UF | Board of Trustees
UNIVERSITY of FLORIDA

COMMITTEE ON ACADEMIC, FACULTY AND STUDENT SUCCESS, PUBLIC RELATIONS AND STRATEGIC COMMUNICATIONS
PRE-MEETING AGENDA
Wednesday, November 13, 2024
10:30 a.m.
(or at the conclusion of the FCI Pre-Meeting beginning at 9:30 a.m.)
Virtual Meeting: (646) 558-8656, ID#: 963 6642 3194

Committee Members:
Rahul Patel (Committee and Board Vice Chair), John E. Brinkman, Richard P. Cole, James W. Heavener, Daniel T. O'Keefe, Sarah D. Lynne, Anita G. Zucker

1.0 Call to Order and Welcome ..... Rahul Patel, Chair

2.0 Roll Call ..... Vice President Liaison

3.0 Review Draft Agenda for December Meeting ..... Rahul Patel, Chair

3.1 Review Draft Minutes

- June 13, 2024
- August 12, 2024
- October 3, 2024

3.2 Review Action Items

- AFSSPRSC1 Tenure Upon Hire ..... Joe Glover, Interim Provost
- AFSSPRSC2 New Degree ..... Joe Glover
- AFSSPRSC3 Degree Program Changes ..... Joe Glover

3.3 Review Discussion Items

- Admissions Update ..... Mary Parker, Vice President for Enrollment Management
- Faculty Senate Update ..... Sarah Lynne, Faculty Senate Chair
- Student Body President Update ..... John Brinkman, Student Body President
- Student Life Update ..... Heather White, Vice President for Student Life
- Academic Program Review Process ..... Joe Glover
- Centers/Institutes ..... Joe Glover

4.0 New Business ..... Rahul Patel, Chair

5.0 Adjourn ..... Rahul Patel, Chair

COMMITTEE ON ACADEMIC, FACULTY AND STUDENT SUCCESS, PUBLIC RELATIONS AND STRATEGIC COMMUNICATIONS
Meeting Minutes
June 13, 2024
President's Room 215B, Emerson Alumni Hall
University of Florida, Gainesville, FL
Time Convened: 8:45 a.m.
Time Adjourned: 11:14 a.m.

Committee and Board members present:
Rahul Patel (Committee and Board Vice Chair), David L. Brandon, John E. Brinkman, Christopher T. Corr, James W. Heavener, Morteza "Mori" Hosseini (Board Chair), Sarah D. Lynne, Daniel T. O'Keefe, Marsha D. Powers, Fred S. Ridley, Patrick O. Zalupski, and Anita G. Zucker.

Others present:
Ben Sasse, President; Scott Angle, Provost and Senior Vice President for Academic Affairs; Melissa Curry, Vice President for Human Resources; Dan Dillon, Vice President for Marketing and Senior Advisor; Kurt Dudas, Vice President/Jacksonville Lead; Elias Eldayrie, Vice President and Chief Information Officer; Robert Gilbert, Interim Senior Vice President for Agriculture and Natural Resources, Amy Hass, Vice President and General Counsel; Taylor Jantz, Chief Financial Officer; Mark Kaplan, Vice President for Government and Community Relations and University Secretary; David Kratzer, Senior Vice President for Construction, Facilities, and Auxiliary Operations; Maria Gutierrez Martin, Interim Vice President for Advancement; Stephen Motew, President and System Chief Executive Officer of UF Health; David Nelson, Senior Vice President for Health Affairs; Mary Parker, Vice President and Chief Enrollment Strategist; Raymond Sass, Vice President for Innovation and Partnerships; Penny Schwinn, Vice President for PK-12 and Pre-Bachelors Programs; Jim Staten, Senior Advisor to the President; Scott Stricklin, Director of Athletics; James Wegmann, Vice President for Communications; Heather White, Vice President for Student Life; members of the University of Florida community, and the public.

1.0 Call to Order and Welcome
Committee and Board Vice Chair Rahul Patel welcomed everyone in attendance and called the meeting to order at 8:45 a.m.

2.0 Verification of Quorum
Provost Scott Angle verified a quorum with all members present, except Trustee Cole who had an excused absence.

3.0 Review and Approval of Minutes
March 7, 2024, April 29, 2024, and May 14, 2024

Committee Chair Patel asked for a motion to approve the minutes from the March 7, 2024, Committee Meeting, the April 29, 2024, Committee Meeting, and the May 14, 2024, Committee Pre-Meeting, which was made by Trustee Zucker and seconded by Trustee O'Keefe. Committee Chair Patel asked for further discussion, after which he asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

4.0 Action Items

AFSSPRSC1 Tenure Upon Hire

Provost Angle summarized the three Tenure Upon Hire cases. These cases have met the criteria for tenure and have been recommended to the Board by the Provost and President to receive tenure. He noted one case was reviewed at the May Committee Pre-Meeting and two additional cases received approval after that meeting.

- **Institute of Food and Agricultural Sciences (IFAS)**
  - Dr. Mark Kistler, Professor, Department of Agricultural Education and Communication and Center Director, Indian River Research and Education Center
- **College of Liberal Arts and Sciences**
  - Dr. Sean Grass, Professor, Department of English
- **College of Journalism and Communications**
  - Dr. Lindita Camaj, Associate Professor, Department of Journalism

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve Action Item AFSSPRSC1 for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee Zucker, and second which was made by Trustee Brinkman. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

AFSSPRSC2 Annual Tenure Awards

Provost Angle stated the Annual Tenure Awards grant tenure and permanent status to faculty who meet the requirements of the university's tenure and permanent status policy. The 130 candidates on the list provided to the Board for approval was fully vetted through the university process, which includes recommendations by the Provost and President.

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve Action Item AFSSPRSC2 for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee O'Keefe, and second which was made by Trustee Zucker. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

AFSSPRSC3 Self-Supporting Programs

Provost Angle summarized the two college requests for three Self-Supporting Programs:

- The College of Agricultural and Life Sciences proposed to add a new concentration within the Ph.D. in Microbial and Cellular Data Science (CIP 26.0503) and a Master of Science in Interdisciplinary Ecology for Distance Education (CIP 26.1301)
- The College of Liberal Arts and Sciences proposed to develop a fully online Master of Arts in Economics with a concentration in Econometrics and Data Analysis (CIP 45.0603)

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve Action Item AFSSPRSC3 for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee Zucker, and second which was made by Trustee O'Keefe. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

AFSSPRSC4 Degree Program Termination

Provost Angle reviewed the one Degree Program Termination request:

- The College of Agriculture and Life Sciences requested to terminate the Masters in Animal Molecular and Cellular Biology. The 5 current students enrolled in the program are expected to complete the program in Spring 2025.

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve Action Item AFSSPRSC4 for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee O'Keefe, and second which was made by Trustee Zucker. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

AFSSPRSC5 Common Prerequisite Manual Changes

Provost Angle summarized two college requests for four Common Prerequisite Manual Changes:

- The College of Agricultural and Life Sciences proposed to create a separate track for the Agricultural Operations Management degree program and add course alternatives to the Bachelor of Science and Bachelor of Arts in Environmental Sciences degree programs.
- The College of Public Health and Health Professions proposed the Bachelor of Public Health program be added and changed from a specialized admission program to a limited access program, as well as establish 3 new tracks for The Bachelor of Health Science program.

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve Action Item AFSSPRSC5 for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee Zucker, and second which was made by Trustee O'Keefe. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

AFSSPRSC6 General Education Courses Annual Review

Committee Chair Patel stated pursuant to new BOG Regulation 8.005, the Board and President are now required to annually review and approve the courses offered by the institution that meet general education course requirements and submit the approved list to the Florida Department of Education Articulation Coordinating Committee by September 1 of each year. Provost Angle noted over 1,000 courses were reviewed and included in the report.

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve Action Item AFSSPRSC6 for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee Zucker, and second which was made by Trustee O'Keefe. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

AFSSPRSC7 New Degrees
Provost Angle summarized two New Degree proposals in the College of Veterinary Medicine: a Ph.D. degree and M.S. degree in Comparative Biomedical Sciences (CIP 26.0102).

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve Action Item AFSSPRSC7 for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee O'Keefe, and second which was made by Trustee Zucker. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

5.0 Discussion Items

5.1 Admissions Update
Vice President Mary Parker reviewed the 2024 application statistics, noting our goal was to receive 70,000 applications. We exceeded our goal with 74,000 applications received and 17,000 Honors program applications received. Compared to 2019, we have increased our applications by 63% and our Honors program applications by 55%. She and President Sasse visited several low-income and first-generation schools to better understand the needs of these students. The biggest challenge students experienced with confirmations was the delayed federal financial aid award notifications. To assist, the UF Office of Financial Aid and Scholarships created the Gator Spirit Awards. This award tailors financial aid packages for low-income students in Florida to ensure cost will not be a barrier to their decision. This award would not be on top of their federal and student aid, but a data-driven estimation of what aid they will receive. Board Chair Hosseini expressed his gratitude to VP Parker for her hard work the past three years. He noted the Board has seen the change in Enrollment Management, and she has done incredible work to make that happen.

