology to improve quality of life and ultimately benefit all members of society.

To accomplish this vision, we will leverage the college's unique combination of disciplines and the exceptional capabilities of the university to further strengthen its professional education in all design and art disciplines; and will become a necessary reference for its innovative approaches to multidisciplinary integration in its pedagogies, social and environmental impact activities, and scholarly inquiries.

C. From University's 2010-2015 strategic plan:

Mission: Create, share, and apply knowledge to make Iowa and the world a better place.

We must prepare the leaders of our nation and the world. To make the world a better place, Iowa State will call upon its great strengths in student-centered education, global collaboration, and transformational basic and applied research. Iowa State will lead in developing more sustainable ways to produce and deliver safe and nutritious food, water, materials, and energy; integrate the protection of plant, animal, and human health; and care for our environment. We will design tools and infrastructure that will create entrepreneurial opportunities. The major changes sweeping the world are creating extraordinary opportunities for Iowa State to capitalize on its land-grant mission and be at the forefront in addressing our common, global challenges.

D. A short sample list of existing coursework offered at Iowa State that could be options for the proposed degree. There is a wealth of relevant coursework already offered at the graduate level or for non-major graduate credit. Some coursework might require prerequisite waivers on a case-by-case basis. The courses listed below demonstrate the range of possibilities for individualization only and do not constitute a student guide. Further development of a list of recommended electives will happen during the implementation phase of the approved degree:

Social Equity

ARCH 529. Spatial Dialectics in the American Midwest. (3-0) Cr. 3
ARTID 551. Design Humanics. (3-0) Cr. 3. Repeatable. F.S.
ART H 594. Women/Gender in Art. Dual-listed with 394; (Cross-listed with DSN S, W S.) (3-0) Cr. 3.
C DEV 503. Community Development I: Principles and Strategies of Community Change. (3-0) Cr. 3
C DEV 505. Community Development II: Organizing for Community Change. (3-0) Cr. 3.
C R P 529. International Planning. Dual-listed with 429; (Cross-listed with DSN S.) (3-0) Cr. 3.
ENGL 355. Literature and the Environment. (Cross-listed with Env S). (3-0) Cr. 3. *Prereq: Engl 250.* Nonmajor graduate credit.
ENGL 543. Environmental Literature. (3-0) Cr. 3. S. *Prereq: Graduate classification.*
PHIL 430. Value Theory. (3-0) Cr. 3 Nonmajor graduate credit
PHIL 535. Contemporary Political Philosophy. (Cross-listed with POL S.) (3-0) Cr. 3. Alt. S.
PHIL 596. Ecology and Society. Dual-listed with 496; (Cross-listed with EEOB.) (3-0) Cr. 3
SOC 527 Seminar in Social Inequality, (3-0) Cr. 3. Alt. S.
SOC 534 Race, Class and Gender Inequality, (3-0) Cr. e. Alt. S.
SOC 549 Sociology of the Environment, (3-0) Cr. 3. Alt. F.

Environmental Stewardship

A E 511. Bioprocessing and Bioproducts. (Duallisted with 411). (Cross-listed with BSE, BRT, C E). (3-0) Cr. 3. F. Prereq: A E 216 or equivalent, Math 160 or 165, one of Chem 167 or higher, Biol 173 or 211 or higher or BRT 501, senior or graduate classification.
ARCH 558. Sustainability and Green Architecture. (Cross-listed with DSN S.) (3-0) Cr. 3. F
BIOL 381. Environmental Systems. (Dual-listed with 581). (Cross-listed with Env S, EnSci, Micro). (2-4) Cr. 4. F. Prereq: Soc 130, 134 or 3 credits of Env S. (Dual-listed with EEOB 581) Nonmajor graduate credit.
BIOL 472. Community Ecology. (2-2) Cr. 3. S. Prereq: Biol 312. Nonmajor graduate credit.
C DEV 502. Community and Natural Resource Management. (3-0) Cr. 3
C R P 525. Growth Management. Dual-listed with 425; (Cross-listed with DSN S.) (3-0) Cr. 3. F
C R P 545. Transportation Policy Planning. Dual-listed with 445; (3-0) Cr. 3. F
C R P 591. Environmental Law and Planning. Dual-listed with 491; (Cross-listed DSN S, L A.) (3-0) Cr. 3.
ENSCI 522. Water Pollution Control Processes. (Cross-listed with C E). (2-2) Cr. 3. Prereq: 521.
ENSCI 523. Physical-Chemical Treatment Process. (Cross-listed with C E). (2-2) Cr. 3. Prereq: C E 520.
ENSCI 527. Solid Waste Management. (Cross-listed with C E). (3-0) Cr. 3. Prereq: C E 326.
ENSCI 529. Hazardous Waste Management. (Cross-listed with C E). (3-0) Cr. 3. Prereq: C E 326.

