|  |  |
| --- | --- |
|  |  |
| S:\Communications\Logos and photos\SDBORLogos\final_sdbor_webreadyBW_trans.gif | **SOUTH DAKOTA BOARD OF REGENTS**  ACADEMIC AFFAIRS FORMS |
| New Undergraduate Degree Program |
|  |  |

Use this form to propose a new undergraduate degree program. An undergraduate degree program includes a new major, a new degree, or both. The Board of Regents, Executive Director, and/or their designees may request additional information about the proposal. After the university President approves the proposal, submit a signed copy to the Executive Director through the system Chief Academic Officer. Only post the New Undergraduate Degree Program Form to the university website for review by other universities after approval by the Executive Director and Chief Academic Officer.

|  |  |
| --- | --- |
| **UNIVERSITY:** | DSU |
| **MAJOR:** | **Artificial Intelligence** |
| **EXISTING OR NEW MAJOR(S):** | **New** |
| **DEGREE:** | **B.S. in Artificial Intelligence** |
| **EXISTING OR NEW DEGREE(S):** | **New** |
| **INTENDED DATE OF IMPLEMENTATION:** | **Fall 2021** |
| **PROPOSED CIP CODE:** | **11.0102** |
| **SPECIALIZATIONS:[[1]](#footnote-1)** |  |
| **IS A SPECIALIZATION REQUIRED (Y/N):** | No |
| **DATE OF INTENT TO PLAN APPROVAL:** | **12/9/2020** |
| **UNIVERSITY DEPARTMENT:** | **The Beacom College of Computer and Cyber Sciences** |
| **UNIVERSITY DIVISION:** | **DCYOP** |

**University Approval**

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

|  |  |  |
| --- | --- | --- |
|  |  | 1/20/2021 |
| President of the University |  | Date |

|  |
| --- |
|  |

1. **What is the nature/purpose of the proposed program?**

The purpose of this program is to provide students with the education and training needed to be successful in the many existing and emerging technical fields involving artificial intelligence. (AI) uses data and computational models to make decisions and predictions. These decisions/predictions range from determining the best route for delivery trucks, predicting the probability of lung cancer from looking at chest x-rays, classifying weeds in video as tractors drive through fields, giving inventory predictions for businesses, creating autonomous agents in games and movies that act realistically, or telling a self-driving car to slow down as it approaches a crosswalk. The proposed program will prepare undergraduate students to apply well researched and documented AI algorithms and methodologies to various fields and applications like those just mentioned.

The field of artificial intelligence is a relatively broad field that includes elements of computer science, data science, and cognitive reasoning. In recent years, applying AI in multiple fields; including agriculture, medical research, operations management, and countless others has become attainable to software engineers and data scientists through the use of programming libraries and other tools. As such, applicable AI has reached undergraduate studies, and is no longer restricted purely to theoretical graduate research.

As the public’s exposure to applied AI grows, concern with the control and tasks AI is applied to also grows. Also, the concern of automated machines and software taking human jobs is also an important topic of discussion. A report from the World Economic Forum (WEF) predicts that AI will displace 75 million jobs by 2022. Fortunately, it also predicts that AI will create 133 million new roles by 2022 [1]. It is vital that as the skill sets required by graduates in the modern economy change, we must train students to not only keep up, but to stay ahead and take the lead of that change.

As such, in order for this proposed program to aid in that goal, we are including elements of ethics, societal impacts, cognitive logic, data management & analysis, and computer science. This will prepare students to successfully utilize AI in an ethical manner to all kinds of applications.

[1]http://reports.weforum.org/future-of-jobs-2018/?doing\_wp\_cron=1596291222.6228919029235839843750

1. **How does the proposed program relate to the university’s mission and strategic plan, and to the current Board of Regents Strategic Plan 2014-2020?**[[2]](#footnote-2)

Under SDCL 13-59, the primary purpose of Dakota State University at Madison in Lake County is to provide instruction in computer management, computer information systems, electronic data processing, and other related undergraduate and graduate programs. The field of artificial intelligence falls directly into this description.