Vice President Raymond Sass provided an update on the SEM Task Force, noting two dozen initiatives are in progress or planned. He focused on the three components of undergraduate student admissions: (1) 76% admitted each year are via the First-Time-In-College (FTIC) pathway and 7% are transfers, (2) 80% enroll in 4 colleges (Liberal Arts and Sciences, Engineering, Business, Agriculture and Life Sciences) and 10% enroll in the Health Sciences colleges, and (3) overall, 90% of our FTIC students enroll in 5 of 16 of our colleges. The same trends can be seen for undergraduate student enrollment in majors. This data gives us the opportunity to have clarity on a reference point on where we can begin our analysis of the cost of supply for our complex organization. President Sasse noted three big purposes we can derive from this data: (1) we need a better understanding of our budget, (2) we can identify the bottlenecks, and (3) we need to better align faculty hiring with student enrollment. Board Chair Hosseini added the benefit of the data can help us open roads for our students. We are the elite university in the state of Florida. The Board established our goal is to also be an elite university in the country.

5.2 Faculty Senate Update
Trustee and Faculty Senate Chair Sarah Lynne outlined the initiatives she plans to pursue during her term: (1) U.S. News and World Report ranking factors related to Faculty Excellence, (2) Faculty Recruitment and Retention, and (3) Administrative Burdens on Faculty.

Board Chair Hosseini welcomed Trustee Lynne to the Board and emphasized her passion for the university is shared by the Board. He noted the following: (1) our faculty are the lifeblood of this university, (2) it is our job as fiduciaries of the university to make sure we have the best faculty in

the country, (3) if faculty work hard, we want to ensure they are recognized, instead of unfairly treating everyone the same, (4), we have no political agenda and leave our ideologies at the door, and (5) faculty make the difference in the classroom teaching our students. We want our faculty to understand that this Board and our President are on their side.

5.3 Student Body President Update

Trustee and Student Body President John Brinkman outlined the initiatives he plans to pursue during his term: (1) Student Organizations & Funding, (2) Construction Projects in Development, and (3) Other Points & Initiatives (increased communication with students on campus construction projects, continued focus on enhancing campus safety, and Graduate Student Council travel grants to support graduate students attending conferences). Trustee Brinkman added sharing information about construction closures with students ahead of time will create transparency and help put their minds at ease. Committee Chair Patel recommended having a discussion on the tone, substance, and medium of distribution of a potential memo.

Board Chair Hosseini welcomed Trustee Brinkman to the Board and reminded him that he is now a fiduciary of the university. The students are why we are all here. When students graduate from UF, we want them to have more job opportunities than they know what to do with. He asked Trustee Brinkman to bring ideas to the Board that will improve the lives of our students.

5.4 Student Life Update

Vice President Heather White provided an update on student engagement efforts over the last year, how we build community, and new initiatives for 2024 and 2025. She noted the three pillars of focus are: (1) Community Connection, (2) Career Design, and (3) Lifelong Well-Being. She highlighted the area of Community Connection and its vital importance to student recruitment and retention. For 2024 and 2025, students can look forward to activities like Preview, the Great Gator Welcome, Student organization & Job fairs, Fall Family Weekend, Homecoming & Gator Growl, Greek recruitment, and E-Sports.

Trustee Brandon commented for the incoming 2028 class, we received all positive feedback. He thanked VP White, and everyone involved. Board Chair Hosseini echoed Trustee Brandon's comments and added students decide to come to UF because they have such a great experience going through the Preview process. They feel like they've been taken care of. Committee Chair Patel provided context that 4 or 5 years ago, we were receiving consistent negative feedback messages, both in the areas of Student Life and Admissions. When VP's White and Parker came on board, they made tremendous improvements.

5.5 Top 5 Update

VP's Sass, Parker, and White drilled down on the initiatives that are focused on students. VP Sass stated all the SEM initiatives ultimately impact the student and faculty rankings for U.S. News and World Report. He noted the new rankings formula and the initiatives currently in progress for RY2024. Board Chair Hosseini requested clarification on if the student to faculty ratio of 15 to 1 is the threshold for Top 5 on that specific metric and VP Sass confirmed. President Sasse commented what has happened over the last decade is the student outcomes and performance is off the charts, no other institutions compare. However, the faculty upgrade has not moved at quite the same pace, which is reflected in the expert opinion data. We must continue to focus on the things like the

10x10x10 initiative to try to increase our research publications and to differentiate our faculty between high and low performers.

VP's Parker and White summarized the Student Outcomes initiative highlighting graduation and retention rates of first-generation and low-income students. Overall, we have increased our student retention and graduation rates for these students. Next steps will be to: (1) expand targeted support beyond Machen Florida Opportunity Scholarship (MFOS) students, (2) focus on career from the start, and (3) cohorting, and (4) implementing enterprise-wide technology solutions. Exploratory students are another group we believe we can make significant progress on quickly. In partnership with the College of Engineering, we have developed a pilot study that will utilize intentional coaching to see if we can help these students choose a career pathway sooner and improve their probability of graduating in four years. We will share the results with the Board at a future meeting.

5.6 Marketing Update

Vice President for Marketing Dan Dillon shared an update on his first 100 days at UF. The current overarching theme for the UF brand is, "it's a very strong brand; however, it lacks a clear and unique identity." Our goal is to establish a clear and differentiated brand that will help us achieve the objectives of the 10x10x10 initiatives. Our primary strategy is to increase the prestige of an affinity for interest in the UF brand and our family of brands. He outlined the steps we need to take to create and market the One UF brand.

Board Chair Hosseini stated the One UF approach is the only way it works. Marketing must be cohesive. We are decentralized and we have worked hard to become One UF.

5.7 Degree Termination Process Update

Committee Chair Patel stated during the Degree Program Termination discussion in the May Committee Pre-Meeting, Board Chair Hosseini tasked the Committee with reviewing all university degrees to see if there are additional degrees that are inefficient and can be eliminated. Provost Angle stated the Provost's Office, working with Associate Provosts Cheryl Gater and Cathy Lebo, developed a critical process to review degree programs. If this Board approves, our next steps would be to implement this Academic Program Review Process.

Board Chair Hosseini stated this new process will help us with stakeholders and shows that we are being proactive. He asked Provost Angle to provide a copy of the process and Provost Angle agreed.

5.8 Institute Name Change

Provost Angle shared the UF Space Mission Institute will be renamed the Astraeus Space Institute after the child of Gaia (Earth) and Uranus (Sky) in Greek mythology. He reminded the Board of Dr. Rob Ferl's upcoming Blue Origin space flight in the next two months.

6.0 New Business

There was no new business to come before the Committee.

7.0 Adjourn

There being no further discussion, Committee and Board Vice Chair Rahul Patel adjourned the meeting at 11:14 a.m.

COMMITTEE ON ACADEMIC, FACULTY AND STUDENT SUCCESS, PUBLIC RELATIONS AND STRATEGIC COMMUNICATIONS
Monday, August 12, 2024
Virtual Meeting
University of Florida, Gainesville, FL
Time Convened: 11:13 a.m.
Time Adjourned: 11:28 a.m.

Committee and Board members present:
Rahul Patel (Committee Chair and Board Vice Chair), David L. Brandon, John E. Brinkman, Richard P. Cole, Morteza "Mori" Hosseini (Board Chair), Sarah D. Lynne, Daniel T. O'Keefe, Marsha D. Powers, Fred S. Ridley, Patrick O. Zalupski, and Anita G. Zucker.

Others present:
Kent Fuchs, Interim President; Scott Angle, Provost and Senior Vice President for Academic Affairs; Melissa Curry, Vice President for Human Resources; Dan Dillon, Vice President for Marketing and Senior Advisor; Kurt Dudas, Vice President for Strategic Initiatives; Elias Eldayrie, Vice President and Chief Information Officer; Amy Hass, Vice President and General Counsel; Taylor Jantz, Senior Vice President and Chief Financial Officer; Mark Kaplan, Vice President for Government and Community Relations and University Secretary; David Kratzer, Senior Vice President for Construction, Facilities, and Auxiliary Operations; Maria Gutierrez Martin, Interim Vice President for Advancement; Stephen Motew, UF Health President and System Chief Executive Officer; David Nelson, Senior Vice President for Health Affairs; David Norton, Vice President for Research; Mary Parker, Vice President and Chief Enrollment Strategist; Brandi Renton, Interim Vice President for Business Affairs; Scott Stricklin, Director of Athletics; James Wegmann, Vice President for Communications; Heather White, Vice President for Student Life; members of the University of Florida community, and the public.

1.0 Call to Order and Welcome
Committee Chair and Board Vice Chair Rahul Patel welcomed everyone in attendance and called the meeting to order at 11:13 a.m.

2.0 Verification of Quorum
Provost Scott Angle verified a quorum with all members present, except Trustee Heavener who has an excused absence.

3.0 Action Items
AFSSPRSC1 Tenure Upon Hire
Committee Chair Patel stated there are 13 Tenure Upon Hire cases that have been reviewed, met the criteria for tenure, and have been recommended to the Board by the Provost, President Emeritus Ben Sasse, and Interim President Kent Fuchs.