ENSCI 531. Design and Evaluation of Soil and Water Conservation Systems. (Cross-listed with A E). (2-3) Cr. 3. F. Prereq: E M 378 or Ch E 356.
ENSCI 574. Environmental Impact Assessment. (Cross-listed with C E). (3-0) Cr. 3.
ENSCI 535. Restoration Ecology. (Cross-listed with EEOB, NREM). (2-3) Cr. 3. F. Prereq: Biol 366 or 474 or graduate standing.
L A 517. Urban and Peri-urban Watershed Assessment. Dual-listed with 417; (2-3) Cr. 3
PHIL 483. Philosophy of Biology. (3-0) Cr. 3. S.
M E 433. Alternative Energy Conversion. (3-0) Cr. 3. F.Prereq: Phys 221/222 and Chem 167. Nonmajor graduate credit.
M E 444. Elements and Performance of Power Plants. (3-0) Cr. 3. S.Prereq: 332, credit or enrollment in 335. Nonmajor graduate credit.
M E 540. Solar Energy Systems. (3-0) Cr. 3. Alt. S., offered 2010.Prereq: 436.
M E 484. Technology, Globalization and Culture. (Dual-listed with 584). (Cross-listed with WLC). (3-0) Cr. 3. F.Prereq: senior classification for 484; graduate classification for 584.
M E 540. Solar Energy Systems. (3-0) Cr. 3. Alt. S., offered 2010.Prereq: 436.
SOC/AGRON/ANTHR/SUSAG 509, Agroecosystem Analysis, (3-4) Cr. 3. F.

Economic Viability

C DEV 506. Community and Regional Economic Analysis I. (3-0) Cr. 3.
C DEV 508. Ecological Economics. (3-0) Cr. 3
C R P 566. Values and Decision Making. (3-0) Cr. 3. F.
C R P 568. Planning and Development. (3-0) Cr. 3. S.
C R P 517. Urban Revitalization. Dual-listed with 417; (Cross-listed with DSN S.) (3-0) Cr. 3 S
C R P 555. Community Economic Development. Dual-listed with 455; (3-0) Cr. 3. Alt. F
ECON 385, Economic Development; (3-0) Cr. 3.
ECON 480/580, Intermediate Environmental and Resource Economics. (3-0) Cr. 3.
ECON 581, Advanced Environmental Economics. (3-0) Cr. 3.
FIN 415. Business Financing Decisions. (3-0) Cr. 3. Prereq: 301 and Stat 326. Nonmajor Graduate Credit
FIN 462. Corporate Risk Management and Insurance. (3-0) Cr. 3. F. Prereq: 301 and Stat 326. Nonmajor Graduate Credit
FIN 472. Real Estate Finance. (3-0) Cr. 3. Prereq: 301 and Stat 326. Nonmajor Graduate Credit

A short sample of other electives with potential application to individual student programs of study in the open elective category--many other possibilities exist

ART 501. Issues in Visual and Material Culture Seminar. (3-0) Cr. 3.
ART H 587. Nineteenth Century Art. Dual-listed with 487; (Cross-listed with DSN S.) (3-0) Cr. 3.
ART H 588. Modern Art and Theory I. Dual-listed with 488; (Cross-listed with DSN S.) (3-0) Cr. 3.
ART H 595. Art and Theory Since 1945. Dual-listed with 495; (Cross-listed with DSN S.) (3-0) Cr. 3
ARTGR 572. Photography and Narrative Message. Dual-listed with 472; (0-6) Cr. 3.
ARTGR 578. Design for E-Commerce/Graphic Applications. Dual-listed with 478; (0-6) Cr. 3
ARTID 552. Design Methods. (2-0) Cr. 2. Repeatable, maximum of 10 credits. F.S.
ARTID 569C. Advanced Studies in Interior Design: Sustainability. Dual-listed with 469; Cr. 3
ARTID 593. Workshop. Cr. 1-3. Repeatable. F.S.SS.
ArtIS courses in Wood, Ceramics, Photography, Metalsmithing, Drawing, Painting, Textile Design, Printmaking … and … Character Animation and Gaming
C R P 561. Planning Theory for Practice. (3-0) Cr. 3. S
C R P 581. Regional and State Planning. Dual-listed with 481; (3-0) Cr. 3. Alt. S
C R P 584. Sustainable Communities. Dual-listed with 484; (Cross-listed with DSN S.) (3-0) Cr. 3. Alt. S
C R P 551. Introduction to Geographic Information Systems. Dual-listed with 451; (2-2) Cr. 3. F.S.SS.
C R P 552. Geographic Data Management and Planning Analysis. Dual-listed with 452; (2-2) Cr. 3. S.
C R P 553. Analytical Planning/GIS. (2-2) Cr. 3. F.
C R P 564. Introduction to Analytical Methods for Planning. (3-0) Cr. 3. F.
C R P 592. Land Use and Development Regulation Law. (3-0) Cr. 3. F
Dsn S 558. Sustainability and Green Architecture. (Cross-listed with Arch). (3-0) Cr. 3. F. *Prereq: Graduate standing.*
Dsn S 567. Preservation, Restoration, and Rehabilitation. (Cross-listed with Arch). (3-0) Cr. 3. S. *Prereq: Senior classification.*
EnSci 381. Environmental Systems. (Dual-listed with 581). (Cross-listed with Biol, Env S, Micro). (2-4) Cr. 4. F. Nonmajor graduate credit.
EnSci 406. World Climates. (Cross-listed with Agron, Mteor). (3-0) Cr. 3. F. Prereq: Agron/Mteor 206. Nonmajor graduate credit.