Dakota State University’s mission statement goes on to empower people with STEM-based education, preparing them for compelling, creative, and lasting careers. As listed in item (2) above, the field of artificial intelligence is one of the fastest growing fields, not only related to technology, but in relation to all known fields. The proposed program would not only train students directly in the application of known technologies, but also set them up for advanced research in the advanced degree programs. Students who do not necessarily wish to join the degree directly can also benefit by taking courses to increase their literacy in artificial intelligence and STEM as AI continues to affirm its place in the daily life of average citizens.

1. **Describe the workforce demand for graduates of the program, including national demand and demand within South Dakota.** *Provide data and examples; data sources may include but are not limited to the South Dakota Department of Labor, the US Bureau of Labor Statistics, Regental system dashboards, etc.*

In February of 2019, the White House released Executive Order 13859 announcing the American Artificial Intelligence Initiative [1]. Entailed in this document is a national strategy for promoting U.S. leadership in AI, where one of the key policies and practices included training an AI-ready workforce.

Regarding specific careers, job titles include (but aren’t limited to): Machine Learning Engineer, Data Analyst, Data Scientist, AI/ML Researcher, and Software Engineer. These jobs provide different roles to help firms make scientific or data-driven decisions or automate tasks to reduce costs or scale products, create physical automated bots for a myriad of purposes, or provide research into new applications. These services pertain to nearly all industries. Consolidating all artificial intelligence related jobs, there has been a steady increase in job-posting, while responses have slightly shrunk; indicating an increased demand while the current workforce is decreasing, leaving a gap to fill. AI job postings on the job posting website Indeed saw its largest increase spike from 2016 to 2017 by 136.3%. In the following years, the spike leveled off, but the percentage of job postings continued to rise by 49.1% and 32% from the previous year in 2018 and 2019 respectively; making machine learning and deep learning engineers the most popular jobs posted that year. An incredible overall increase in the last few years. In contrast, the number of job searches only increased by 14% in the last year mentioned; leaving a large gap to fill.

According to Udemy, a global marketplace for learning and instruction, the deep learning tool Tensorflow was the most popular tech skill of the last three years [3].

Pay for these jobs is also fairly high, with averages ranging from $97,850 for AI software engineers to $134,449 for machine learning engineers. [2]

In regard to South Dakota, the biggest player in the economy is agriculture. Research and deployment of AI software and robotics will be a key component to increasing crop and livestock production, as well as operational throughput. Also, AI is used in many areas of medical research, which ties into Sanford and Avera hospitals in the region.

It’s important to note that many new jobs created for degrees such as this are new enough such that they are not listed on the South Dakota Department of Labor’s (SDoL) website or the U.S. Bureau of Labor Statistics (BLS). These types of positions include Machine Learning Engineers, Data Scientists, and Applied AI Specialists mentioned earlier from the Indeed resource

The following tables include positions that could potentially be filled by graduates with this degree. The first table represents the short-term growth projections from 2019 to 2021 by the SDoL [4].

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  | Average Annual Openings | | | |
| SOC Code | SOC Title | 2019 Employment | 2021 Employment | Numeric Change | Percent Change | Due to Exits | Due to Transfer | Annual Change | Total Opening |
| 15-11-21 | Computer Systems Analyst | 817 | 849 | 32 | 3.9% | 16 | 44 | 16 | 76 |
| 15-1132 | Software Developers, Applications | 1,072 | 1,145 | 73 | 6.8% | 16 | 62 | 36 | 114 |
| 15-1134 | Web Developer | 478 | 500 | 22 | 4.6% | 8 | 29 | 11 | 48 |
| 13-1081 | Logisticians | 141 | 143 | 2 | 1.4% | 4 | 10 | 1 | 15 |
| 13-1111 | Management Analysts | 3,503 | 3,650 | 147 | 4.2% | 111 | 226 | 74 | 411 |
| 13-1161 | Market Research Analyst | 1,013 | 1,074 | 61 | 6.0% | 24 | 82 | 30 | 136 |
| 13-2031 | Budget Analysts | 131 | 132 | 1 | 0.8% | 3 | 7 | 0 | 10 |
| 13-2041 | Credit Analysts | 368 | 374 | 6 | 1.6% | 8 | 25 | 3 | 36 |
| 13-2051 | Financial Analysts | 478 | 492 | 14 | 2.9% | 10 | 32 | 7 | 49 |

The numbers in this second table represent the statewide occupational projections from 2018 to 2028 [5].

