

Financial Implication Form

Illinois State University Request for New Program Approval

Purpose: Proposed new undergraduate and graduate programs (degrees, sequences, minors, and certificates) must include information concerning how the program will be financially supported to proceed through the curricular process.

Procedure: This completed form is to be approved by the Department/School Curriculum Committee chair, department chair/school director, college dean, and Provost prior to submission of the proposal to the College Curriculum Committee.

Definition: A "program" can be a degree, a sequence within a degree, a minor, or a certificate. This form is to be used for both undergraduate and graduate programs.

Division	College/Unit	Department/School
VP and Provost	College of Arts and Sciences	No Response

Department/School (if not listed above)

IDS

Primary Contact ULID	Primary Contact First Name	Primary Contact Last Name	Primary Contact Email Address
gyamsku	Gaywalee	Yamskulna	gyamsku@ilstu.edu
Secondary Contact ULID	Secondary Contact First Name	Secondary Contact Last Name	Secondary Contact Email Address
tacart3	Traci	Carte	tacart3@ilstu.edu

Proposed New Program

Data Science, B.S.

Brief Description of the Proposed Program

The IDS Data Science major prepares students with the technical knowledge and computational skills to meet current and future problem solving and analysis of large data sets. The IDS Data Science major is an interdisciplinary major with three core areas of curricula including: 1) mathematics and statistics, 2) information technology and computer science, and 3) an applied sequence for contextual application in an area linked to the future career path of the student. The sequences include 1) Big Data and Computational Intelligence, 2) Business Analytics, 3) Population Health, 4) Social Demographic/Public Policy analytics, and 5) Individualized Plan of Study.

The core curriculum will include 32 credit hours of Mathematics courses (20 hours basic and 12 hours advanced courses), 14 credit hours of Information Technology courses, one ethics course, one data visualization course, and one capstone/internship course. The capstone course will be an instructor led course to complete an applied data science project from an external partner. As an alternative to the campus-based capstone project course, students may elect to complete an externally based internship for the equivalent of a 3-credit hour course. Each sequence will consist of seven (7) additional courses. The proposal provides for five sequences including: 1) Big Data and Computational Intelligence, 2) Business Analytics, 3) Population Health, 4) Social Demographic/Public Policy analytics, and 5) Individualized Plan of Study.

Is this a Teacher Education program?

No

Is this a graduate program?

No

Enrollments

Summarize enrollment and degrees conferred projections for the program for the first- and fifth-years of operation. If possible, indicate the number of full-time and part-time students to be enrolled each fall term in the notes section. If it is not possible to provide fall enrollments or fall enrollments are not applicable to this program, please indicate so and give a short explanation.

Student Enrollment and Degree Projections for the Proposed Program

Fall Headcount of Program Majors/Minors (1st year)

50

Fall Headcount of Program Majors/Minors (5th year or when fully implemented)

250

Annual FTE Program Majors/Minors (1st year)

50

Annual FTE Program Majors/Minors (5th year or when fully implemented)

250

Annual Degrees Awarded (1st year)

0

Annual Degrees Awarded (5th year or when fully implemented)

50

Relevant Notes for Enrollment

Students are to be enrolled in a cohort.

Budget Rationale

Estimated Costs of the Proposed Program - **For all sections below, only NEW resources not currently available to the program.**

Operating Expenses

Including but not limited to: Contractual, Commodities, Equipment, etc.

Is the unit's (College, Department, School) current operating budget (contractual, commodities, equipment, etc.) adequate to support the program when fully implemented?

Yes

Please explain.

Operating budgets will be sufficient to begin and sustain a steady state enrollment of 250 students across all units. However, should unexpected growth occur beyond the estimated 250 students, a review will be conducted to identify what additional resources might be needed and to which units those additional resources will be distributed. ☒ ☒

If new resources are to be provided to the unit to support the program, what will be the source(s) of these funds?

Operating budgets will be sufficient to begin and sustain a steady state enrollment of 250 students across all units.

Operating Expenses (1st year)

\$0.00

Operating Expenses (5th year or when fully implemented)

\$0.00

Personnel

What impact will the new program have on faculty assignments in the department?

The Math department will need one additional tenure track faculty member who specializes in Applied & Pure Mathematics in year 1 and three additional tenure track faculty members who specialize in Applied & Pure Mathematics and Statistics by year 5 for a total of 4 faculty by year 5. Every time the number of students in the IDS Data Science major increases by 60 students, the Department of Mathematics will need 1 additional full time tenure track faculty member who specializes in Applied & Pure Mathematics and 1 additional full time tenure track faculty member who specializes in Statistics.☒

The School of Information Technology will need one additional faculty in year 1 and two additional by year 5 for a total of 3 faculty by year 5.☒ Given existing growth in the School of Information Technology, one additional faculty member is needed to meet current demand and support the additional students in Year 1. Since the School of Information Technology will be serving all students in the major, one additional faculty member will be needed for every 100 students enrolled in the program.