Provost Angle summarized the 13 Tenure Upon Hire cases:

- **Herbert Wertheim College of Engineering**
  - Dr. Premjeet Chahal - Professor, Department of Electrical and Computer Engineering
  - Dr. Mingyue Ji - Associate Professor, Department of Electrical and Computer Engineering
- **College of Journalism and Communications**
  - Dr. Francis Dalisay - Associate Professor, Department of Public Relations
- **College of Liberal Arts and Sciences**
  - Dr. Cameron Buckner - Professor, Department of Philosophy
- **College of Medicine**
  - Dr. Mohammed N. Ahmed - Chief and Professor, Department of Pediatrics
- **College of Pharmacy**
  - Dr. Leslie Sombers - Professor, Department of Pharmacodynamics
- **College of Veterinary Medicine**
  - Dr. Sulma Mahammed - Professor, Department of Small Animal Clinical Sciences
- **Hamilton Center for Classical and Civic Education**
  - Dr. David Dusbenbury - Associate Professor
  - Dr. Gianna Englert - Associate Professor
  - Dr. Allen Guelzo - Professor
  - Dr. Michael Leggiere - Professor
  - Dr. Darren Staloff - Professor
  - Dr. Karen Taliaferro - Associate Professor

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve Action Item AFSSPRSC1 for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee Zucker, and second which was made by Trustee O'Keefe. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

AFSSPRSC2 New Degrees

Provost Angle summarized two New Degree proposals in The Hamilton Center for Classical and Civic Education: 1) Bachelor of Arts in Liberal Studies and 2) Bachelor of Arts in Philosophy, Politics, Economics, and Law (PPEL).

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve Action Item AFSSPRSC2 for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee Cole, and second which was made by Trustee O'Keefe. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

AFSSPRSC3 University Press of Florida Annual Report

Provost Angle stated as an Academic Infrastructure Support Organization, the University Press of Florida is required to submit a Board of Trustees approved annual report to the Board of Governors by October 31 of each year.

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve Action Item AFSSPRSC3 for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee O'Keefe, and second which was made by Trustee Zucker. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

AFSSPRSC4 Self-Supporting and Market Rate Tuition College-Credit Programs Annual Report
Provost Angle stated pursuant to Board of Governors Regulation 8.002(4), institutions must complete an annual report on all college-credit self-supporting and market tuition rate education programs. The report must be approved by the Board of Trustees prior to submission.

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve Action Item AFSSPRSC4 for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee Cole, and second which was made by Trustee O'Keefe. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

AFSSPRSC5 Textbook and Instructional Materials Affordability Report
Provost Angle stated pursuant to Board of Governors Regulation 8.003, the university is required to submit a Board of Trustees approved annual report demonstrating our efforts to reduce the cost of textbooks to the Board of Governors by September 30 of each year.

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve Action Item AFSSPRSC5 for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee Zucker, and second which was made by Trustee Cole. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

AFSSPRSC6 General Education Courses Annual Review
Board Chair Hosseini noted in his opening remarks Provost Angle pulled this action item from the agenda. It needs further review to ensure we are 100% compliant with our state laws and Board of Governors regulations before submission.

Early Admissions Calendar
Board Chair Hosseini stated a new action item has been added to the agenda for the Board's approval of an Early Admissions Calendar. Committee Chair Patel commented we have been working for several years to establish an early admissions program that keeps us competitive with other top universities. [Vice President for Enrollment Management Mary Parker stated the early admissions program would go into effect for those students applying for summer and fall 2025. The application submission deadline will remain the same, but every other deadline has been moved up. Decisions will be released to students on January 24. This will critically impact our ability to commit the best students to UF.

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve the new Early Admissions Calendar Action Item for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee Cole, and second which was made by

Trustee Zucker. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, and the motion was approved unanimously.

4.0 New Business

There was no new business to come before the committee.

5.0 Adjourn

There being no further discussion, Committee Chair and Board Vice Chair Patel adjourned the meeting at 11:28 a.m.

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COMMITTEE ON ACADEMIC, FACULTY AND STUDENT SUCCESS, PUBLIC RELATIONS AND STRATEGIC COMMUNICATIONS

Thursday, October 3, 2024
Virtual Meeting
University of Florida, Gainesville, FL
Time Convened: 8:03 a.m.
Time Adjourned: 8:07 a.m.

Committee and Board members present:
Rahul Patel (Committee Chair and Board Vice Chair), David L. Brandon, John E. Brinkman, Richard P. Cole, Christopher T. Corr, Morteza "Mori" Hosseini (Board Chair), Sarah D. Lynne, Daniel T. O'Keefe, Marsha D. Powers, Patrick O. Zalupski, and Anita G. Zucker.

Others present:
Kent Fuchs, Interim President; Joe Glover, Interim Provost and Senior Vice President for Academic Affairs; Scott Angle, Senior Vice President for Agriculture and Natural Resources; Melissa Curry, Vice President for Human Resources; Dan Dillon, Vice President for Marketing and Senior Advisor; Elias Eldayrie, Vice President and Chief Information Officer; Ryan Fuller, Interim Vice President and General Counsel; Taylor Jantz, Senior Vice President and Chief Financial Officer; Mark Kaplan, Vice President for Government and Community Relations and University Secretary; David Kratzer, Senior Vice President for Construction, Facilities, and Auxiliary Operations; Maria Gutierrez Martin, Interim Vice President for Advancement; Stephen Motew, UF Health President and System Chief Executive Officer; David Nelson, Senior Vice President for Health Affairs; David Norton, Vice President for Research; Mary Parker, Vice President and Chief Enrollment Strategist; Brandi Renton, Interim Vice President for Business Affairs; Scott Stricklin, Director of Athletics; James Wegmann, Vice President for Communications; Heather White, Vice President for Student Life; members of the University of Florida community, and the public.

1.0 Call to Order and Welcome

Prior to the start of the AFSSPRSC committee meeting, Board Chair Hosseini shared a few comments: (1) Thank you to everyone for meeting early in the morning out of respect for those who will be observing the Jewish holiday Rosh Hashanah, (2) Hurricane Helene had a devastating impact across multiple states. He thanked Interim President Fuchs and all the emergency staff that helped keep our campus, students, faculty, and staff safe during the storm, (3) Welcome to Interim Vice President and General Counsel Ryan Fuller and welcome back to Interim Provost Joe Glover, and (4) Most items on the committee agendas today are time sensitive and could not wait until our December board meeting. Each committee will convene to review and vote on their action items, then the full board will be called to vote on all committee action items.

Committee Chair and Board Vice Chair Rahul Patel welcomed everyone in attendance and called the AFSSPRSC committee meeting to order at 8:03 a.m.

2.0 Verification of Quorum

Interim Provost Joe Glover verified a quorum with all members present, except Trustee Heavener who had an excused absence.

3.0 Action Item

AFSSPRSC1 General Education Courses Annual Review

Committee Chair Patel stated students enrolled in universities across our state system are required to take a certain number of general education courses to obtain a bachelor's degree. The state university system is required to offer students courses that meet this general education requirement in the areas of communications, humanities, mathematics, natural sciences, and social sciences (examples: English composition, history, biology, chemistry, philosophy, political science). These courses are designed to provide students with a knowledge base that is helpful in developing well rounded intellectual skills, critical thinking abilities, and communication skills. Last year the state of Florida passed legislation that updated the requirements for general education courses, resulting in the requirement of universities to annually report to their Board of Trustees and the Board of Governors (BOG) that their general education courses are compliant with these requirements.

Interim Provost Glover shared that during the previous spring and summer semesters, the Provost's Office worked with the colleges and the General Counsel's Office to review courses and syllabi to assess whether each general education course was either compliant with the legislation, could be modified to be compliant, or could be offered to students as an elective rather than a general education course. He added the BOG Chancellor will continue to work with Interim President Fuchs and Board Chair Hosseini to review UF's course list and consider adjustments, including reinstating some courses back to general education status.

Committee Chair Patel asked for any questions or further discussion. He then asked for a motion to approve Action Item AFSSPRSC1 for recommendation to the Board for its approval on the Consent Agenda, which was made by Trustee Cole, and second which was made by Trustee Zucker. Committee Chair Patel asked for further discussion, and then asked for all in favor of the motion and any opposed, which was made by Trustee Brinkman. The motion was approved by the majority.

4.0 New Business

There was no new business to come before the committee.

5.0 Adjourn

There being no further discussion, Committee Chair and Board Vice Chair Patel adjourned the meeting at 8:07 a.m.

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COMMITTEE ON ACADEMIC, FACULTY AND STUDENT SUCCESS, PUBLIC RELATIONS AND STRATEGIC COMMUNICATIONS
ACTION ITEM AFSSPRSC1
December 12, 2024

SUBJECT: Tenure Upon Hire

BACKGROUND INFORMATION

The Chairs and Deans have recommended to the Provost and Senior Vice President for Academic Affairs that 5 faculty members be granted tenure commencing with their appointment. These individuals meet the criteria set forth in the University's tenure and permanent status policy and have been recommended by the Provost and President to receive tenure. Attached is a Summary of the Tenure Upon Hire case.