EnSci 504. Global Change. (Dual-listed with 404). (Cross-listed with Agron, Mteor). (3-0) Cr. 3. S.
EnSci 507. Watershed Management. (Dual-listed with 407). (Cross-listed with NREM). (3-3) Cr. 4. S.
EnSci 511. Hydrogeology. (Dual-listed with 411). (Cross-listed with Geol). (3-2) Cr. 4. F. Prereq: Geol 100 or 201; Math 165 or 181; Phys 111 or 221.
EnSci 520. Environmental Engineering Chemistry. (Cross-listed with C E). (2-3) Cr. 3. Prereq: Chem 177 and 178, Math 166.
EnSci 521. Environmental Biotechnology. (Cross-listed with C E). (2-2) Cr. 3. Prereq: C E 326.
EnSci 524. Air Pollution. (Dual-listed with 424). (Cross-listed with C E, A E). (1-0) Cr. 1. Prereq: Phys 221 or Chem 178 and either Math 166 or 3 credits in statistics. Senior classification or above. 1 cr. per module. Module A prereq for all modules; module B prereq for D and E.
EnSci 534. Contaminant Hydrogeology. (Dual-listed with 434). (Cross-listed with Geol). (3-0) Cr. 3. S. Prereq: Geol 511 or equivalent.
L A 521. Advanced Planting Design. Dual-listed with 421; (2-3) Cr. 3. S
L A 571. Landscape Architectural Theory. (3-0) Cr. 3. S
M E 436. Heat Transfer. (3-2) Cr. 4. F.S.Prereq: 335.
M E 441. Fundamentals of Heating, Ventilating, and Air Conditioning. (3-0) Cr. 3. F.Prereq: Credit or enrollment in 436.
M E 442. Heating and Air Conditioning Design. (1-5) Cr. 3. S.Prereq: 441.
SusAg 571. Agroforestry Systems. (Cross-listed with NREM). (2-3) Cr. 3. Alt. F
SusAg 610. Foundations of Sustainable Agriculture. (Cross-listed with A E, Anthr, Soc, SusAg, Agron). (3-0) Cr. 3.

E. Courses at ISU and other regents institutions addressing sustainability:

All courses addressing sustainable issues at Iowa State University have been compiled here: http://www.stuorg.iastate.edu/esw/ESW_Sustainable_Courses/Departments.html

All courses addressing sustainable issues at community colleges and universities in Iowa have been complied here:
http://www.livegreen.iastate.edu/docs/iowa-green-curriculum-guide.pdf

F. Research Centers and research projects at Iowa State Universities addressing sustainability:

http://instr.iastate.libguides.com/data/files//16328/ISU%20centers%20and%20programs.pdf

http://instr.iastate.libguides.com/data/files//16330/ISU%20Research_Grants.pdf

4. Mission and Name

4.1 Mission. As part of its strategic planning and proposed reorganization, a new mission statement for the College may need to be crafted. While the actual mission will need to be discussed and finalized, the current mission statement should be used as a starting point: *The College of Design cares about the conditions in which humans live, regardless of economic, social, and cultural backgrounds, and strives to improve the quality of life for everyone.*

The current mission statement is attached as Appendix 6.3

4.2 Core Values. Core values in support of that mission include:

- A commitment to the land-grant mission of Iowa State University and to the people of the State of Iowa.
- A sense of academic and professional community that manifests itself every time there is an opportunity.
- Collaboration within and outside the college.
- Appreciation of multiple cultures and diversity.
- Interdisciplinary teaching, research, and outreach.
- Pride in the professional competency of our students and their abilities.

5. **Administrative Organization and Implementation**

5.1 Description of the College. The reorganization of the College of Design will enhance both its component disciplines and the College as a whole in order to reinforce shared values and aspirations as well as goals for the future. Since the department is the basic administrative unit within the university, this plan reorganizes the College into seven departments:

- Architecture
- Community and Regional Planning
- Graphic Design
- Industrial Design
- Integrated Studio Arts
- Interior Design
- Landscape Architecture

The seven departments will make the College of Design a center of creativity that values collaboration and is engaged with multiple constituencies. It will enhance the capacity and talent of the faculty and focus on core expertise in design, as well as increase recognition by other units across the university that design is critical for their activities. It will enable the College to intensify its focus on research and graduate education and promote itself as a holistic unit. In addition, the departments' collaboration will be encouraged by existing infrastructure, including the King Pavilion, an environment that fosters cross-disciplinary cooperation, as well as resources in the main building.

5.2 Dean's Office
(A diagram of the proposed organizational structure can be found in Appendix 6.4.)

5.3 Departments. The College will consist of seven departments:

- Architecture
- Community and Regional Planning
- Graphic Design
- Industrial Design
- Integrated Studio Arts (includes the areas of Integrated Studio Arts, Art History, Biological and Premedical Illustration, and Art Education)
- Interior Design
- Landscape Architecture

The term department is a widely recognized term within the university and beyond and departments are "the basic administrative unit within the university. It includes all staff members engaged in teaching, research, and extension activities related to that particular academic discipline. All members of the faculty are affiliated with at least one academic department. All tenured faculty hold tenure in a department (ISU Faculty Handbook Section 2.5). Thus all members of the faculty in the College of Design will be affiliated with an academic department and the seven departments will be the tenure home(s) for College of Design faculty.