The Marketing department and the BIS program will each need one additional faculty for every 200 students enrolled in Data Science. If growth occurs as anticipated, by steady state, we estimate that a sizeable portion of students will be choosing the Business Analytics sequence necessitating two new faculty members total between the Marketing and BIS programs.

Breakdown of faculty by unit:

MAT – \$85,000 Year 1 (1) and \$255,000 by Year 5 (3)

IT – \$110,000 Year 1 (1) and \$220,000 by Year 5 (2)

MKT – \$140,000 by Year 5 (1)

BIS – \$125,000 by Year 5 (1)

Additional faculty lines may be requested in Health Sciences, Politics and Government, and Sociology and Anthropology as those sequences grow. Allocation of faculty lines will be based on evidence of sustained growth in the Data Science program and existing faculty needs in the supporting units.

Will current faculty be adequate to provide instruction for the new program?

No

Will additional faculty need to be hired, either for the proposed program or for courses faculty of the new program would otherwise have taught?

Yes

Please indicate whether new faculty members will be full-time or part-time faculty, tenure track or non-tenure track faculty.

The Math department will need one additional tenure track faculty member who specializes in Applied & Pure Mathematics in year 1 and three additional tenure track faculty members who specialize in Applied & Pure Mathematics and Statistics by year 5 for a total of 4 tenure track faculty by year 5. Every time the number of students in the IDS Data Science major increases by 60 students, the Department of Mathematics will need 1 additional full time tenure track faculty member who specializes in Applied & Pure Mathematics and 1 additional full time tenure track faculty member who specializes in Statistics.

The School of Information Technology will need one additional tenure track faculty in year 1 and two additional by year 5 for a total of 3 tenure track faculty by year 5. Given existing growth in the School of Information Technology, one additional tenure track faculty member is needed to meet current demand and support the additional students in Year 1. Since the School of Information Technology will be serving all students in the major, one additional tenure track faculty member will be needed for every 100 students enrolled in the program.

The Marketing department and the BIS program will each need one additional tenure track faculty for every 200 students enrolled in Data Science. If growth occurs as anticipated, by steady state, we estimate that a sizeable portion of students will be choosing the Business Analytics sequence necessitating two new tenure track faculty members total between the Marketing and BIS programs.

Will current staff be adequate to implement and maintain the new program?

No

Please explain.

At the start of the program, one AP staff member will be needed to perform initial advisement and internship/capstone coordination. This person will need a specialized background in Data Science or a related discipline to effectively support the growth of the program and success of students. By year 5, if enrollment goals are met or exceeded, a .5 advisor would be needed to support the increased duties related to advising to allow the internship/capstone coordinator to focus on those duties.

Will current advising staff be adequate to provide student support and advisement, including job placement and or admission to advanced studies?

No

Will additional staff be hired?

Yes

Please elaborate.

At the start of the program, one AP staff member will be needed to perform initial advisement and internship/capstone coordination. This person will need a specialized background in Data Science or a related discipline to effectively support the growth of the program and success of students. By year 5, if enrollment goals are met or exceeded, a .5 advisor would be needed to support the increased duties related to advising to allow the internship/capstone coordinator to focus on those duties.

Faculty FTE (1st year)

2

Faculty FTE (5th year or when fully implemented)

9

Faculty Salary Dollar(s) (1st year)

\$195,000.00

Faculty Salary Dollar(s) (5th year or when fully implemented)

\$740,000.00

Other Personnel Costs (1st year)

\$60,000.00

Other Personnel Costs (5th year or when fully implemented)

\$25,000.00

Facilities

Including but not limited to rental, maintenance, etc.

Are the unit's current facilities adequate to support the program when fully implemented?

Yes

Will there need to be facility renovation or new construction to house the program?

Any renovation can be funded through AEF. ☒

For a new degree program describe in detail the facilities and equipment available to maintain high quality in this program including buildings, classrooms, office space, laboratories, equipment and other instructional technologies for the program.

Current facilities are adequate to support the start of the program, but as enrollment goals are met or exceeded, additional classroom space will be needed to meet demand. In addition, office space will be needed for new faculty and staff although these needs might be served by reallocating space that might otherwise become available within existing units. However, any renovation can be funded through AEF. ☒

Are library resources adequate to support the program when fully implemented? Please elaborate.

Yes. Milner Library has indicated sufficient resources to support all the sequences within the Data Science program.

Facilities Costs (1st year)

\$0.00

Facilities Costs (5th year or when fully implemented)

\$0.00

Other Costs

Are there any additional costs not addressed above?

No

Please explain.

NA

Are any sources of funding temporary (e.g., grant funding)?

No

How will the program be sustained once these funds are exhausted?

NA

If this is a graduate program, discuss the intended use of graduate assistantships and where the funding for assistantships would come from.

NA

Itemized Costs

1. Description	1. Cost (1st year)	1. Cost (5th year or when fully implemented)
----------------	--------------------	--

Total Costs

Please subtotal the Operating, Personnel, Facilities, and Other Costs.