PROPOSED COMMITTEE ACTION

The Committee on Academic, Faculty and Student Success, Public Relations and Strategic Communications is asked to approve the Tenure Upon Hire cases listed on the attached Summary for recommendation to the Board of Trustees for its approval on the Consent Agenda. While any administrative appointment is noted, tenure is granted only for the faculty appointments.

ADDITIONAL COMMITTEE CONSIDERATIONS

Board of Governors approval is not required.

Supporting Documentation Included: Tenure Upon Hire Summary.

Submitted by: Joseph Glover, Interim Provost and Senior Vice President for Academic Affairs

Approved by the University of Florida Board of Trustees, December 13, 2024

_____ _____

Morteza "Mori" Hosseini, Chair Kent Fuchs, Interim President and Corporate Secretary

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Tenure Upon Hire Summary
November 13, 2024

Dr. Shuai Li – Herbert Wertheim College of Engineering
Associate Professor, Department of Civil and Coastal Engineering
Dr. Shuai Li earned his PhD in Civil Engineering from Purdue University in 2017. He also earned three MS degrees from Purdue — in economics, in 2016; industrial engineering, in 2015, and construction engineering and management, in 2014. He earned his BS in both project management and hydraulics and hydroelectric engineering from Tianjin University in 2012. He started his career in 2017 at the University of Tennessee in Knoxville, rising in the ranks from assistant to associate professor in 2017. He is recognized as a national leader in construction engineering, having received numerous prestigious honors and recognitions, including the Collingwood Prize from the American Society of Civil Engineers.

Dr. Raanan Rein – College of Liberal Arts and Sciences
Professor, Department of History
Dr. Raanan Rein earned his PhD in History from Tel Aviv University in 1991. His prior institution is Tel Aviv University. Dr. Rein has received prestigious international research grants, and he served as a visiting professor at the Institute for Romance Philology, in the Free University of Berlin's Global Faculty Program in 2022. Dr. Rein's scholarship consists of a broad variety of single authored books, edited volumes, refereed articles, and book chapters.

Dr. Anutosh Chakraborty – College of Pharmacy
Professor, Department of Pharmacodynamics
Dr. Anutosh Chakraborty received his PhD from the Indian Institute of Chemical Biology in 2005. His prior institution is Saint Louis University. He is currently PI on 2 NIH R01 grants totaling $4.7M. He has served on 5 distinct NIH study sections in the past 4 years and also serves on the editorial board of The Journal of Biological Chemistry. For the past two years, he has won the annual Best Teacher Award within the graduate school of the Saint Louis University School of Medicine.

Dr. Donna Zhang – Herbert Wertheim UF Scripps Institute for Biomedical Innovation and Technology
Professor, Center for Inflammation Science and Systems Medicine
Dr. Donna Zhang earned her PhD in 1997 and her MS in 1993 in Molecular Toxicology from the New York University. Dr. Zhang's prior institute is the University of Arizona. Dr. Zhang has authored nearly 150 original research publications and 40 review articles. She has accumulated a citation count of nearly 38,000 and has a h-index of 80.

Dr. Jason Yuan – Herbert Wertheim UF Scripps Institute for Biomedical Innovation and Technology
Professor, Center for Inflammation Science and Systems Medicine
Dr. Jason Yuan received a MD in 1983 from Suzhou Medical College and a PhD in 1993 from Peking Union Medical College. Dr. Yuan's prior institute is University of California. He has authored over 200 research articles and has an h-index of 90.

UF | Board of Trustees
UNIVERSITY of FLORIDA

COMMITTEE ON ACADEMIC, FACULTY AND STUDENT SUCCESS, PUBLIC RELATIONS AND STRATEGIC COMMUNICATIONS
ACTION ITEM AFSSPRSC2
December 12, 2024

SUBJECT: New Degree

BACKGROUND INFORMATION

The proposed M.S. degree with a major in Artificial Intelligence in Biomedical and Health Sciences in the College of Medicine (CIP 51.2706) is at the forefront of the intersection of trustworthy artificial intelligence (AI), translational biomedical sciences, and clinical practice. AIBHS students will become highly proficient in developing, validating, and deploying advanced AI technologies in real-world translational biomedical applications and clinical environments. Students will learn to design and implement trustworthy AI architectures in diverse domains, such as generative AI, large language models, electronic health records, wearable devices, and medical imaging.

PROPOSED COMMITTEE ACTION

The Committee on Academic, Faculty and Student Success, Public Relations and Strategic Communications is asked to approve the New Degree listed above for recommendation to the Board of Trustees for approval on the Consent Agenda.

ADDITIONAL COMMITTEE CONSIDERATIONS

Board of Governors approval is required.

Supporting Documentation Included: State University System of Florida Board of Governors Request to offer a New Degree Program Form.

Submitted by: Joseph Glover, Interim Provost and Senior Vice President for Academic Affairs

Approved by the University of Florida Board of Trustees, December 13, 2024

_____ _____

Morteza “Mori” Hosseini, Chair Kent Fuchs, Interim President and Corporate Secretary

STATE UNIVERSITY SYSTEM OF FLORIDA

State University System of Florida Board of Governors

REQUEST TO OFFER A NEW DEGREE PROGRAM

In accordance with Board of Governors Regulation 8.011

(Please do not revise this proposal format without prior approval from Board staff)

University of Florida **Institution Submitting Proposal**	Spring 2025 **Proposed Implementation Term**
College of Medicine **Name of College(s) or School(s)**	IC³ (The Center is administered through the College of Medicine) **Name of Department(s)/Division(s)**
Medical Informatics **Academic Specialty or Field**	Master of Science (M.S.) with a major in Artificial Intelligence in Biomedical and Health Sciences **Complete Name of Degree**
51.2706 **Proposed CIP Code (2020 CIP)**	**Proposed Program Type** ☐ **E&G Program** ☐ **Market Tuition Rate Program** ☐ **Self-Supporting Program**

The submission of this proposal constitutes a commitment by the university that, if the proposal is approved, the necessary financial resources and the criteria for establishing new programs have been met before the program's initiation.

Date Approved by the University Board of Trustees	10/28/24 **President's Signature** **Date**
Board of Trustees Chair's Signature **Date**	Joseph Glover 10/28/2024 | 11:14 AM EDT **Provost's Signature** **Date**

Projected Enrollments and Program Costs

Provide headcount (HC) and full-time equivalent (FTE) student estimates for Years 1 through 5. HC and FTE estimates should be identical to those in Appendix A – Table 1. Indicate the program costs for the first and the fifth years of implementation as shown in the appropriate columns in Appendix A – Table 3A or 3B. Calculate an Educational and General (E&G) cost per FTE for Years 1 and 5 by dividing the total E&G by FTE.

Implementation Timeframe	HC	FTE	E&G Cost per FTE	E&G Funds	Contract & Grants Funds	Auxiliary/ Philanthropy Funds	Total Cost
Year 1	20	12.5					$806,911.05
Year 2	40	25					
Year 3	60	37.5					
Year 4	80	50					
Year 5	100	62.5					$1,472,270.46

Programs of Strategic Emphasis Waiver *(for baccalaureate programs only)*

Does the program fall under one of the CIP codes listed below?

☐ **Yes**

☒ **No**

If yes, students in the program will be eligible for the Programs of Strategic Emphasis (PSE) waiver. See Board Regulation 7.008 and the PSE Waiver Guidance for additional details.

CIP CODE	CIP TITLE	CATEGORY
11.0101	Computer and Information Sciences	STEM
11.0103	Information Technology	STEM
14.0801	Civil Engineering	STEM
14.0901	Computer Engineering	STEM
14.1001	Electrical and Electronics Engineering	STEM
27.0101	Mathematics	STEM
40.0801	Physics	STEM
52.0301	Accounting	GAP ANALYSIS
52.0801	Finance	GAP ANALYSIS
52.1201	Management Information Systems	STEM

Additional Required Signatures

I confirm that I have reviewed and approved Need and Demand Section III.F. of this proposal.

Melissa Flury

Signature of Equal Opportunity Officer

01/16/2024

Date

I confirm that I have reviewed and approved Non-Faculty Resources Section IX.A. and IX.B. of this proposal.

Judith C. Russell — 12/5/2023

Signature of Library Dean/Director **Date**

Introduction

I. Program Description and Relationship to System-Level Goals

A. Describe within a few paragraphs the proposed program under consideration and its overall purpose, including:

- **degree level(s)**
- **majors, concentrations, tracks, specializations, or areas of emphasis**
- **total number of credit hours**
- **possible career outcomes for each major (provide additional details on meeting workforce need in Section III)**

We offer one major - Artificial Intelligence in Biomedical and Health Sciences. To earn the M.S., students must complete 30 credit hours.

The Artificial Intelligence in Biomedical and Health Science (AIBHS) M.S. program is at the forefront of the intersection of trustworthy artificial intelligence (AI), translational biomedical sciences, and clinical practice. AIBHS students will become highly proficient in developing, validating, and deploying advanced AI technologies in real-world translational biomedical applications and clinical environments. The program will promote vertically integrated AI approaches that produce more meaningful and applicable results that directly benefit patients, the healthcare system, and society.