Although the seven departments will collaborate and enrich each other, each department will remain in charge of their curriculum, promotion and tenure, and hiring. The seven departments will also be represented on Academic Affairs, Faculty Development, and Liaison Councils. In addition, according to Article II, Section 5 of the *Faculty Senate Constitution*: "Each department is entitled to one senator elected by the faculty of the department." To that end each department will need to develop a Governance Document that includes information specific to their mission and governance domains, as well as policies and procedures of operation; it should parallel the type of information contained within the College's Governance Document.

While some of the other councils and boards may be eliminated, combined, or restructured, College of Design faculty and students may be best served by partnerships between departments with common interests or "at-large" membership on some decision-making bodies, rather than requiring every department to be represented on all committees as had been the case previously.

Toward that end, the Liaison Council will initiate a Committee-on-Committees to review all college committees and make a recommendation by Spring 2012 to the faculty and staff concerning college committees.

5.4 Department Chairs. Each of the seven departments will be directed by a Chair. The Chair will be the chief academic officer of the department and will report to the Dean. The Chair is responsible for leading the overall work of the department in the areas of teaching, research, and service; preparing and administering the departmental budget; and

recommending personnel actions and merit salary recommendations. The Chair will also be responsible for the overall academic supervision of the department's students, as well as recruiting quality faculty and students, facilitating faculty development, developing and implementing quality academic programs, and advancing departmental resources and program quality.

5.5 Faculty. All faculty will hold their academic appointments in departments ("home department"). All matters of tenure and promotion will be decided according to the rules and procedures of the home department. Faculty members also may be identified with an interdisciplinary program. In such cases, the terms of the interdisciplinary appointment and its effect on the faculty member's responsibilities in the home department will be clearly outlined in the faculty member's PRS. The PRS, and any subsequent revisions to it, will be agreed upon by the faculty member, the department chair of their home department, and, when appropriate given the nature of the appointment, the director of the interdisciplinary program with which the faculty member is identified. Any change to the faculty member's responsibilities in their home department or interdisciplinary program will be reflected in a revised PRS. A department chair will be responsible for annual reviews and the promotion and tenure process. However, when the appointment includes participation in an interdisciplinary program, the interdisciplinary program director will be expected to contribute their assessment of faculty performance related to that program to the home department chair.

5.6 Promotion and Tenure Guidelines. In addition, the Liaison Council will request the Faculty Development Council to examine and propose a promotion and tenure process for faculty involved with interdisciplinary programs by Spring 2012. These policies and processes should be similar to and consistent with those processes already established in the departments, the College, and the university. In the meantime current Promotion and Tenure (P&T) policies will remain in place through spring 2018 for faculty already affiliated with the College of Design. Those faculty will have the option to utilize either the former or the newly established criteria during the transition period. Full transition to the new P&T Guidelines will be fully accomplished by Spring 2018. Any new faculty hired by the college after the approval of the reorganization plan will follow the new P&T Guidelines.

5.7 Interdisciplinary Program Directors. There are precedents to inform the organization of multidisciplinary programs at ISU. Most intercollegiate, multidisciplinary programs are administered directly by the Graduate College, have an identified faculty group that is responsible for establishing the curriculum, and have faculty that hold their academic appointments in "home" departments. In the case of these graduate intercollegiate programs, governance is typically by a defined faculty and a faculty chair or director, who typically reports to the Graduate College. The Graduate College's Graduate Council serves in an advisory capacity to the Dean of the Graduate College, approves new graduate programs, and establishes educational policies that govern graduate education throughout the College.

However, it should be noted that the College of Design has a long history of engaging in interdisciplinary programs. Part of our efforts with this reorganization focus on formalizing some of our existing programs (such as the common undergraduate first-year CORE program) and some new degree programs that have previously been administered under the umbrella of Design Studies. Under this organizational arrangement these programs were without standing with regard to hiring, curriculum development, or representation in shared governance. Within this reorganization process efforts have been made to formalize their standing with regard to curriculum development, resource allocation, and shared governance while enhancing their visibility within the College.

Borrowing somewhat from the model used by the university in the graduate college and based upon the College's history and intensions, it is proposed that each interdisciplinary program and degree in the College of Design will have a Director who is responsible for leading the overall work of the program in the areas of teaching, research and service; preparing and administering the program's budget; providing input on faculty hires and student and faculty recruitment; and leading faculty development including faculty reviews. The Director will be the main point of contact for students in the program and those seeking information about the program. Directors will have authority to initiate all transactions necessary to compensate and incentivize departments for their participation in the delivery of the curriculum, and will administer the budget associated with these transactions.

