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|  | **SOUTH DAKOTA BOARD OF REGENTS**  ACADEMIC AFFAIRS FORMS |
| Minor Program Modification |
|  |  |

Use this form to request minor changes in existing programs (majors, minors, certificates, or specializations). The university Vice President for Academic Affairs approves minor program modifications and they are included in the Annual Minor Program Modification Summary form.

|  |  |
| --- | --- |
| **UNIVERSITY:** | DSU |
| **PROGRAM TITLE:** | Artificial Intelligence, B.S. |
| **CIP CODE:** | 111003 |
| **UNIVERSITY DEPARTMENT:** | The Beacom College of Computer and Cyber Sciences |
| **BANNER DEPARTMENT CODE:** | DCOC |
| **UNIVERSITY DIVISION:** | Computer Science |
| **BANNER DIVISION CODE:** | DCSC |

**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.*

|  |  |  |
| --- | --- | --- |
|  |  | Click here to enter a date. |
| Vice President of Academic Affairs or President of the University |  | Date |

|  |
| --- |
|  |

1. **This modification addresses a change in (*place an “X” in the appropriate box*):**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Course *deletions* that do not change the nature of the program, or distribution of courses in the program, or change of total credit hours required |  | Course *additions* that do not change the nature of the program, or distribution of courses in the program, or change of total credit hours required |
|  |  |  |  |
|  | Revised courses in the program. |  |  |

1. **Effective date of change: Fall 2025**
2. **Program Degree Level (*place an “X” in the appropriate box*):**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Associate |  | Bachelor’s |  | Master’s |  | Doctoral |  |

1. **Category (*place an “X” in the appropriate box*):**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Certificate |  | Specialization |  | Minor |  | Major |  |

1. **Is the program associated with a current articulation agreement?**

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

* 1. **If yes, will the articulation agreement need to be updated with the partner institution as a result of this minor program modification? Why or why not?**

1. **Primary Aspects of the Modification (*add lines or adjust cell size as needed*):**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Existing Curriculum* | | | | | *Proposed Curriculum (highlight changes)* | | | | |
| **Pref.** | **Num.** | **Title** | **Cr.**  **Hrs.** |  | | **Pref.** | **Num.** | **Title** | **Cr. Hrs.** |
|  |  |  |  |  | |  |  |  |  |
| General Education | | | 30 |  | | General Education | | | 30 |
| Majors who test directly into MATH 123 or MATH 201 will not need to complete MATH 114 but must take 3 credits of general electives. | | |  |  | | Majors who test directly into MATH 123 or MATH 201 will not need to complete MATH 114 but must take 3 credits of general electives. | | |  |
|  |  |  |  |  | |  |  |  |  |
| Required Courses | | | 48 |  | | Required Courses | | | 48 |
|  |  |  |  |  | |  |  |  |  |
| CSC | 105 | Introduction to Computers | 3 |  | | CSC | 105 | Introduction to Computers | 3 |
| CSC | 150 | Computer Science I | 3 |  | | CSC | 150 | Computer Science I | 3 |
| CSC | 230 | Tech Foundations: Ethics | 1 |  | | CSC | 230 | Tech Foundations: Ethics | 1 |
| CSC | 232 | Tech Foundations: Scripting | 1 |  | | CSC | 232 | Tech Foundations: Scripting | 1 |
| CSC | 292 | Topics | 1 |  | | CSC | 233 | Tech Foundations: Secure AI Lifecycles | 1 |
| CSC | 247 | Introduction to AI | 3 |  | | CSC | 247 | Introduction to AI | 3 |
| CSC | 250 | Computer Science II | 3 |  | | CSC | 250 | Computer Science II | 3 |
|  |  |  |  |  | |  |  |  |  |
| CSC | 300 | Data Structures | 3 |  | | CSC | 300 | Data Structures | 3 |
| CSC | 386 | App of Deep Learning | 3 |  | | CSC | 386 | App of Deep Learning | 3 |
| CSC | 402 | Math Foundations of AI | 3 |  | | CSC | 402 | Math Foundations of AI | 3 |
|  |  |  |  |  | |  |  |  |  |
| CSC | 447 | Artificial Intelligence | 3 |  | | CSC | 447 | Artificial Intelligence | 3 |
| CSC | 478 | Artificial Intelligence Tools and Frameworks | \*6 |  | | CSC | 478 | Artificial Intelligence Tools and Frameworks | 3 |
|  |  |  |  |  | | CSC | 382 | Adversarial AI and Security | 3 |
| CSC | 479 | Applied Artificial Intelligence | \*6 |  | | CSC | 479 | Applied Artificial Intelligence | 3 |
|  |  |  |  |  | | CSC | 134 | Introduction to Cyber | 3 |
| CSC | 482 | Algorithms and Optimization | 3 |  | | CSC | 482 | Algorithms and Optimization | 3 |
| CIS | 368 | Predictive Analytics | 3 |  | | CIS | 368 | Predictive Analytics | 3 |
| CIS | 372 | Programming for Analytics | 3 |  | | CIS | 372 | Programming for Analytics | 3 |
|  |  |  |  |  | |  |  |  |  |
| \*Course is offered for 3 credits – student must take course twice. | | | |  | |  | | | |
|  |  |  |  |  | |  |  |  |  |
| Support Courses | | | 16 |  | |  | | | 16 |
|  |  |  |  |  | |  |  |  |  |
| Minor | | | 18 |  | |  | | | 18 |
|  |  |  |  |  | |  |  |  |  |
| Electives | | | 8 |  | |  | | | 8 |
|  |  |  |  |  | |  |  |  |  |
|  |  | Total Hours Required | 120 |  | |  |  | Total Hours Required | 120 |

1. **Explanation of the Change:**

Artificial Intelligence (AI) is rapidly transforming the cybersecurity landscape and reshaping the skills required for the future workforce. The proposed updates to the BSAI are designed to align with the SecureAI knowledge units within the newly introduced CyberAI Plans of Study -- part of the National Centers of Academic Excellence in Cybersecurity (NCAE-C) program managed by the NSA’s National Cryptologic School. Multiple DSU faculty members were invited to participate in the development of these knowledge units and DSU has been invited to participate in the Plan of Study (PoS) Validation pilot program.

Knowledge Units

<https://dl.dod.cyber.mil/wp-content/uploads/cae/pdf/unclass-cyber_ai_kus_stoneman.pdf>

Program Guidelines

<https://dl.dod.cyber.mil/wp-content/uploads/cae/pdf/unclass-cae_pos-cyberai.pdf>