AIBHS is committed to equipping students with the knowledge, skills, and tools needed to leverage AI's potential in translational biomedical applications and clinical care, including diagnostics, therapeutics, personalized medicine, and healthcare management. Students will learn to design and implement trustworthy AI architectures in diverse domains, such as generative AI, large language models, electronic health records, wearable devices, and medical imaging. Additionally, they will integrate various types of data to advance clinical research and improve clinical decision-making.

AIBHS's interdisciplinary curriculum integrates machine learning fundamentals with biomedical research, medical practice, and clinical workflows. Students will take courses spanning various disciplines, including biomedicine, clinical medicine, bioinformatics, computer science, engineering, applied mathematics, and ethics. Coursework will also include esteemed UF faculty-led rotations in basic biomedical laboratories and clinical rotations in leading UF Health hospitals. Such interdisciplinary training will foster a holistic understanding of AI and its application to basic sciences and clinical sciences, empowering students to leverage AI to advance both.

AIBHS's interdisciplinary program extends beyond technical and biomedical learning. In addition to training in the responsible conduct of research in medicine, AIBHS students will be explicitly instructed in trustworthy AI. Specifically, students will learn about AI's economic, social, legal, and ethical implications and how to navigate potential risks such as biases in datasets, threats to privacy and confidentiality, disparate health outcomes for already marginalized groups, and other dangers to society's well-being. Additional interdisciplinary aspects of AIBHS include dual primary mentorship and signature design studios.

Because cohesive understanding and innovative prowess are best honed through experiential learning, AIBHS offers significant hands-on learning opportunities through its signature design studios. In the AI Design Studios, students are guided by domain experts through the design and application of end-to-end trustworthy ML systems dedicated to resolving real-world medical problems fairly. The Clinical Design Studios offer students direct experience in clinical settings or biomedical research labs through rotations with faculty. Students will experience a variety of contexts, including hospital rotations and basic science laboratories, enabling them to deeply engage with biomedical research and understand the medical system.

AIBHS provides students with a nuanced, integrated understanding of clinical and biomedical research contexts, two domains traditionally treated separately. This non-traditional amalgamation enables AIBHS students to view biomedical advancements and clinical care holistically, thereby positioning them to translate those discoveries into concrete benefits to patient care. The translational power of a cohesive understanding of both basic biomedical research and clinical research, coupled with a deep understanding of how to design, develop, and implement trustworthy AI, ideally positions AIBHS students to translate their research into direct optimizations of equitable healthcare delivery, patient care, and patient outcomes.

Graduates of the Artificial Intelligence in Biomedical and Health Science (AIBHS) M.S. program stand at the intersection of cutting-edge AI technology and personalized healthcare, forging diverse and impactful career paths. Equipped with comprehensive skills in developing and deploying AI technologies in translational biomedical applications and clinical settings, they can pursue roles as AI specialists in healthcare institutions, contributing to the development of diagnostics, therapeutics, and personalized medicine. With expertise in designing trustworthy AI architectures across various domains, such as medical imaging, wearable devices, and electronic health records, graduates are well-suited for roles in research and development, healthcare management, and innovative startups focused on revolutionizing healthcare through AI. Their interdisciplinary training, integrating machine learning, biomedical research, and clinical practice, prepares them for positions spanning academia, industry, and healthcare, driving advancements that directly benefit patients and society. Moreover, their understanding of ethical implications and responsible AI practices positions them as ethical leaders and advocates, essential to navigating challenges related to bias, privacy, and societal well-being in AI-driven healthcare advancements. Ultimately, AIBHS graduates possess a holistic understanding of biomedical research and clinical care, enabling them to transform discoveries into tangible improvements in healthcare delivery and patient outcomes.

B. If the proposed program qualifies as a Program of Strategic Emphasis, as described in the Florida Board of Governors 2025 System Strategic Plan, indicate the category.

- **Critical Workforce**
  - ☐ Education
  - ☒ Health
  - ☐ Gap Analysis
- **Economic Development**
  - ☐ Global Competitiveness
  - ☐ Science, Technology, Engineering, and Math (STEM)

☐ **Does not qualify as a Program of Strategic Emphasis.**

Given the centrality of AI to this program, it is also a STEM program.

II. Strategic Plan Alignment, Projected Benefits, and Institutional Mission and Strength

A. Describe how the proposed program directly or indirectly supports the following:

- **System strategic planning goals (see the link to the 2025 System Strategic Plan on the New Program Proposals & Resources webpage)**
- **the institution's mission**
- **the institution's strategic plan**

Florida's State University System (SUS), the University of Florida (UF), and UF's College of Medicine (COM) are committed to providing unsurpassed teaching, research, and public service. Artificial Intelligence in Biomedical and Health Sciences (AIBHS), a Health program that qualifies as a Program of Strategic Emphasis, will do just that by satisfying many of the 2025 system strategic planning goals.

Teaching and learning
AIBHS will increase the number of degrees awarded in programs of strategic emphasis and provide top-talent students, both in-state and out-of-state, an opportunity to develop sought-after skills here in Florida. It will also strengthen the quality and reputation of COM, UF, and the SUS more generally by being at the forefront of the intersection of AI and clinical health sciences - a nascent domain with exceptional translational promise.

Scholarship, Research, and Innovation
AIBHS scholars, students, and faculty will pioneer an emerging field, ideally positioning them to produce innovative research and scientific breakthroughs, which will directly improve patient care and health outcomes, attract external funding, and promote industry.

Community and Business engagement
Life Sciences and Information Technology are two of Florida's strongest and fastest-growing economic sectors.* Working at the intersection of these, AIBHS scholars will have a nuanced understanding of how to use AI to advance biomedical and clinical sciences. These top-talent graduates will be a boon to Florida's workforce and help industry meet its challenges and to grow. This, in turn, will advance the biological sciences, ultimately benefiting public health.

In addition to advancing UF's strategic mission, AIBHS will also help UF satisfy the objectives of its AI initiative, viz., to be a national leader in artificial intelligence and elevate its impact on research, teaching, and economic development.
*https://www.enterpriseflorida.com/industries/
**https://news.ufl.edu/2020/07/nvidia-partnership/

B. Describe how the proposed program specifically relates to existing institutional strengths. This can include:

- **existing related academic programs**
- **existing programs of strategic emphasis**
- **institutes and centers**
- **other strengths of the institution**

The proposed M.S. program will be housed in IC^3, the Intelligent Clinical Care Center, in UF's College of Medicine's Department of Medicine (DoM), an existing health program of strategic emphasis. AIBHS will be co-located in Gainesville and Jacksonville, allowing students with different learning styles and circumstances to choose the style and location that works best for them.

The AIBHS program will allow collaboration with and strengthen existing academic programs, including Medicine (in Gainesville and Jacksonville), Pharmacology and Therapeutics, Neuroscience, Health Outcomes and Biomedical Informatics (HOBI), and the graduate programs in Computer & Information Science & Engineering (CISE), Biomedical Engineering (BME), and the Electrical & Computer Engineering (ECE). One important difference, however, between HOBI, CISE, BME, and ECE programs and AIBHS, our proposed program, is that the former target a more technical student demographic than our more inclusive AIBHS program, which encourages enrollment of students from non-technical backgrounds as well as non-traditional graduate students, such as those already in the workforce.

AIBHS will also leverage the resources available by the following existing centers and institutions: Intelligent Critical Care Center (IC3), UF Health Jacksonville, McKnight Brain Institute, Center For Spatial Biomolecule Research, UF Diabetes Institute, Molecular Pathology Core, Clinical and Translational Science Institute, Center for Genetic Epidemiology and Bioinformatics, and the UF Scripps Institute for Biomedical Innovation & Technology, amongst others in order to promote synergistic research and innovation.

Another strength at the University of Florida that will make this program a success is HiPerGator, a high-performance computing cluster.

C. Provide the date the pre-proposal was presented to the Council of Academic Vice Presidents Academic Program Coordination (CAVP ACG). Specify any concerns raised and provide a narrative explaining how each concern has been or will be addressed.

The pre-proposal was presented to and approved by the Council of Academic Vice Presidents Academic Program Coordination on September 13, 2023. No concerns were raised.

D. In the table below provide an overview of the institutional planning and approval process leading up to the submission of this proposal to the Board office. Include a chronology of all activities, providing the names and positions of university personnel and external individuals who participated.