5.*8 Interdisciplinary Program and Degrees and Affiliated Faculty.* All interdisciplinary programs and degrees will have an identified faculty group that is responsible for establishing, advancing, and implementing the curriculum. The Director, in collaboration with this faculty group, will manage the resources allocated to that program for scholarship and faculty incentives.

5.9 Curriculum Development. The Liaison Council will request that the Academic Affairs Council examine and propose a curriculum review and approval process for interdisciplinary programs by Spring 2012. These policies and processes should be similar to, and consistent with, those already established in the college.

5.10 Policies and Procedures for Interdisciplinary Faculty and Students. The Liaison Council has requested the Design Caucus and the Student Affairs Council review policies and procedures and suggest any additions or modifications that may be necessary to accommodate and protect faculty and students affiliated with interdisciplinary programs by Spring 2012.

5.11 Scholarship, Research, Outreach & Creative Activities. Created in 1993, the Institute for Design Research and Outreach (IDRO) encompasses the research, extension, distance education, and outreach functions of the College of Design, working with outside organizations to address real-world problems and develop initiatives.

The College, with its new administrative structure, will be in a position to enhance its national leadership in all areas of scholarship, research, outreach, and creative activity. IDRO, as well as the efforts of faculty, staff, and students, both individually and in collaboration, will enable the College to continue to focus on scholarship that integrates design with problem solving as well as creative artistic expressions.

The Liaison Council will request the formation of a Review committee that in partnership with IDRO will assess its structure and operations and make recommendations concerning how those might be improved to support the College's research, outreach, and extension activities. The Review committee will also work with IDRO to create a plan for developing the necessary resources and personnel to support research within the College of Design by Fall 2012.

5.12 Governance. The Liaison Council will request the establishment of an ad hoc Governance Committee to examine and draft a new Governance Document for the College by Fall 2012. The governance document describes the college's mission, governance domains, governance structure, and other policies and procedures.

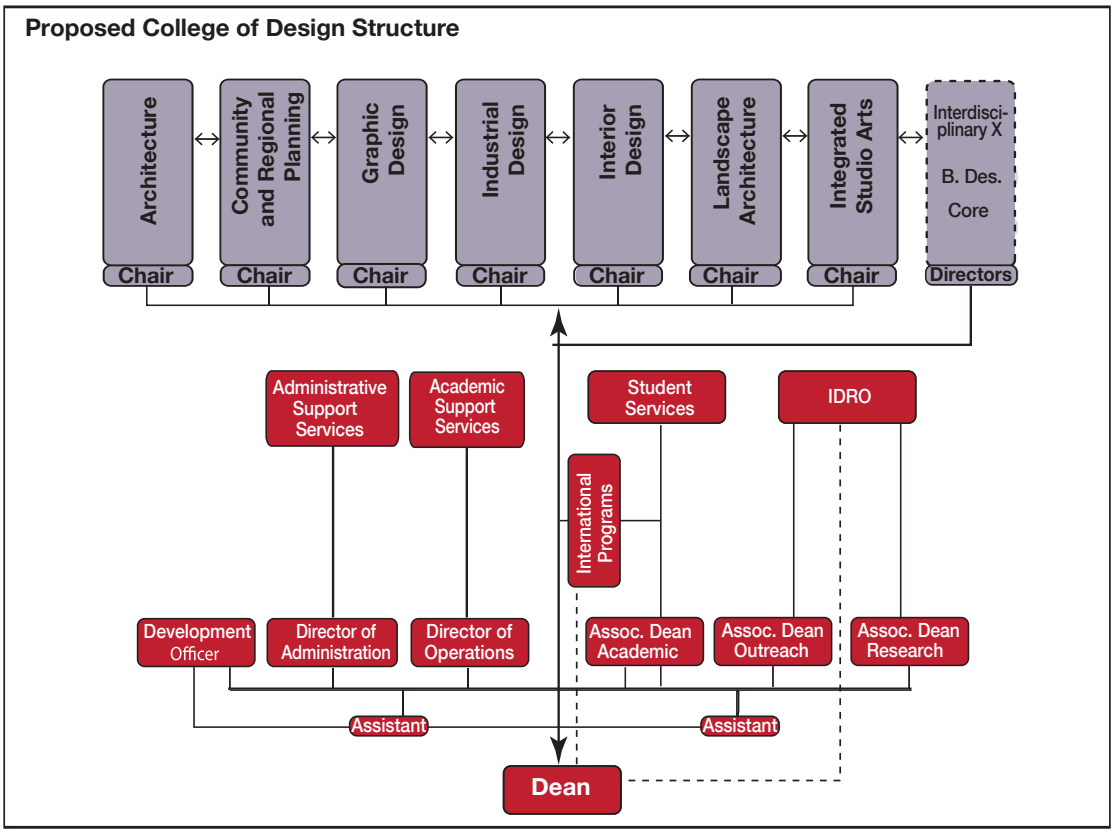
As noted in the discussion above, the issues regarding the implementation of this plan will be addressed by councils and committees established within the College of Design and recommendations shall be brought back to the faculty and staff for a vote. A timeline that denotes these activities can be found in Appendix 6.5.

Lastly, two years after this plan has been implemented in full, it is the intent of the Liaison Council to revisit the results of this reorganization to identify what aspects are working well and to recommend changes in order to improve the structure and administration of the College of Design.