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  | Average Annual Openings | | | |
| SOC Code | SOC Title | 2018 Employment | 2028 Employment | Numeric Change | Percent Change | Due to Exits | Due to Transfer | Annual Change | Total Opening |
| 15-1121 | Computer Systems Analysts | 803 | 897 | 94 | 11.7% | 16 | 45 | 9 | 70 |
| 15-1132 | Software Developers, Applications | 1,041 | 1,300 | 259 | 24.9% | 16 | 66 | 26 | 108 |
| 15-1134 | Web Developer | 460 | 523 | 63 | 13.7% | 8 | 29 | 6 | 43 |
| 13-1081 | Logisticians | 136 | 150 | 14 | 10.3% | 3 | 10 | 1 | 14 |
| 13-1111 | Management Analysts | 3,334 | 3,762 | 428 | 12.8% | 110 | 224 | 43 | 377 |
| 13-1161 | Market Research Analyst | 993 | 1,200 | 207 | 20.9% | 26 | 86 | 21 | 133 |
| 13-2031 | Budget Analysts | 131 | 138 | 7 | 5.3% | 3 | 7 | 1 | 11 |
| 13-2041 | Credit Analysts | 374 | 415 | 41 | 11.0% | 9 | 27 | 4 | 40 |
| 13-2051 | Financial Analysts | 469 | 522 | 53 | 11.3% | 10 | 32 | 5 | 47 |

On a national level, the long-term job increases include [6]:

\*Employment in thousands.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SOC Code | SOC Title | 2018 Employment | 2028 Employment | Numeric Change | Percent Change | Occupational Openings, Annual Average |
| 15-1121 | Computer Systems Analysts | 633.9 | 689.9 | 56.0 | 8.8% | 53.4 |
| 15-1132 | Software Developers, Applications | 944.2 | 1,185.7 | 241.5 | 26.6% | 99.2 |
| 15-1134 | Web Developer | 160.5 | 181.4 | 20.9 | 13.0% | 15.1 |
| 13-1081 | Logisticians | 174.9 | 183.3 | 8.4 | 4.8% | 17.9 |
| 13-1111 | Management Analysts | 876.3 | 994.6 | 118.3 | 13.5% | 99.9 |
| 13-1161 | Market Research Analyst | 681.9 | 821.1 | 139.2 | 20.4% | 90.7 |
| 13-2031 | Budget Analysts | 56.9 | 59.4 | 2.4 | 4.2% | 4.8 |
| 13-2041 | Credit Analysts | 75.8 | 79.5 | 3.7 | 4.9% | 7.4 |
| 13-2051 | Financial Analysts | 329.5 | 349.8 | 20.3 | 6.2% | 30.9 |
| 43-9111 | Statistical Assistants | 13.1 | 14.1 | 1.1 | 8.0% | 1.8 |

Footnotes:

[1] <https://www.hsdl.org/?abstract&did=821398>

[2] <https://www.indeed.com/lead/top-10-ai-jobs-salaries-cities>

[3] <https://business.udemy.com/resources/5-workplace-learning-trends-2020/>

[4]<https://dlr.sd.gov/lmic/documents/short_term_occupational_projections_statewide_2019_2021.pdf>

[5]<https://dlr.sd.gov/lmic/documents/occupational_projections_2018_2028_statewide_south_dakota.pdf>

[6] <https://data.bls.gov/projections/occupationProj>

1. **How will the proposed program benefit students?**

As stated in part (2), AI is an integral part of society and the economy at any scale. This program will help prepare students for the new wave of jobs that require formal training in AI. The objectives aim to provide students with both technical skills and design expertise. Students will 1) understand the technical depth and breadth of artificial intelligence, 2) explore opportunities to apply AI enabled technologies in real-world applications currently in use, 3) master design and deployment of AI in information and communications technology, 4) lead teams in designing and developing new AI technologies and products, and 5) become equipped with clear and persuasive communication skills necessary in a variety of AI careers.

