

SOUTH DAKOTA BOARD OF REGENTS

Committee on Academic and Student Affairs

AGENDA ITEM: III – A.2 (a)

DATE: October 8-9, 2014

SUBJECT: Intent to Plan: SDSU B.F.A. in Architecture

South Dakota State University (SDSU) requests authorization for a Bachelor of Fine Arts in Architecture. The proposed B.F.A. would replace the existing B.S. in Architectural Studies as part of SDSU’s new Division of Design integrating visual arts, graphic design, landscape architecture, architecture, and interior design. SDSU states the new degree would align the program with professional and accreditation standards within the discipline. SDSU estimates enrolling 40-50 students per year in the program.

University Mission and Priorities

The proposal is within the statutory mission of SDSU as described in SDCL 13-58-1, including providing “undergraduate and graduate programs of instruction in the liberal arts and sciences.” In addition, the “South Dakota State University Mission Statement” in Board Policy 1:10:2 calls for SDSU to provide undergraduate programs in “humanities and liberal arts . . . performing and visual arts . . . [and] physical and biological sciences.”

Related Programs within the System

No related programs exist within the Regental System.

(Continued)

RECOMMENDED ACTION OF THE EXECUTIVE DIRECTOR

Authorize SDSU to develop a proposal for a B.F.A. in Architecture with the following conditions:

1. The university will research existing curricula, consult with experts concerning the curriculum, and provide assurance in the proposal that the program is consistent with current national standards and with the needs of employers.
2. The proposal will define the specific knowledge, skills, and competencies to be acquired through the program, will outline how each will be obtained in the curriculum and will identify the specific measures to be used to determine whether individual students have attained the expected knowledge, skills, and competencies.
3. The university will not request new state resources and the program proposal will identify the sources and amounts of all funds needed to operate the program and the impact of reallocations on existing programs.

System Strategic Goals, State Initiatives, & Workforce Demand

The degree supports System Strategic Goals (Board Policy 1:21), including expanding programs to meet workforce needs, keeping graduates in state, and promoting high standards in student learning. The program also meets objectives in SDSU's Strategic Plan, including increasing the distinction of SDSU and expanding artistic and creative activities. Employment estimates indicate a 17% increase in statewide demand for architects over the next decade.

Off Campus & Distance Delivery

SDSU does not intend to offer the program off campus or online.

Resources

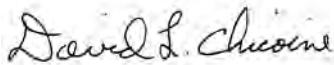
SDSU is not requesting additional resources to support the program.

**South Dakota Board of Regents
Intent to Plan for a Bachelor of Fine Arts in Architecture**

| | |
|---|---|
| UNIVERSITY: | South Dakota State University |
| DEGREE(S) AND TITLE OF PROGRAM: | B.F.A. Bachelor of Fine Arts in Architecture |
| INTENDED DATE OF IMPLEMENTATION: | Fall 2015 |

University Approval

To the Board and the Executive Director: I certify that I have read this intent to plan, that I believe it to be accurate, and that it has been evaluated and approved as provided by university policy.



President of the University

August 26, 2014

Date

After approval by the President, a signed copy of the proposal should be transmitted to the Executive Director. Only after Executive Director review should the proposal be posted on the university web site and the Board staff and the other universities notified of the URL.

1. What is the general nature of the proposed program? What is the expected demand for graduates in South Dakota? What is the need for the proposed program?