6. Appendices

Appendix 6.1	Interim Organizational Structure Diagram
Appendix 6.2	Liaison Council Planning Committee Membership
Appendix 6.3	College of Design's Current Mission Statement
Appendix 6.4	Proposed Organizational Structure Diagram
Appendix 6.5	Implementation Timeline Chart
Appendix 6.6	List of Degrees offered by the College of Design

Appendix 6.4


Proposed College of Design Structure
Architecture
Community and Regional Planning
Graphic Design
Industrial Design
Interior Design
Landscape Architecture
Integrated Studio Arts
Interdisci-plinary X
B. Des. Core
Chair
Chair
Chair
Chair
Chair
Chair
Chair
Directors
Administrative Support Services
Academic Support Services
Student Services
IDRO
International Programs
Development Officer
Director of Administration
Director of Operations
Assoc. Dean Academic
Assoc. Dean Outreach
Assoc. Dean Research
Assistant
Assistant
Dean

IOWA STATE UNIVERSITY

Office of the Dean
College of Design
Ames, Iowa 50011-3091
515 294-7428
FAX 515 294-9755
E-mail isucod@iastate.edu
http://www.design.iastate.edu

Memorandum

To: Suzanne Hendrick, Ph.D. Academic Affairs Council Chair

From: Luis Rico-Gutierrez. Dean, College of Design

CC: Clare Cardinal-Pett, M.Des. in Sustainable Environments Committee Chair.

Re: Master of Design in Sustainable Environments

Date: Friday, April 8, 2011

It is with great pleasure that I write to you today in support of the new Master of Design in Sustainable Environments. This new degree is uniquely position to address the strategic goals of Iowa State University that relate to sustainability by providing a curricular venue for the interest and strengths of many of our faculty. The balance between the built and the natural environment is critical for the future of our society and a degree like the one proposed has the potential to enrich different professions and respond effectively to this need. Trends show increased interest by potential U.S. and international students in a degree in sustainable environments, and we are uniquely qualified to serve that growing pool of applicants.

I'm well aware of the resources and responsibilities required for the success of the program and approve the proposal.

Best wishes in your deliberations.

IOWA STATE UNIVERSITY

Office of the Dean
College of Design
Ames, Iowa 50011-3091
515 294-7428
FAX 515 294-9755
E-mail isucod@iastate.edu
http://www.design.iastate.edu

To: Clare Cardinal-Pett, M Des in Sustainable Environments Committee Chair

From: Marwan Ghandour, Associate Dean

Date: Monday April 4, 2011

Subject: Master of Design in Sustainable Environments Degree Proposal

The Master of Design in Sustainable Environments degree proposal is part of new interdisciplinary academic initiatives in the College of Design. The degree builds on existing faculty expertise in the College of Design; courses on sustainable design are offered in the different professional programs where faculty have introduced multiple design studios and research projects. In that sense, the degree consolidates these expertise and coordinate courses across departments to provide a comprehensive graduate knowledge on sustainable design practices. Furthermore, the degree utilizes the growing course offerings on sustainable practices at Iowa State University at large.

The degree also responds to a growing need for design professionals in practice that are knowledgeable of the methods, tools and application of sustainable design. Being a post-professional degree, this degree proposal provides an academic opportunity for practicing professionals that want to update and expand their practice to cater for the growing demand for sustainability in the built environment. The possibility of finishing the degree in one calendar year makes it more plausible for professionals to enroll in this degree. Expanding the College of Design offerings for professional practitioners will enlarge and diversify the graduate population in the college and create a stronger interface with the various professions.

Similar to other interdisciplinary degrees proposed by the college, the M Des in Sustainable Environments introduces integrated professional practice, i.e. includes multiple professional fields, as a new form of advanced professional education. This will set the College of Design at Iowa State University apart from other design schools in producing models of integrated design practices in the future.

Finally, once implemented, this degree will reinforce areas of academic growth for graduate education in the College of Design by expanding the scope of graduate course offerings for current students and providing new opportunities for applied design research for faculty.

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Department of Landscape Architecture
College of Design
Ames, Iowa 50011-3094
515 294-5676
FAX 515 294-2348
e-mail: landarch@iastate.edu

TO: Marwan Ghandour, Associate Dean for Academic Programs
FROM: Doug Johnston, Professor and Interim Director
DATE: 11 November 2011
SUBJECT: Faculty Approval of Sustainable Environments Masters Degree

At its department meeting of October 26, 2011 faculty from the Department of Landscape Architecture unanimously voiced its support of the Master of Sustainable Environments program proposal. Since it's inception as an American profession, the practice of landscape architecture has engaged in improving the environmental quality of urban dwellers, and enhancing the quality of urban life for all segments of society. Landscape Architects popularized the application of ecological principles through regional landscape planning and management as well as in urban environments. Currently faculty are engaged in research and teaching in urban stormwater management, ecological design, bioremediation, urban vegetation systems and performance, walkability and multimodal transit, and others.