The program will help students meet their career goals by providing comprehensive hands-on tasks to develop the skill set needed by industry professionals. As the possible applications of AI continue to increase, so too does the positive career potential for those with these skills needed to thrive in this industry. The program aims to provide a curriculum to enable graduating students to become data scientists, machine learning engineers, software engineers, computer scientists and AI researchers; along with other top careers that define today’s AI industry.

That isn’t to say that the program can’t help non-major students as well. Literacy and comprehension of technology and AI will be required by a multitude of fields and careers not directly associated with AI development. Beyond career goals, the societal impacts of AI literacy are integral to the well-being of the overall population. It will enable people to express and understand different ideas and opinions, make decisions and solve problems, achieve goals, and participate fully in their community. AI literacy will also help eradicate the misconceptions around AI to create an all-inclusive ecosystem where all members of the community are equipped with the basic skills needed to pursue further learning and better adapt to a changing world where AI will be prevalent.

1. **Program Proposal Rationale:**
   1. **If a new degree is proposed, what is the rationale?[[3]](#footnote-3)**

DSU has authorization to offer Bachelor of Science degrees, and therefore, a new degree is not proposed.

* 1. **What is the rationale for the curriculum?**

Artificial Intelligence is typically thought of as a subtopic of computer science. In recent years, the field of AI has seen a surge in popularity and in the job market. The area is diverse enough that a computer science degree alone is not sufficient to cover its depth. This curriculum is based off the B.S. in Artificial Intelligence degree from Carnegie Mellon University. The degree requires courses in multiple support areas, including Computer Science, Math and Statistics, Logic and Reasoning; along with the core AI courses.

In regard to the supporting courses, computer science courses teach programming and algorithms, math and statistics are the foundation to many machine learning and AI algorithms, and logic and reasoning provide a cognitive understanding of what intelligence truly is and how it can be applied.

Besides the AI core and supporting courses, students are required to pursue a minor in another program. This follows the idea of “*AI for all*” and allows students to pursue applying it in their field of choice.

* 1. **Demonstrate/provide evidence that the curriculum is consistent with current national standards.** *Complete the tables below and explain any unusual aspects of the proposed curriculum?*

While there are no national standards for an AI undergraduate degree, we are modeling our program after the program mentioned in the intent to plan documents, Carnegie Mellon University B.S. in AI program.

* 1. **Summary of the degree program (complete the following tables):**

|  |  |  |  |
| --- | --- | --- | --- |
| **B.S. in Artificial Intelligence** | **Credit Hours** | **Credit Hours** | **Percent** |
| System General Education Requirements | 30 |  |  |
| Subtotal, Degree Requirements |  | 30 | 25% |
| Required Support Math Courses | 13 |  |  |
| Major Requirements | 45 |  |  |
| Major Electives | 0 |  |  |
| Required Minor | 18 |  |  |
| Subtotal, Program Requirements |  | 76 | 63% |
| Free Electives |  | 14 | 12% |
| Degree Total[[4]](#footnote-4) |  | 120 | 100% |

**Note – required as part of General Education**

*(Not general education or institutional graduation requirements)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Prefix** | **Number** | **Course Title**  *(add or delete rows as needed)* | **Credit Hours** | **New**  **(yes, no)** |
| PSYC | 101 | General Psychology | 3 | No |
| SOC | 285 | Society and Technology | 3 | No |
| PHIL | 200 | Introduction to Logic | 3 | No |
|  |  | Subtotal | 9 |  |