South Dakota State University (SDSU) requests authorization to develop a Bachelor of Fine Arts (B.F.A.) degree in Architecture. This B.F.A. meets the professional standards of the National Association of Schools of Art and Design (NASAD) and serves as the pre-professional degree that combines with the National Architectural Accrediting Board (NAAB) and accreditation candidacy professional Master of Architecture Degree offered at SDSU. A professional degree in Architecture is necessary to promote quality programs within the new Division of Design. The B.F.A. in Architecture is one of four proposed B.F.A. degrees (along with one B.L.A. degree) within the Division of Design. The Division of Design is a collaborative structure across three colleges (Arts & Sciences, Agriculture & Biological Sciences and Education & Human Sciences) and includes the five programs. This structure was established to bring together the highly related disciplines of visual arts, graphic design, landscape architecture, architecture and interior design. This interdisciplinary entity forms the foundation for educational programs, collaborative research/scholarly and creative activity and outreach. The proposed degree is in direct response to SDSU's strategic plan, *IMPACT 2018*. In particular, the new degree supports goal 1, enhancing academic excellence through achieving program accreditation and goal 4, increasing efficiencies through academic program alignment. The need for professionally trained architects, architectural designers, and producers is strong and continues to grow. Currently, South Dakota has no stand-alone undergraduate studio-based degree program in architectural design and production. The purposes of this degree are to:

- Meet educational requirements mandated by the profession;

- Equip students with the skill set necessary to transform them into architectural design and production professionals needed to solve crucial design and production issues in South Dakota and the region;
- Enhance the pool of students available to work with faculty in SDSU's proposed Division of Design research initiatives and outreach;
- Provide an expanded selection of elective and support courses for students in the proposed SDSU Division of Design
- Provide the undergraduate pre-professional degree to precede the two year National Architectural Accreditation Board accredited degree offered at SDSU.

General Nature of the Proposed Program

The proposed B.F.A. in Architecture will replace the Bachelor of Science in Architectural Studies. The new degree aligns the pre-professional architectural degree nomenclature with the concomitant allied professional design disciplines in the Division of Design, clarifies the degree as one rooted in studio-based learning, and adjusts the curriculum to share curriculum across disciplines in the Division of Design. The degree will take advantage of current program strengths appropriate to the Land Grant mission and will be a four-year, 120-credit program. These credits will be divided into the following categories:

| | |
|--|-------------|
| • System General Education Requirements | 30 credits |
| • Institutional Graduation Requirements | 5 credits |
| • Division of Design Requirements | 6 credits * |
| • Major Coursework (ARCH Prefix) | 56 credits |
| • Supporting Coursework (MNET/CM Prefix) | 18 credits |
| • Open Electives | 5 credits |

*The Division of Design requires eleven credits; however two of the courses will fulfill five credits of the Institutional Graduation Requirement.

The program prepares students to understand architectural design and production and develop abilities to conceive, produce, and manage projects integrating the elements of design theory, professional practice and design research. Students will incorporate basic research regarding people and contexts in design practice and will develop the skills to solve problems through interdisciplinary collaboration and application of appropriate technologies.

The proposed B.F.A. in Architecture will include 120 credits with studies in the major area; supportive courses in design, related technologies, and the visual arts/design histories and theory normally total at least 65% of the curriculum (NASAD Handbook, 2013–14, page 119 http://nasad.arts-accredit.org/site/docs/Handbook/NASAD_HANDBOOK_2013-14.pdf#page=127).

Pre-professional-plus Master of Architecture; These are awarded by the institution after completing at least 168 semester credit hours...of which at least 30 are taken at the graduate level and require that students have earned a pre-professional architecturally-focused four-year, undergraduate degree prior to admission. (2014 NAAB Conditions for Accreditation, First

Reading, Section II.2.2 page 21

(http://www.naab.org/f/documents/streamfile.aspx?name=First+Reading_2014+NAAB+Conditions_CLEAN.pdf&path=Public+Documents%5cAccreditation%5c2014+Conditions%5c)

Expected Demand for Graduates in South Dakota and the Region

According to the SD Department of Labor (http://dlr.sd.gov/lmic/occupation_projections.aspx), Architects can expect 17.2% and Architectural Managers can expect 7.1% growth rates over the next ten years. Nationwide, the US Bureau of Labor Statistics (<http://www.bls.gov/ooh/architecture-and-engineering/architects.htm> and <http://www.bls.gov/ooh/management/architectural-and-engineering-managers.htm>) anticipates a growth rate of 7% for Architectural Managers and 17% for Architects over the same time period. In addition, allied fields in which architectural design and production professionals often work (digital simulation, construction and building inspection, building materials manufacturing, and product design) anticipate similar or improved growth statistics, forecasting a robust outlook for design professionals in these sectors.