Faculty in the department of Landscape Architecture look forward to engaging with others in the college in the development and implementation of the program

IOWA STATE UNIVERSITY

Department of Community and
Regional Planning
146 College of Design
Ames, Iowa 50011-3095
515 294-8958
FAX 515 294-2348

TO: Marwan Ghandour, Associate Dean for Academic Programs
FROM: Doug Johnston, Professor and Interim Director
DATE: 11 November 2011
SUBJECT: Faculty Approval of Sustainable Environments Masters Degree

At the Department Meeting on October 28, 2011, the faculty of the Department of Community and Regional Planning unanimously voiced its approval of the proposed Sustainable Environments Masters Degree. Support for the degree is based on its consideration of use of existing faculty expertise and courses to build the new program from a foundation of strength and then to add resources as the program grows. It also understands the notion of the degree in sustainable environments to focus on all aspects of the definition of sustainability including energy and ecology, economic, and social dimensions by addressing issues of the designed (human modified)environments and using planning and design methods to address current gaps in sustainability practice.

Faculty in the department of Community and Regional Planning look forward to engaging their expertise in sustainable communities, social justice, poverty alleviation, transportation, and environmental planning in the development and implementation of the program.

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Department of Art and Design
College of Design
Ames, Iowa 50011-3092
515 294-6724
FAX 515 294-2725

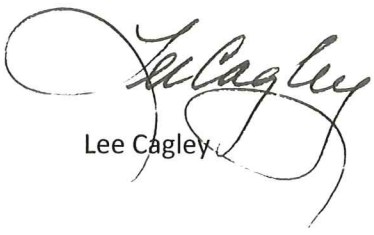
Marwan Ghandour
Associate Dean for Academic Programs
College of Design

November 7, 2011
ArtID Faculty Vote in Support of the Master of Design in Sustainable Environments Degree

Dear Marwan:

This is to notify you that on October 24, 2011, our Interior Design Faculty voted unanimously to support the Master of Design in Sustainable Environments Degree as outlined in the prospectus. We feel the degree has great potential for every discipline in the College of Design, and especially ours. All of our graduate students have expressed both concern and desire to make certain that the future of Interior Design is sustainable, and not just from a public relations standpoint. Several of them are currently engaged in significant research to support this paradigm shift. The possibilities for cross-disciplinary collaboration between the MDesSE program and ours are legion, and on a graduate level the resulting research and/or creative components could be exceptional. We look forward to welcoming this new degree and its students to the College of Design.

Sincerely,



Lee Cagley

IOWA STATE UNIVERSITY

Office of the Dean
College of Design
Ames, Iowa 50011-3091
515 294-7428
FAX 515 294-9755
E-mail isucod@iastate.edu
http://www.design.iastate.edu

Memorandum of Support from Integrated Studio Arts (ISA) Faculty

Date October 24, 2011

To Dean Rico-Gutierrez and Associate Dean Ghandour

From ISA Director, Ingrid Lilligren

Subject Master in Urban Design
Master of Design for Sustainable Environments

At the Friday, October 21 ISA faculty meeting, we discussed and voted on support for these new master's degrees. Our unanimous vote of support recognizes the opportunities these two degrees provide future students to contribute in areas of importance for Iowa and the nation. We are also aware of the changing nature of pedagogy in all our disciplines that opens opportunities for future involvement of faculty and programs not currently engaged.

Within our collegiate environment, these degrees pull together existing faculty and curriculums in a new configuration, creating programs with relevance and immediate application possibilities for our upcoming graduates.

IOWA STATE UNIVERSITY

Office of the Dean
College of Design
Ames, Iowa 50011-3091
515 294-7428
FAX 515 294-9755
E-mail isucod@iastate.edu
http://www.design.iastate.edu

DATE: November 15, 2011

TO: Marwan Ghandour
Associate Dean for Academic Programs
College of Design

FROM: David Ringholz
Director, Industrial Program

The Industrial Design faculty has voted unanimously in favor of the Master of Design for Sustainable Environments. We feel that this would be a complimentary addition to the disciplines in the College and will actively participate in the program's refinement and execution. Since sustainability is such a widely applicable topic, we will all benefit from its inclusion in the College's degree offerings.

IOWA STATE UNIVERSITY

Office of the Dean
College of Design
Ames, Iowa 50011-3091
515 294-7428
FAX 515 294-9755
E-mail isucod@iastate.edu
http://www.design.iastate.edu

DATE: December 1, 2011

TO: Marwan Ghandour
Associate Dean for Academic Affairs
134 College of Design

FROM: Debra Satterfield
Director, Graphic Design
158 College of Design

RE: Master of Design in Sustainable Environments (MDes SE)

The Graphic Design program met on November 11, 2011, and voted unanimously (9 faculty present, 3 excused) to support the College of Design, Master of Design in Sustainable Environments program (MDes SE), a degree with emphasis on sustainable design strategies, systems, and materials for environmental and product design; and ways of envisioning, making and remaking art, landscapes, communities, buildings, and objects of everyday use that conserve resources, ameliorate ecological problems, and promote social, political, and economic justice.