Total Cost (1st Year)

\$255,000.00

Total Cost (5th year or when fully implemented)

\$765,000.00

Notes

Other Attachment/Documentation

No Response

Approval Signatures

Department/School Curriculum Committee Chair

DSCCC Signature

Electronically Signed by David Barker (dbarker@ilstu.edu) - April 11, 2023 at 1:49 PM (America/Chicago)

Department Chairperson/School Director

DCSD Signature

Electronically Signed by Gaywalee Yamskulna (gyamsku@ilstu.edu) - April 11, 2023 at 2:20 PM (America/Chicago)

College Dean

CD Signature

Electronically Signed by Amy Hurd (arhurd@ilstu.edu) - April 11, 2023 at 5:16 PM (America/Chicago)

Provost

Provost Signature

College Curriculum Committee Chairperson

CCCC Signature

No Response

University Curriculum Committee Chairperson

UCCC Signature

No Response

Chairs and Deans - Routing Steps
To be completed by the Provost's Office.

The ULID is the part of your Illinois State University email address before the @ symbol.

Dept/School Curriculum Committee Chair ULID	First Name	Last Name	Email Address
dbarker	David	Barker	dbarker@ilstu.edu

Dept/School Chair ULID	First Name	Last Name	Email Address
gyamsku	Gaywalee	Yamskulna	gyamsku@ilstu.edu

College/Dean ULID	First Name	Last Name	Email Address
arhurd	Amy	Hurd	arhurd@ilstu.edu

College Curriculum Committee Chair ULID	First Name	Last Name	Email Address
gferren	Gregory	Ferrence	gferren@ilstu.edu

University Curriculum Committee Chair ULID	First Name	Last Name	Email Address
mecalif	Mary Elaine	Califf	mecalif@ilstu.edu

For Workflow Purposes Only
The following data will be used to route the submitted form to the proper individuals in the workflow. If you see issues with the names in the route steps below, contact the Workflow Support Team (workflowsupport@ilstu.edu) for assistance.

Primary Contact ULID (HCM Link)	Secondary Contact ULID (HCM Link)

gyamsku

tacart3

D/S Curr-Comm Chair
ULID (HCM Link)

D/S Curr-Comm Chair
Name (Kuali Link)

D/S Chair ULID (HCM
Link)

D/S Chair Name (Kuali
Link)

dbarker

David Barker

gyamsku

Gaywalee Yamskulna

College/Dean ULID (HCM
Link)

College/Dean Name
(Kuali Link)

College Curr-Comm Chair
ULID (HCM Link)

College Curr-Comm Chair
Name (Kuali Link)

arhurd

Amy Hurd

gferren

Gregory Ferrence

University Curr-Comm Chair ULID (HCM Link)

University Curr-Comm Name (Kuali Link)

mecalif

Mary Elaine Califf

Form Submission - Proposer

Submitted for Approval | Proposer

Gaywalee Yamskulna - April 11, 2023 at 8:13 AM (America/Chicago)

Submission Notification

Notification Sent

Gaywalee Yamskulna - April 11, 2023 at 8:13 AM (America/Chicago)

Provost (Update)

Approved

J Cooper Cutting - April 11, 2023 at 9:13 AM (America/Chicago)

Ani Yazedjian

D/S Curr-Comm Chair

Approved

David Barker - April 11, 2023 at 1:49 PM (America/Chicago)

D/S Chair

Approved

Gaywalee Yamskulna - April 11, 2023 at 2:20 PM (America/Chicago)

College Dean

Approved

Amy Hurd - April 11, 2023 at 5:17 PM (America/Chicago)

Status Update Email

Notification Sent

Curriculum Forms - Registrar Office - April 11, 2023 at 5:17 PM (America/Chicago)

Provost (Approve)

Approved

Jean Ann Dargatz

Ani Yazedjian - April 11, 2023 at 5:24 PM (America/Chicago)

Approval Email

Notification Sent

Gaywalee Yamskulna - April 11, 2023 at 5:25 PM (America/Chicago)

Approval Email

Notification Sent

David Barker - April 11, 2023 at 5:25 PM (America/Chicago)

Approval Email

Notification Sent

Gaywalee Yamskulna - April 11, 2023 at 5:25 PM (America/Chicago)

Approval Email

Notification Sent

Amy Hurd - April 11, 2023 at 5:25 PM (America/Chicago)

Approval Email

Generating PDF

J Cooper Cutting

Ani Yazedjian

Coll Curr-Comm Chair

Approval

Gregory Ferrence

Univ Curr-Comm Chair

Approval

Mary Elaine Califf

Status Update Email

Notification

Curriculum Forms - Registrar Office

Approval Email

Notification

Gaywalee Yamskulna

Approval Email

Notification

gyamsku@ilstu.edu

Approval Email

Notification

tacart3@ilstu.edu

Approval Email

Notification

J Cooper Cutting

Ani Yazedjian

Approval Email

Notification

Curriculum Forms - Registrar Office