Need for the B.F.A. in Architecture

The need for the new degree is evident through the demand of current practitioners in the profession, interviews with prospective students and their parents, and intake of 15 graduates into SDSU's Master of Architecture candidate NAAB professional degree leading to National Council of Architectural Registration Board certification for licensure as an architect in any state in the nation. Today, students are well informed about their educational options, and know the B.F.A. in Architecture is a professional standard for entry level positions. Iowa State University, the University of Nebraska-Lincoln, and the University of Minnesota are examples of regional universities teaching to meet these demands in this format. Students are increasingly concerned that the tuition spent on their higher education is for a high quality, nationally accredited program/degree in order to meet the entry level expectations of the industry. Some graduates of this degree will seek a professionally accredited Master of Architecture degree in order to attain licensure as an architect. Some are expected to seek positions at the entry level of the industry. Some graduates will pursue graduate level education in the fine arts, material sciences, or construction.

Professionals in South Dakota are strongly in favor of an accredited, professional architectural program at SDSU. In discussion with architects from regional firms there is a perceived need to differentiate between the two degrees so that the public will not confuse the undergraduate four year pre-professional degree with a professional degree, and the B.F.A. in Architecture clarifies that by identifying it as a studio-based professional art degree. External reviewers (NAAB) indicate that SDSU is progressing well towards a successful NAAB accreditation of the Master of Architecture in 2016. In review, they have asked for clarification and adjustments to the coordination of the undergraduate and graduate curricula. Professionals have asked that South Dakota industry leaders stand ready to hire qualified graduates of the proposed program as they become available. These include but are not limited to:

- Public Entities
 - State and local government
 - Public and private universities

- Professional Architectural Firms
 - Koch Hazard Architects (Founding Firm), Sioux Falls
 - TSP Incorporated (Founding Firm), Sioux Falls & Rapid City
 - Perspective (Founding Firm), Sioux Falls
 - Architecture Incorporated (Founding Firm), Sioux Falls & Rapid City
 - Miller Sellers Heroux Architects, Sioux Falls
 - Ciavarella Architecture, Mitchell
 - Fennell Design Inc., Rapid City
 - Upper Deck Architects, Rapid City
 - FourFront Design, Inc, Rapid City

- Corporate Entities
 - Daktronics, Brookings
 - Sanford Health, Sioux Falls

- Construction Firms
 - Sioux Falls Construction
 - LG Everest, Sioux Falls

2. What is the relationship of the proposed program to the University’s mission as provided in South Dakota statute and Board of Regents Policy?

The University’s mission is to “provide undergraduate and graduate programs of instruction in the liberal arts and sciences and professional education in agriculture, education, engineering, home economics, nursing and pharmacy, and other courses or programs as the Board of Regents may determine.” (SDCL 13-58-1)

Furthermore, Board-approved programs currently include “baccalaureate programs in the agricultural sciences, aviation, education, engineering and technology, human sciences, humanities and liberal arts, nursing, performing and visual arts, pharmaceutical sciences, physical and biological sciences, and social sciences.” (Board Policy 1:10:2)

Architecture is a professional program which synthesizes much of the content included in other approved courses. As it is closely related to visual art, graphic design, interior design, landscape architecture, and construction management at SDSU, a Bachelor of Fine Arts in Architecture is clearly within the statutory and Board policy mission for South Dakota State University.

University Priority and Strategic Plan

The proposed B.F.A. in Architecture supports SDSU’s strategic plan. The Strategic Plan *IMPACT 2018* (<http://sdstate.edu/impact2018/>) includes goals that are directly related to this program request, including:

- Cultivate aware, engaged, and active citizens well prepared to work in local, state, national and global communities.
- Foster academic rigor and student success through a comprehensive approach to engaged learning, resulting in complexity of thought, in-depth mastery, and lifelong curiosity.