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Architecture
146 College of Design
Ames, Iowa 50011-3039
515 294-4717
515 294-1440 (Fax)

1 December 2011

Marwan Ghandour
Professor and Associate Dean
College of Design
Iowa State University
Ames, Iowa State University

Re: Master of Design in Sustainable Environments

Dear Marwan:

The Department of Architecture is pleased to support the College of Design proposed Master of Design in Sustainable Environments. We believe there is faculty expertise and curricular offerings within architecture and collectively within the College to support the degree. Through interdisciplinary offerings and balanced resource sharing, plus the proposed new position we can offer the degree as part of rich array of environmental design programs.

By a secret ballot vote of 17 in favor and 5 no, the Department of Architecture passed a resolution to affirm its support for the proposed degree.

Best regards,

Gregory Palermo
Professor and Interim Chair
Architecture

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

David J. Oliver
Associate Dean of Research
College of Liberal Arts and Sciences
202 Catt Hall
Iowa State University
Ames, IA 50011
Phone: 515-294-4118
Fax: 515-294-1303

Professor Marwan Ghandour
Associate Dean for Academic Affairs
College of Design
134 Design
Iowa State University
Ames, IA 50011

April 2, 2011

Dear Marwan:

Thank you for taking the time to explain your proposed new graduate programs, the Master of Design in Sustainable Environments program and the Master of Urban Design program. The College of Liberal Arts and Sciences strongly support these unique and innovative new programs. Both graduate programs will provide important opportunities to learn how design principals can be applied to address significant contemporary problems. The LAS College looks forward to working with your faculty in educating these new students.

Personally, I am particularly interested in the Design in Sustainable Environments program. Trying to maintain a high quality of life through a time of diminishing resources and increased competition for those resources will require systems levels approaches to sustainability. Design professionals with training and expertise in environmental sustainability will be essential in incorporating these principals into the architecture, artifacts, and designed environments of the future. Your program is a strong step in this direction and I laud your efforts. I am sure that the LAS faculty would be enthusiastic to work with you in providing an academic underpinning for your students as needed through course work and service on the graduate committees.

Sincerely,

David J. Oliver
Associate Dean for Research and Graduate Studies
College of Liberal Arts and Sciences

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Interoffice Communication

Academic and Global Programs
College of Agriculture and
Life Sciences
134 Curtiss Hall

DATE: April 15, 2011

TO: Marwan Ghandour, Professor
Associate Dean for Academic Programs
College of Design

FROM: David Acker, Associate Dean

SUBJECT: Proposed programs in College of Design

On April 15, 2011, the College of Agriculture and Life Sciences Curriculum Committee reviewed the following new programs proposed by the College of Design:

Bachelor of Design

Master of Urban Design

Master of Design in Sustainable Environments

There was general support for all three programs by the Committee. A representative of the Environmental Sciences major, Professor Bill Crumpton, expressed interest in learning more about how they could collaborate. Additionally, the College of Agriculture and Life Sciences administration concurs with the assessment of our curriculum committee.

CC: Lee Burras, Chair, College Curriculum Committee

IOWA STATE UNIVERSITY

OF SCIENCE AND TECHNOLOGY

College of Engineering
Office of the Dean
104 Marston Hall
Ames, Iowa 50011-2151
Tel 515 294 1309
FAX 515 294 9273

DATE: July 8, 2011

TO: Marwan Ghandour
Associate Dean for Academic Programs
College of Design

FROM: Gary Mirka, Associate Dean
Vernon Schaefer, Chair of Engineering College Curriculum Committee
College of Engineering

SUBJECT: Proposed New Programs in the College of Design

On April 12, 2011, The Engineering College Curriculum Committee reviewed the three proposed programs from the College of Design: **Bachelor of Design**, **Master of Urban Design** and **Master of Design of Sustainable Environments**. There were no objections raised for either of these programs at that time, but the Department of Civil Construction and Environmental Engineering requested additional time to review. On May 25th an email was received that indicated that there had been no objections raised by either the construction engineering curriculum committee or the civil engineering curriculum committee. With no objections raised, the engineering college supports these new programs.

From: Ghandour, Marwan [DSN]
Sent: Monday, March 19, 2012 12:19 PM
To: Hendrich, Suzanne [FSHNH]; Zhu, Dan [SCIS]
Cc: Peters, Frank E [IMSE]
Subject: Re: Academic Affairs Council meeting Mar 21, Wed, 9;9:50 am, 107 LoM

Dan and Suzanne,
Below are the Academic Affairs Council and College votes. Please note that the Academic Affairs Council vote was in January 31, 2011. The collegiate vote was online where it was open from January 31 to February 3, 2011. In Fall 2011, the seven college programs voted individually on the two graduate programs which generated the memos in the pdf file, dated accordingly.

College of Design Academic Affairs Council vote
MDesSE: 5 yes, 5-no; as a tie vote, the chair of the council decided to forward the proposal for a collegiate vote.
MUD: 5 yes, 5-no; as a tie vote, the chair of the council decided to forward the proposal for a collegiate vote.

College faculty vote (112 eligible, 51 voted)
MDesSE: 26 in favor, 23 against, 2 abstained.
MUD: 28 in favor, 23 against, 0 abstained.

Let me know if you need any more information.
Best,
Marwan