- **If the proposed program is at the bachelor's level, provide the date the program was entered into the APPRiSe system, and, if applicable, provide a narrative responding to any comments received through APPRiSe.**
- **If the proposed program is a doctoral-level program, provide the date(s) of the external consultant's review in the planning table. Include the external consultant's report and the institution's responses to the report as Appendix B.**

Planning Process

Date	Participants	Planning Activity Description
Summer 2023	Dr. Azra Bihorac, MD, MS FCCM: Program director, Senior Associate Dean for Research at UF's COM; Professor of Medicine, Surgery, and Anesthesiology; Director, Intelligent Critical Care Center Dr. Benjamin Shickel, PhD: Division of Nephrology, Hypertension & Renal Transplantation, Department of Medicine Dr. Wei Shao, PhD: Division of Nephrology, Hypertension & Renal Transplantation, Department of Medicine Dr. Elizabeth Palmer, PhD: Assistant Director of Research training and Workforce Development, COM, Office of Research Advisory Committee members: Drs. Pinaki Sarder, PhD and Ramon Sun, PhD	Program Development
August 18, 2023	Dean of the College of Medicine, Dr. Colleen Koch	COM Dean supports the M.S./Ph.D program
September 2023	Assistant Provost Dr. Cheryl Gater	The pre-proposal is approved by the Council of Academic Vice Presidents
Fall 2023-Spring 2024	Drs. Azra Bihorac, Benjamin Shickel, Wei Shao, and Elizabeth Palmer	Proposal work. Discussion with Kurt Dudas and others about co-locating the program in Gainesville and Jacksonville
March 2024	Drs. Azra Bihorac, Benjamin Shickel, Wei Shao, and Elizabeth Palmer	Finalizing proposal and submission

E. In the table below, provide a timetable of key events necessary for implementing the proposed program following approval of the program by the Board office or the Board of Governors through to the addition of the program to the State University System Academic Degree Program Inventory.

Events Leading to Implementation

Date	Implementation Activity
Spring 2024	Submit new course requests
Summer 2024	Marketing/advertising strategy
Fall 2024	Implement administrative, marketing, and advertising structure
Spring 2025	Active student recruitment
Summer 2025	Active student recruitment and enrollment
Fall 2025	Welcome inaugural incoming class

Institutional and State-Level Accountability
III. Need and Demand

A. Describe the workforce need for the proposed program. The response should, at a minimum, include the following:

- **current state workforce data as provided by Florida's Department of Economic Opportunity**
- **current national workforce data as provided by the U.S. Department of Labor's Bureau of Labor Statistics**
- **requests for the proposed program from agencies or industries in the university's service area**
- **any specific needs for research and service that the program would fulfill**

National and Florida Workforce Demand

In the table below, provide occupational linkages or jobs graduates will be qualified to perform based on the training provided for the proposed program that does not currently appear in the most recent version of the Search by CIP or SOC Employment Projections Data Tool provided periodically by Board staff.

Occupational Linkages for the Proposed Program

SOC Code (XX-XXXX)	Occupation Title	Source / Reason for Inclusion
27-3042	Technical Writer	AIBHS graduates will have scientific writing experience
15-2051	Data Scientist	Numerous Linkedin job advertisements for data scientists show advanced AI training as a minimum or preferred qualification. AIBHS students will be trained in the design, implementation, and development of cutting-edge AI systems.
11-9111	Medical and Health Services Managers	This position often recruits those with extensive backgrounds in health informatics and clinical experience,* which AIBHS graduates will have
15-1243	Database Architects	LinkedIn shows numerous positions for this category for which AIBHS graduates would qualify.
17-2031	Bioengineers and Biomedical Engineers	This position involves applying knowledge of engineering, biology, and computer science to the design and development of health systems and products. AIBHS students will learn those skills from our AI courses and our studio design.

* https://www.bls.gov/ooh/management/medical-and-health-services-managers.htm#tab-4

Complete the table below and summarize its contents in narrative form. Include data for all linked occupations, including those in the table above. Use data from the Search by CIP or SOC Employment Projections Data Tool provided periodically by Board staff.

Labor Market Demand, CIP Code 51.2706

Occupations	Percent Change in Job Openings		Annual Average Job Openings		Total # of New Jobs		Education Level Needed for Entry
	FL 2022-30	U.S. 2022-32	FL 2022-30	U.S. 2022-32	FL 2022-30	U.S. 2022-32	
Computer and Information Research Scientists 15-1221	23.7	23	144	3,400	322	8,300	Masters/PhD
Computer Occupations, All Other 15-1299	7.6	9.7	1,160	33,500	1046	43,800	Bachelors; FL: Post Secondary
Postsecondary Teachers, All Other 25-1199	11.8	8	2,167	118,000	2,284	108,100	PhD/Masters
Health Information Technologists and Medical Registrars 29-9021*	N/A	16	N/A	3,100	N/A	6,200	Associates

Sources:
Date Retrieved: 12/06/2023
U.S. Bureau of Labor Statistics - https://data.bls.gov/projections/occupationProj
Florida Department of Economic Opportunity - http://www.floridajobs.org/labor-market-information/data-center/statistical-programs/employment-projections
*SOC code 29-9021 is not listed in the Employment Projection Data spreadsheet found at https://www.floridajobs.org/economic-data/employment-projections. I was unable to find reliable Florida employment projection data for this position.

As the data from the Florida Department of Economic Opportunity and the U.S. Bureau of Labor statistics show, myriad jobs are open to those with the qualifications the proposed program will cultivate in its graduates. Because AIBHS graduates will have extensive knowledge of AI, computer modeling, and biomedical environments, they're well equipped to take positions in each of those fields, as well as positions at their intersections.

Furthermore, many of these positions are well-paid, as shown in the table below. The median annual salary in Florida is $61,777 (https://www.census.gov/quickfacts/fact/table/FL/INC110221). Median annual salaries for the positions noted above range from $56,840-$128,950 in Florida, and the average median salary for these positions collectively is $95,070 – well above the state median. Thus, there is good reason to believe that AIBHS graduates will be strong contributors to the state economy.

According to the U.S Department of Labor's Bureau of Labor Statistics and also shown in the table below, all professions associated with our proposed program, AIBHS, are growing at faster than average rates, especially here in Florida. Although the table above shows that a bachelor's degree is formally required for an entry level position in some of the relevant fields, an advanced degree, such as an M.S., is required in practice and *significantly* increases one's competitiveness and earning potential. This is especially the case for positions in fields that have higher median salaries, such as Data Science, Computer and Information Research Science, Biomedical Engineering, and Medical and Health Service management.

Job Opportunities for AIBHS Graduates*

SOC	Occupation	Median FL Salary	Projected FL growth 2022-30	Median National salary	Projected National growth 2021-31
15-1221	Computer and Information Research Scientists	114,590[1]	23.7%[2]	136,620[3]	23% (much faster than average)[3]
15-1299	Computer Occupations, All Other	88,150[1]	7.6%[2] 15%[4]	98,740[5]	10% (faster than average)[5]
15-2051	Data Scientists	100,520[1]	31.4%[2]	103,500[6]	35% (much faster than average growth)[6]
29-9021	Health Information Technologists and Medical Registrars	56,840[1]	N/A	58,250[7]	16% (much faster than average)[7]
27-3042	Technical Writer	76,250[1]	15%[2]	79,960[8]	7% (faster than average)[8]
11-9111	Medical and Health Services Managers	101,700[1]	N/A	104,830[9]	28% (much faster than average)[9]
15-1243	Database Architects	128,950[1]	9.4%[2]	112,120[10]	8% (faster than average)[10]
17-2031	Bioengineers and Biomedical Engineers	93,560[1]	13.1%[2]	99,550[11]	5% (faster than average)[11]

*Please see Appendix K for sources

Agency and industry calls

In addition to the data from Florida's Department of Economic Opportunity and the U.S. Bureau of Labor Statistics showing the demand for skills that graduates of the proposed AIBHS will have, agencies and industry are also calling for the same. For instance, in 2020, the Centers for Medicare and Medicaid Services held a competition with specific challenges to develop machine learning and deep learning

tools for the clinic. Also in 2020, the NSF, in partnership with the NIH, launched Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science (SCH), a program granting 10-16 awards per year of $1.2 million dollars to successful PIs proposing high risk, high reward research developing novel intelligent methods to "collect, sense, connect, analyze and interpret data from individuals, devices and systems to enable discovery and optimize health" (https://www.nsf.gov/pubs/2021/nsf21530/nsf21530.htm). In 2022, the NIH launched a new Common Fund program called Bridge2AI to expand the use of AI in biomedical and behavioral research, investing $130M over 4 years.

Specific Needs for Research and Service

There are gaps in the healthcare industry where AI could be integrated to improve diagnostics, therapeutics, personalized medicine, healthcare management, and clinical decision-making. The program aims to fulfill the need for professionals capable of bridging these gaps and developing innovative solutions.

B. Provide and describe data that support student demand for the proposed program. Include questions asked, results, and other communications with prospective students.

The rapid growth of AI has accelerated discoveries across diverse scientific fields* and permeated almost every type of work environment. It is projected that 40% of the global workforce will have to be upskilled in the next three years.** The biomedical, behavioral, and clinical sciences are prime for AI integration in every aspect of research and practice. Yet widespread integration of AI remains halted by, among other factors, an insufficiently skilled workforce for domain-specific AI applications in research. Many domain experts lack the foundational understanding of AI systems and methodologies, and opportunities for rapid AI training for research are limited. The two strategic NIH Common Fund Programs, AIM Ahead and Bridge2AI, recognize an unmet need for innovative approaches for research training in AI to address the critical need for an AI-ready research workforce for biomedical, behavioral, and clinical sciences.