- Involve students with faculty to expand excellence in scholarship and creative works; prepare students to make intellectual contributions to the global community; and build a highly educated workforce to be tomorrow's leaders.
- Increase regional and national distinction of the University.
- Expand artistic and creative activities to enrich cultural life and lift the human spirit.

This proposed degree will help recruit and retain talented, diverse, and committed faculty and staff. In addition, the proposed degree meets the performance indicators for the University's strategic plan by offering an accredited program in architecture.

The B.F.A. in Architecture further supports the Board of Regents 2014 Priorities:

- Enroll and graduate more citizens
- Attract new residents to South Dakota
- Leverage university-based research and development

Further, the proposed degree supports the system strategic goals (Policy 1:21) and State Initiatives, including:

- *Economic Development and Quality of Life*
 - *Contribute to the workforce development and quality of life by expanding academic programs to meet our future workforce needs*
- *Educational Attainment*
 - *Increase college participation rates*
 - *Keep our graduates in the State*
- *Academic Quality and Performance*
 - *Promote high standards for student learning, quality instruction, and research*
 - *Encourage student involvement in research and service*

3. Are there any related programs in the regental system? If there are related programs, why should the proposed program be added? If there are no related programs within the system, enter "None."

None

4. Are there related programs at public colleges and universities in Minnesota, North Dakota, Montana, and Wyoming?¹ If there are related programs in these states list below under each state and explain why the proposed program is needed in South Dakota. If there are no related programs in a state, enter "None" for that state.

| Minnesota |
|--|
| University of Minnesota Twin Cities, College of Design, School of Architecture, Bachelor of Design in Architecture / Bachelor of Science in Architecture |

¹ This question addresses opportunities available through Minnesota Reciprocity and the Western Undergraduate Exchange in adjacent states. List only programs at the same degree level as the proposed program. For example, if the proposed program is a baccalaureate major, then list only related baccalaureate majors in the other states and do not include associate or graduate programs.

| |
|--|
| Montana (none) |
| Nebraska |
| University of Nebraska, Lincoln, College of Architecture, Division of Architecture Bachelor of Design in Architecture |
| North Dakota |
| North Dakota State University, Department of Architecture and Landscape Architecture, Bachelor of Science in Architecture |
| Wyoming (none) |

SDSU's Architecture program is one part of a larger effort to bring together all design disciplines in order to apply a multi-field, integrative approach to solve complex problems. This occurs when architecture is aligned professionally with the other design disciplines of graphic design, interior design, landscape architecture and visual arts as evidenced by SDSU's land grant peers. A professional degree strengthens SDSU's architecture students so they can fully collaborate with high performing faculty and students in computer science, engineering, agriculture, and economics, as opposed to the current liberal arts degree, which is viewed as an introduction to the discipline.

As part of the land grant mission, architecture has a significant role to play in extension by bringing design expertise and problem solving to the communities and citizens of South Dakota. The new architecture degree will accomplish this through:

- Delivering concentrated offerings in architectural theory, practice, construction systems, building information technology, and design research.
- Conducting engaged research and practice focused on building affordable communities.
- Leveraging the expertise and experience of high performing faculty and students to pursue innovation and economic development.
- Expanding the reach of the university nationally.

5. Are students expected to be new to the university or redirected from other programs? How many majors are expected in the first years of the program? How many graduates are expected?

It is anticipated that the majority of students in the program will be new to the University. SDSU does not expect that many students from its existing undergraduate programs will be redirected to the program. However, the existing program enjoys enrollment from some students who self-select from related fields; this tendency is expected to continue to some degree, but students will not be actively recruited away from other programs at SDSU.