**Required Support Courses Outside the Major**

*(Not general education or institutional graduation requirements)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Prefix** | **Number** | **Course Title** | **Credit Hours** | **New**  **(yes, no)** |
| MATH | 123 | Calculus I | 4 | No |
| MATH | 201 | Introduction to Discrete Mathematics | 3 | No |
|  |  |  |  |  |
| MATH | 281 | Introduction to Statistics | 3 | No |
|  | or |  |  |  |
| MATH | 381 | Introduction to Probability and Statistics |  | No |
|  |  |  |  |  |
| MATH | 315 | Linear Algebra | 3 | No |
|  |  | Subtotal | 13 |  |

**Major Requirements**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Prefix** | **Number** | **Course Title**  *(add or delete rows as needed)* | **Credit Hours** | **New**  **(yes, no)** |
| CSC | 105 | Introduction to Computers | 3 | No |
| CSC | 150 | Computer Science I | 3 | No |
| CSC | 247 | Introduction to Artificial Intelligence | 3 | Yes |
| CSC | 250 | Computer Science II | 3 | No |
| CSC | 300 | Data Structures | 3 | No |
| CSC | 386 | Machine Learning Fundamentals | 3 | No |
| CSC | 402 | Mathematical Foundations for Artificial Intelligence | 3 | No |
| CSC | 410 | Parallel Computing | 3 | No |
| CSC | 447 | Artificial Intelligence | 3 | No |
| CSC | 460 | Scientific Visualization | 3 | No |
| CSC | 478 | Generative Deep Learning | 3 | No |
| CSC | 479 | Reinforcement Learning | 3 | No |
| CSC | 482 | Algorithms and Optimization | 3 | No |
| CIS | 368 | Predictive Analytics | 3 | No |
| CIS | 372 | Programming for Analytics | 3 | No |
|  |  | Subtotal | 45 |  |

**Major Electives:** **List courses available as electives in the program. Indicate any proposed new courses added specifically for the major.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Prefix** | **Number** | **Course Title**  *(add or delete rows as needed)* | **Credit Hours** | **New**  **(yes, no)** |
|  |  | None |  | Choose an item. |
|  |  |  |  | Choose an item. |
|  |  | Subtotal |  |  |

Students in this major will require a minor.  DSU currently has minors ranging from Biology, English, and Math to the more technology-specific areas such as Cyber Operations, High-Performance Computing, Mobile Application Development and Networking Security Administration.  Any one of these minors would fit into this degree and increase the student’s employment opportunities.

1. **Student Outcomes and Demonstration of Individual Achievement**
   1. **What specific knowledge and competencies, including technology competencies, will all students demonstrate before graduation**? *The knowledge and competencies should be specific to the program and not routinely expected of all university graduates.* **Complete Appendix A – Outcomes using the system form.** *Outcomes discussed below should be the same as those in Appendix A. The knowledge and competencies specific to the program must relate to the proposed assessments in B and C below.*

Students will be expected to show knowledge and competencies in the following areas: programming, mathematics & statistics, and cognitive logic, and AI algorithms. The table below lists the expected learning outcomes and shows courses that meet these requirements.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Individual Student Outcomes | Program Courses that Address the Outcomes | | | | | | | | | | | | | | |
| Individual Student Outcome (Same as in the text of the proposal) | CSC 105/ 150/  250 | CSC 247 | CSC 300 | CSC 447 | CSC 386 | CSC 402 | CSC 410 | CSC 460 | CSC 478/479 | CSC 482 | MATH 123/ MATH 201 | MATH  281/  315/ 381 | PHIL 200/ PSYC 101/ SOC 285 | CIS 368 | CIS 372 |
| Recognize a range of AI subgenres and algorithms. |  | X |  | X | X |  |  |  | X |  |  |  |  | X |  |
| Perform data analysis on varying datasets. |  |  |  |  |  |  |  | X |  |  |  |  |  | X | X |
| Evaluate the correctness of analysis or algorithm application by others in practice or literature. |  |  |  |  | X | X |  |  | X | X |  |  |  | X |  |
| Design/Create software that utilize well known AI algorithms. |  |  |  |  | X |  | X |  | X | X |  |  |  |  | X |
| Identify when it is appropriate to use different AI algorithms for different problems. |  | X |  | X | X |  |  |  | X |  |  |  |  | X |  |
| Demonstrate Programming Proficiency | X |  | X |  |  |  | X |  |  |  |  |  |  |  | X |
| Demonstrate Mathematical and Statistical Proficiency |  |  |  |  |  | X |  |  |  |  | X | X |  | X |  |
| Demonstrate Understanding of Cognitive Logic |  | X |  |  |  |  |  |  |  |  |  |  | X |  |  |
| Evaluate the ethical implications and effects of applied AI |  | X |  |  |  |  |  |  |  |  |  |  | X |  |  |