Furthermore, the demand for expanded AI education and hands-on experience among UF medical students is high, and current training gaps would be adequately addressed by the AIBHS degree program. This demand is evidenced by extracurricular activities involving AI that have formed in response to the lack of suitable AI education, including the student-run "AI Interest Group," the newly formed "AI in Medicine" track of the Discovery Pathways Program, the high volume of Medical Student Research Program (MSRP) students who match to AI-based mentors, and the popularity of numerous in-person AI training workshops at the UF College of Medicine.

* Chaudhuri K, Varma A, Malik A, editors. Artificial Intelligence as an antidote for managing people in organizations: How realistic. British Academy of Management Conference; 2020.
Chen X, Zou D, Xie H, Cheng G, Liu C. Two decades of artificial intelligence in education. Educational Technology & Society. 2022;25(1):28-47.
Miller T. Explanation in artificial intelligence: Insights from the social sciences. Artificial intelligence. 2019;267:1-38.
Xu Y, Liu X, Cao X, Huang C, Liu E, Qian S, Liu X, Wu Y, Dong F, Qiu C-W. Artificial intelligence: A powerful paradigm for scientific research. The Innovation. 2021;2(4).
Zhao X. AI in Civil Engineering. AI in Civil Engineering. 2022;1(1):1.
** Hancock B, Lazaroff-Puck K, Rutherford S. Getting practical about the future of work. McKinsey Quarterly. 2020;1:65-73.

C. Complete Appendix A – Table 1 (1-A for undergraduate and 1-B for graduate) with projected student headcount (HC) and full-time equivalents (FTE).

- **Undergraduate FTE must be calculated based on 30 credit hours per year**
- **Graduate FTE must be calculated based on 24 credit hours per year**

In the space below, explain the enrollment projections. If students within the institution are expected to change academic programs to enroll in the proposed program, describe the anticipated enrollment shifts and impact on enrollment in other programs.

We expect to attract professionals working in biomedical fields in and out of the state of Florida as well as students with B.S. degrees, including those simultaneously pursuing other degrees, especially medical professional degrees. We do not anticipate any students transferring from other graduate programs at UF. Enrollment in the 1 ½ year M.S. program is expected to start at 20 students in Year 1 and to increase to 100 students in Year 5. Because AI programs are in high demand, and we will offer hybrid courses (synchronous online and face-to-face) in Gainesville and Jacksonville, a major metropolitan area, we believe that our enrollment projections are reasonable. For a market analysis, see Appendix M.

D. Describe the anticipated benefits of the proposed program to the university, local community, and the state. The benefits of the program should be described both quantitatively and qualitatively.

Benefits to the University:

AIBHS' explicit focus on ensuring that its students are well-positioned to advance translational biomedical research and practice, as well as its focus on AI, will benefit the university tremendously.

UF is already committed to translational medicine. This program furthers that commitment by leveraging the power of AI, which distinguishes it from other programs. Students will learn to design, develop, and implement trustworthy cutting-edge AI architecture, exponentially accelerating translational research and directly improving health management, processes, and delivery, as well as patient outcomes. Students concurrently pursuing an advanced medical degree alongside the AIBHS M.S. will be able to utilize their AIBHS training in practice to improve care and outcomes for patients directly.

Such a technologically cutting-edge program that promises to directly improve people's well-being will attract high-caliber students from both the state and the nation to the university. Not only will traditional high-quality graduate students be attracted to the program, but students pursuing advanced medical degrees, such as the M.D., will be attracted to UF by the possibility of earning an AIBHS M.S. degree to complement their medical training.

AIBHS will also foster collaborations between departments and colleges, promoting innovative research at the intersections of translational biomedical science, clinical science, computer science, and engineering.

Ultimately, AIBHS will advance UF's AI initiative and further enhance UF's reputation as an institution dedicated to improving the lives of Floridians.

Benefits to the local community:

This program will yield concrete health benefits for the local community. AIBHS will equip students with the knowledge, skills, and tools needed to leverage AI's potential in translational biomedical applications

and clinical care, including diagnostics, therapeutics, personalized medicine, and healthcare management. Students will learn to design and implement various trustworthy AI architectures in domains such as generative AI, large language models, electronic health records, wearable devices, and medical imaging, as well as to integrate various types of data in order to advance research and to improve clinical decision-making. As a result, AIBHS graduates will be uniquely positioned to rapidly accelerate translational biomedical research, precision medicine, health management, processes, and delivery, as well as to improve patient care.

Moreover, AIBHS will benefit local businesses. There are numerous biotech companies located in Alachua County, Florida, including, among others, RTI Surgical and Resilience. On a randomly selected day, 10/27/2023, both had job openings available for those with graduate training of the sort AIBHS will provide, with salaries ranging from $115,000-$173,000. Similarly, on 3/6/2024, a random search through LinkedIn for 'AI' jobs in Jacksonville produced over 20 pages of opportunities. Of the 5 pages I looked through, I found 13 positions AIBHS students would be well qualified for, with salaries ranging from $80,000-$188,000. Among others, open positions include a directorship for the American Cancer Society's National Health Tech AI Initiative and a directorship for eClinical Solutions' Product Management AI/ML Initiative. This suggests that Alachua County, as well as Jacksonville, would benefit from a program that produces experts in the design, implementation, and use of AI to advance biomedical research and improve clinical practice.

Benefits to the state of Florida:
In addition to concrete improvements to the healthcare system and patient care as well as the workforce contributions AIBHS would make through its production of highly skilled graduates in demanding and rapidly growing fields, [see table Job Opportunities for AIBHS Graduates in section III. As mentioned above], AIBHS holds the potential to generate new startup ventures that would create jobs.

Moreover, a UF survey showed that 42% of UF undergraduates pursue graduate school. Among them, most pursue advanced degrees in "Health Professions and Related Clinical Sciences," followed by Engineering, Business Management, and Biological and Biomedical Sciences. Of these students, 65% attend graduate school in Florida. We want to increase this rate by offering additional incentives for these students to continue studying, living, and practicing their professions in Florida. We achieve this goal by offering a rigorous program in a field they are already drawn to (https://career.ufl.edu/gain-experience/student-outcomes/).

E. If other public or private institutions in Florida have similar programs at the four- or six-digit CIP Code or in other CIP Codes where 60 percent of the coursework is comparable, identify the institution(s) and geographic location(s). Summarize the outcome(s) of communication with appropriate personnel (e.g., department chairs, program coordinators, deans) at those institutions regarding the potential impact on their enrollment and opportunities for possible collaboration in the areas of instruction and research.

Programs in the SUS with CIP code 51.2706 substantially differ from the one proposed here. There are three: FIU's M.S. in Health Informatics and Analytics, UNF's M.S. in Health Informatics, and USF's M.S. in Health Informatics. First, these programs are primarily online: FIU's and USF's programs are entirely online, and UNF's is primarily online. Although AIBHS will have an online component, we will also offer both synchronized hybrid and face-to-face courses. Second, these programs do not include robust AI training as part of their curriculum, while AIBHS is an AI program involving in-depth training in AI and its applications to translational biomedical research and clinical contexts. Third, and relatedly, FIU's, UNF's, and USF's programs are geared more towards training students in healthcare informatics for healthcare

management (indeed, FIU's is offered through its business school). AIBHS graduates will receive training in healthcare management, delivery, and processes, but the focus of the program is to enable students to use all tools at their disposal, especially AI architectures, to improve such workflows, to advance translational biomedical research, and to have a direct beneficial impact on clinical practice.

The proposed AIBHS is the first of its kind in the state of Florida. First, AIBHS is an **applied AI program** in the clinical and biomedical sciences. As such, its curriculum integrates training in AI design, development, and implementation into *each* of its courses. Second, AIBHS is an **interdisciplinary** program that integrates coursework spanning a variety of disciplines, including biomedicine, clinical medicine, bioinformatics, computer science, engineering, and applied mathematics, as well as explicit training in the social, economic, legal, and ethical implications of AI. Students will also have dual mentors: a technical AI expert and a clinical expert. Third, AIBHS makes **experiential learning** a central part of its curriculum. Each semester, students will take courses where they practice developing and testing various AI tools while being immersed in biomedical or clinical environments, ensuring that they have both the theoretical knowledge and the practical skills needed to effectively implement AI in real-world biomedical and clinical contexts.

F. If the proposed program substantially duplicates a program at Florida Agricultural and Mechanical University (FAMU), a letter of support from FAMU must be provided. The letter must address whether the proposed program may adversely affect FAMU's ability to achieve or maintain student diversity in its existing program. The institution's Equal Opportunity Officer shall review this section of the proposal, sign, and date the additional signature page to indicate that all requirements of this section have been completed.

Not Applicable: FAMU doesn't have a comparable program.

IV. Curriculum

A. Describe all admission standards and all graduation requirements for the program. Hyperlinks to institutional websites may be used to supplement the information provided in this subsection; however, these links may not serve as a standalone response. For graduation requirements, describe any additional requirements that do not appear in the program of study (e.g., milestones, academic engagement, publication requirements).