Anticipated program enrollments of 40-50 new students per year with 25-30 matriculating to finish. The projection is based on the number of students currently in the BS program. It is expected that students will require a full four years to graduate, depending on their background and commitment to the program. Students would be recruited from among high school graduates throughout the region, in collaboration with other design programs at SDSU.

6. Does the university intend to seek authorization to deliver this entire program at any

off-campus locations? *If yes, enter location(s) and intended start date(s).* **Does the university intend to seek authorization to deliver this entire program by distance technology?** *If yes, identify delivery method(s) and intended start date(s).*

| | |
|-------------------|----|
| Off-campus | No |
| Distance delivery | No |

7. What are the University's plans for obtaining the resources needed to implement the program? Indicate "yes" or "no" in the columns below.

| | Development/Start-up | Long-term Operation |
|---|----------------------|---------------------|
| Reallocate existing resources | Yes | Yes |
| Apply for external resources | No | No |
| Ask Board to seek new State resources | No | No |
| Ask Board to approve new or increased student fee | No | No |

SDSU faculty and administration will cover the needs of the program through internal staff and fiscal re-allocation. The program will be developed to leverage existing faculty and course offerings. SDSU currently has six faculty members with expertise in architecture, a sufficient number to meet national accreditation standards.

8. Curriculum Example: Provide (as Appendix A) the curriculum of a similar program at another college or university. *The Appendix should provide the required and elective courses in the program. Catalog pages or web materials may be used.* **Identify the college or university and explain why the program may be used as one model when the proposed program is developed.**

The curriculum for the Bachelor of Design in Architecture at the University of Nebraska in Lincoln (Appendix A) and the curriculum for the Bachelor of Fine Arts in Architecture at the University of Massachusetts in Amherst (Appendix B) were selected because they are excellent national models of rigorous plans of study that include design theory, design practice, and design research both fulfilling the land grant mission for their respective state. The required courses SDSU plans to offer will be similar to those provided by these programs. Both programs are similar to SDSU in the number of credits required.

Appendix A

Curriculum Example: The University of Massachusetts at Amherst
Additional information regarding the Bachelor of Fine Arts in Architecture program at The University of Massachusetts at Amherst may be found at:

<http://www.umass.edu/architecture/content/bachelor-fine-arts-architecture>

Degree Requirements

B.F.A. Architecture is an interdisciplinary major that integrates architecture and design. The program (housed in the Department of Art, Architecture, and Art History) has an interdepartmental curriculum including coursework in studio arts, art history, environmental design, landscape architecture and regional planning, engineering, and building materials. This degree provides students broad exposure to aspects of building and material science as well as a variety of cultural, environmental, and historical perspectives, preparing them to make innovative and integrated contributions as architects and designers.

Concentrations

There are two concentrations: Architecture Studies and Design Studies. The Architecture Studies concentration is intended for students who plan to pursue a professional graduate degree in architecture. It requires more courses in architecture studios, architectural history, and technology, and more directed electives related to design. The Design Studies concentration is intended for students with a broader interest in the design fields, including interior design. It has more flexibility in requirements for studio, history, technology, and directed electives related to design. Because it has fewer requirements, it will also allow students to double major.

Requirements

The Architecture major will require the following **core courses** applicable to every student (courses carry the ARCH-DES designation unless otherwise noted):

- Math/Physics: 3 courses
 - MATH 104 Algebra/Analytic Geometry/Trigonometry
 - MATH 127 Calculus for Life & Social Sciences I
 - PHYS 131/133 Physics I plus Lab
- Foundations: Choose 4 courses
 - ART 110 Basic Studio/Drawing
 - ART 120 Drawing Composition
 - ART 131 Two Dimensional Design I
 - ART 142 Three Dimensional Design I
 - Other 100 and 200 level studios approved by the Program
- Design/Graphics: 4 courses
 - 300 Design I (4 cr)
 - 301 Design II (4 cr)
 - 540 Analysis and Representation I
 - 541 Analysis and Representation II
- History/Theory: 3 courses
 - One survey course (ART-HIST 100, 110, or 115)
 - ART-HIST 118 History of Architecture and the Built Environment
 - 370 Junior Year Writing