* 1. **Are national instruments (i.e., examinations) available to measure individual student achievement in this field? If so, list them.**

No

* 1. **How will individual students demonstrate mastery?** **Describe the specific examinations and/or processes used, including any external measures.[[5]](#footnote-5)** **What are the consequences for students who do not demonstrate mastery?**

Students will be required to complete an exit exam during their last semester before graduation, in a similar fashion as other Beacom College bachelor programs.

1. **What instructional approaches and technologies will instructors use to teach courses in the program?** *This refers to the instructional technologies and approaches used to teach courses and NOT the technology applications and approaches expected of students.*

Instructors will projectors to display notes, slides, and other materials from their computers to the students. Classes taught online will have videos that stream synchronously or be recorded for later playback.

1. **Did the University engage any developmental consultants to assist with the development of the curriculum?[[6]](#footnote-6) Did the University consult any professional or accrediting associations during the development of the curriculum? What were the contributions of the consultants and associations to the development of curriculum?**

No

1. **Are students enrolling in the program expected to be new to the university or redirected from other existing programs at the university? Complete the table below and explain the methodology used in developing the estimates (*replace “XX” in the table with the appropriate year*).** *If question 12 includes a request for authorization for off-campus or distance delivery, add lines to the table for off-campus/distance students, credit hours, and graduates.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Fiscal Years**\* | | | |
|  | **1st** | **2nd** | **3rd** | **4th** |
| ***Estimates*** | FY 21 | FY 22 | FY 23 | FY 24 |
| Students new to the university | 15 | 15 | 15 | 15 |
| Students from other university programs | 5 | 5 | 5 | 5 |
| Students off-campus or distance | 10 | 20 | 30 | 40 |
| Continuing students | 0 | 20 | 40 | 60 |
| =Total students in the program (fall) | 20 | 40 | 60 | 80 |
|  |  |  |  |  |
| Program credit hours (major courses)\*\* | 200 | 560 | 920 | 1460 |
| Graduates | 0 | 0 | 0 | 20 |

\*Do not include current fiscal year.

\*\*This is the total number of credit hours generated by students in the program in the required or elective program courses. Use the same numbers in Appendix B – Budget.

These estimates come from analyzing the growth of similar degrees, such as Cyber Operations., and applying a conservative bias. We are anticipating half of the students to be off-campus or distance.

1. **Is program accreditation available? If so, identify the accrediting organization and explain whether accreditation is required or optional, the resources required, and the University’s plans concerning the accreditation of this program.**

No

1. **Does the University request any exceptions to any Board policy for this program? Explain any requests for exceptions to Board Policy.** *If not requesting any exceptions, enter “None.”*

No

1. **Delivery Location[[7]](#footnote-7)**
2. **Complete the following charts to indicate if the university seeks authorization to deliver the entire program on campus, at any off campus location (e.g., UC Sioux Falls, Capital University Center, Black Hills State University-Rapid City, etc.) or deliver the entire program through distance technology (e.g., as an online program)?**

|  |  |  |
| --- | --- | --- |
|  | **Yes/No** | ***Intended Start Date*** |
| **On campus** | Yes | **Fall 2021** |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Yes/No** | ***If Yes, list location(s)*** | ***Intended Start Date*** |
| **Off campus** | No |  | Choose an item.Choose an item. |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Yes/No** | ***If Yes, identify delivery methods[[8]](#footnote-8)*** | ***Intended Start Date*** |
| **Distance Delivery (online/other distance delivery methods)** | Yes | Online | **Fall 2021** |