The **Architectural Studies concentration** will require the following additional courses:

- Design/Graphics: 3 courses
 - 400 Design III (4 cr)

- 401 Design IV (4 cr)
- 403 Design V (5 cr) –or— 404 Design VI (6 cr)
- History/Theory: 2 courses
 - ART-HIST 343 20th Century Architecture
 - Additional architecture history course approved by the adviser
- Technology: 2 courses
 - BCT 211 Energy Efficient Housing
 - BCT 313 Principles of Light Frame Structure Technology
- Directed electives: minimum 9 credits
 - Courses in architecture related fields developed in consultation with and approved by the faculty adviser.

The **Design Studies concentration** will require the following additional courses:

- Design/Graphics: 1 course
 - Design or art studio approved by the adviser
- History/Theory: 1 course
 - Design history course approved by the adviser
- Technology: 1 course from the following list
 - BCT 211 Energy Efficient Housing
 - BCT 313 Principles of Light Frame Structure Technology
 - 510 Furniture Design and Technology
- Directed Electives: minimum 9 credits
 - Courses in design related fields developed in consultation with and approved by the faculty adviser.

Other Requirements of the Major

- Grades: Majors must earn a cumulative GP of 2.00 or better in all courses required for the major.
- Computers: Students are required to provide their own laptop computers and software, to specifications provided by Program, for all ARCH-DES design and graphics classes.

Appendix B

Curriculum Example: University of Nebraska - Lincoln

Additional information regarding the Bachelor of Science in Design - Architecture program at the University of Nebraska – Lincoln may be found at: <http://architecture.unl.edu/programs/arch/>

Degree Requirements

Bachelor of Science in Design in Architecture - 120 credits

Second Year, First Semester

ARCH 241 - Modern History - 3 cr hrs
 ARCH 210 - Studio I - 5 cr hrs
 ARCH 2xx - Structural Fundamentals - 3 cr hrs
 PHYS 151 - Physics - 4 cr hrs (ACE 4)
 Total 15 cr hrs

Second Year, Second Semester

ARCH 2xx - Building Organization - 3 cr hrs
 ARCH 211 - Studio II - 5 cr hrs
 ARCH 2xx - Material Assemblies - 3 cr hrs
 ARCH 2xx - Technique - BIM - 1 cr hr
 ARCH 2xx - Technique - Elective - 1 cr hr
 Elective - ACE 6, 8 or 9 - 3 cr hrs
 Total 16 cr hrs

Third Year, First Semester

ARCH 3xx - Classical History - 3 cr hrs (ACE 5 or 7)
 ARCH 310 - Studio III - 5 cr hrs (ACE 10)
 ARCH 3xx - Structural Mechanics - 3 cr hrs
 Elective - ACE 6, 8 or 9 - 3 cr hrs
 Open Elective - 3 cr hrs
 Total 17 cr hrs

Third Year, Second Semester

ARCH 360 - Site - 3 cr hrs
 ARCH 311 - Studio IV - 5 cr hrs (ACE 10)
 ARCH 3xx - Structural Optimization - 3 cr hrs
 Open Elective - 3 cr hrs
 Total 14 cr hrs

Fourth Year, First Semester

ARCH 461 - Urbanism - 3 cr hrs
 ARCH 410 - Studio V - 5 cr hrs (ACE 10)
 ARCH 333 - Environmental Systems - 3 cr hrs
 Open Elective - 3 cr hrs
 Total 14 cr hrs

Fourth Year, Second Semester

ARCH 341 - Theory - 3 cr hrs
 ARCH 411 - Studio VI - 5 cr hrs (ACE 10)
 ARCH 430 - Building Integration - 3 cr hrs
 Open Elective - 3 cr hrs
 Total 14 cr