1. **Complete the following chart to indicate if the university seeks authorization to deliver more than 50% but less than 100% of the certificate through distance learning (e.g., as an online program)? [[9]](#footnote-9)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Yes/No** | ***If Yes, identify delivery methods*** | ***Intended Start Date*** |
| **Distance Delivery (online/other distance delivery methods)** | Choose an item. |  | Choose an item.Choose an item. |

1. **Cost, Budget, and Resources: Explain the amount and source(s) of any one-time and continuing investments in personnel, professional development, release time, time redirected from other assignments, instructional technology & software, other operations and maintenance, facilities, etc., needed to implement the proposed major. Address off-campus or distance delivery separately.** *Complete Appendix B – Budget and briefly summarize to support Board staff analysis.*

No new resources are requested at this time.

1. **Is the university requesting or intending to request permission for a new fee or to attach an existing fee to the program (*place an “X” in the appropriate box*)?** *If yes, explain.*

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Yes |  | No |

*Explanation (if applicable):*

1. **New Course Approval: New courses required to implement the new undergraduate degree program may receive approval in conjunction with program approval or receive approval separately. Please check the appropriate statement:**

|  |  |
| --- | --- |
|  | YES, CSC 247 Introduction to Artificial Intelligence (3 credits) |

*the university is seeking approval of new courses related to the proposed program in conjunction with program approval. All New Course Request forms are included as Appendix C and match those described in section 5D.*

|  |  |
| --- | --- |
|  | NO, |

*the university is not seeking approval of all new courses related to the proposed program in conjunction with program approval; the institution will submit new course approval requests separately or at a later date in accordance with Academic Affairs Guidelines.*

1. If the proposed new program includes specific specializations within it, complete and submit a New Specialization Form for each proposed specialization and attach it to this form. Since specializations appear on transcripts, they require Board of Regents approval. [↑](#footnote-ref-1)
2. South Dakota statutes regarding university mission are located in SDCL 13-57 through 13-60; Board of Regents policies regarding university mission are located in Board Policies 1:10:1 through 1:10:6. The Strategic Plan 2014-2020 is available from <https://www.sdbor.edu/the-board/agendaitems/Documents/2014/October/16_BOR1014.pdf>. [↑](#footnote-ref-2)
3. This question refers to the type of degree, not the program. For example, if your university has authorization to offer the Bachelor of Science and the program requested is a Bachelor of Science, then the request is not for a new degree. [↑](#footnote-ref-3)
4. Board Policy 2:29 requires each baccalaureate level degree program to require 120 credit hours and each associate degree program to require 60 credit hours. Exceptions to this policy require documentation that programs must comply with specific standards established by external accreditation, licensure, or regulatory bodies or for other compelling reasons and must receive approval by the Executive Director in consultation the President of the Board of Regents. [↑](#footnote-ref-4)
5. What national examination, externally evaluated portfolio or student activity, etc., will verify that individuals have attained a high level of competence and identify those who need additional work? [↑](#footnote-ref-5)
6. Developmental consultants are experts in the discipline hired by the university to assist with the development of a new program (content, courses, experiences, etc.). Universities are encouraged to discuss the selection of developmental consultants with Board staff. [↑](#footnote-ref-6)
7. The accreditation requirements of the Higher Learning Commission (HLC) require Board approval for a university to offer programs off-campus and through distance delivery. [↑](#footnote-ref-7)
8. Delivery methods are defined in [AAC Guideline 5.5](https://www.sdbor.edu/administrative-offices/academics/academic-affairs-guidelines/Documents/5_Guidelines/5_5_Guideline.pdf). [↑](#footnote-ref-8)
9. This question responds to HLC definitions for distance delivery. [↑](#footnote-ref-9)