The graduate program in AIBHS aims to train professionals in leveraging trustworthy AI techniques for innovative solutions for biomedical research, healthcare analytics, and precision medicine. The AIBHS program seeks to enroll students who demonstrate a blend of academic excellence, leadership capabilities, and unwavering determination. It welcomes candidates with diverse backgrounds, including medical students and students in fields like biological or medical sciences, biostatistics, bioinformatics, biomedical engineering, and computer science. Ideal applicants include students pursuing professional medical degrees such as an M.D., those with undergraduate degrees in biology, chemistry, microbiology, biostatistics, or engineering, or those with strong computing skills. Additionally, students working toward a Ph.D. in areas such as cell biology, neuroscience, and biostatistics may also find that this program aligns well with their academic and professional goals, offering a unique opportunity to receive concrete clinical AI training capable of accelerating research and improving clinical processes and outcomes.

Admission Standards

To be admitted into the M.S. in AIBHS, candidates must graduate from an accredited baccalaureate program with either a B.S. in a relevant discipline or demonstrate academic and research excellence through work in multidisciplinary courses. While not mandatory, a strong background in either biomedical sciences, preferably with clinical experience, or computing, evidenced by proficiency in modern programming languages such as Python or R, is highly desirable. In addition to these criteria, all applicants must meet the following requirements:

GPA: Minimum of 3.0
GRE: Waived

Admission criteria into the AIBHS M.S. program following enrollment in or completion of a professional medical degree, such as an M.D. or an M.S. in another discipline, remain the same as for students entering the program with a baccalaureate degree.

International applicants are exempt from the English proficiency requirement after completing one academic year at a recognized, regionally accredited university or college in a country where English is the official language. Students will have to meet all requirements of the University of Florida Graduate School Admissions and the following requirements:

TOEFL: 550 on paper-based; (213 on computer-based; 80 on Internet-based)
TOEFL may be substituted with IELTS: 6 or MELAB: 77

Transfer of credits from another institution or program to count towards the AIBHS the MS degree is only accepted "under case-by-case circumstances and assessments" through a formal petition process. Acceptance of credit transfer requires the approval of the AIBHS committee and the Dean of the Graduate School. Furthermore, this process will be subject to the limits and conditions set forth by the UF Graduate School and the College of Medicine. Petitions for transfer of credit should be made during the student's first term of enrollment in the AIBHS program. Only graduate-level (5000-7999) work earned with a grade of A, A-, B+, or B is eligible for transfer of credit. In accordance with UF's Graduate School policy, no more than 15 transfer credits towards the M.S. are allowed, and "[t]hese can include no more than 9 credits from institution/s approved by UF, with the balance obtained from postbaccalaureate work at the University of Florida." (https://gradcatalog.ufl.edu/graduate/degrees/).

Graduation Requirements

The appropriate grade point requirements for graduation are:

1. A minimum grade of 3.00 (B or higher) in each core course
2. An overall GPA of 3.00 or higher across all elective courses

Successful completion of the M.S. requires that a student either successfully completes an oral final examination, a capstone project, or a Master's thesis, which includes a successful defense.

Final Oral Examination:

Students pursuing the final oral examination option for completing the M.S. are expected to take and pass the exam in the semester at the end of which they plan to graduate. The pass/fail oral examination is comprehensive and will be administered by 2-3 faculty members of IC^3, who will be selected by the graduate committee.

Capstone Project:

The capstone project will be designed in consultation with the student's supervisory chair and will demonstrate mastery of an agreed-upon topic in the area.

Proposal: Students will be required to develop and submit a proposal for their capstone research project. This should outline the project's objectives, methodology, expected outcomes, and timeline.

Conducting the Research: Over the course of the project, students are expected to rigorously conduct the research outlined in their proposal, which includes collecting and analyzing clinical data, developing and refining AI models, and carefully interpreting and validating results.

Final Report: Upon completion of the research, students must prepare a comprehensive written report; discussing the research question, methods used, results obtained, and the significance of the findings may be required to defend their project in an oral examination.

Master's Thesis:
Students pursuing the thesis option must initiate a supervisory committee of faculty members, which must be established by the end of year 1 Spring semester. "The supervisory committee for a master's degree with a thesis should consist of at least three Graduate Faculty members unless otherwise specified. Each master's thesis candidate must prepare and present a thesis that shows independent investigation. It must be acceptable, in form and content, to the supervisory committee and to the Graduate School. The work must be of publishable quality and must be in a form suitable for publication, guided by the Graduate School's format requirements." For more on graduate school requirements, see https://gradcatalog.ufl.edu/graduate/degrees/.

B. Describe the specific expected student learning outcomes associated with the proposed program and include strategies for assessing the proposed program's learning outcomes. If the proposed program is a baccalaureate degree, include a hyperlink to the published Academic Learning Compact and the document itself as Appendix C.

Expected student learning outcomes associated with the Artificial Intelligence in Biomedical and Health Sciences (AIBHS) and strategies for assessing them are listed below.

Learning Outcomes

1. Technical Proficiency in AI: Demonstrate proficiency in designing, implementing, and validating state-of-the-art AI technologies for biomedical applications. This outcome will be assessed through coursework assignments, projects, and evaluations in core AI courses.
2. Integration of AI with Biomedical Research: Integrate AI methodologies with biomedical research and clinical practices. This outcome will be assessed through evaluations of experiential learning courses and rotations in labs and assessments of the application of AI methodologies in solving real-world medical problems.
3. Interdisciplinary Understanding: Display a holistic understanding of AI's applications in biomedical and clinical sciences. This outcome will be assessed through evaluations of interdisciplinary coursework and projects that combine biomedicine, AI, ethics, and instruments measuring the depth of understanding through case studies or comprehensive exams.
4. Ethical and Responsible AI Implementation: Demonstrate awareness of ethical, legal, and societal implications of AI in healthcare. This outcome will be assessed through evaluations of coursework on ethical implications and the student's ability to identify and address ethical challenges in AI implementation.
5. Clinical Exposure and Application of AI: Apply AI in clinical settings effectively. This outcome will be assessed by course performance in Clinical AI Design studios and rotations in clinical labs and healthcare settings, including the evaluations of the impact of AI solutions on patient care through case studies or reports.
6. Dual Primary Mentorship Understanding: Benefit from dual mentorship in both clinical and technical domains. This outcome will be assessed by gathering feedback from mentors and students about the effectiveness of the dual mentorship model in guiding research and overall learning.

Cross-cutting assessment strategies:

1. Project-based Assessments: Evaluate student projects in AI Design Studios and Clinical AI Design Studios for innovation, application, and impact.
2. Exams and Assignments: Assess understanding of AI fundamentals, ethical implications, and biomedical applications through exams and assignments in core and elective courses.
3. Mentor Feedback: Obtain feedback from mentors regarding students' progress, adaptability, and interdisciplinary learning.
4. Peer and Self-Evaluations: Encourage self-assessment and peer reviews of project work, fostering critical evaluation skills and teamwork.

We will align these assessment strategies with the program's learning objectives and provide a comprehensive evaluation of students' knowledge, skills, and application abilities within the AI and biomedical intersection. We will regularly review and refine assessment strategies to ensure the program's continuous improvement and alignment with evolving needs.

C. If the proposed program is an AS-to-BS capstone, provide evidence that it adheres to the guidelines approved by the Articulation Coordinating Committee for such programs, as outlined in State Board of Education Rule 6A-10.024. Additionally, list any prerequisites and identify the specific AS degrees that may transfer into the proposed program.

☒ Not applicable to this program because it is not an AS-to-BS Capstone.

D. Describe the curricular framework for the proposed program, including the following information where applicable:

- **total number of semester credit hours for the degree**
- **number of credit hours for each course**
- **required courses, restricted electives, and unrestricted electives**
- **a sequenced course of study for all majors, concentrations, tracks, or areas of emphasis**

The proposed AIBHS M.S. is a 30-credit-hour program consisting of a set of four core courses (11 credit hours), four experiential learning courses (10 credit hours), and 3 electives (9 credit hours). All courses are letter graded, and the courses listed below will be administered through the Intelligent Clinical Care Center, IC^3, home of the AIBHS program. To complete the program, a student must also pass a final oral examination, submit a passing capstone project, or submit and successfully defend a master's thesis.

The 4 required core courses (11 credits) are:

- CAI 5XXX Fundamentals of AI in Medicine I (3 credits) [course request 19996]
- CAI 5XXX Fundamentals of AI in Medicine II (3 credits) [course request 19997]
- CAI 5XXX Biostatistics for AI (2 credits) [course request 20019]
- CAI 5XXX AI Ethics and Alignment in Health (3 credits) [course request 19995]

The 4 required experiential learning courses (10 credits) are:

- CAI 5XXX AI in Health Design Studio I (1 credit) [course request 19998]
- CAI 5XXX AI in Health Design Studio II (3 credits) [course request 19999]
- CAI 6XXX Clinical AI Design Studio I (3 credits) [course request 20000]

- CAI 6XXX Clinical AI Design Studio II (3 credits) [course request 20017]

Students must also earn 9 credit hours total in electives.
Of the 4 electives (12 credits) listed below, students must take 6 credit hours:

- CAI 5XXX AI in Medical Image Analysis (3 credits) [course request 20018]
- CAI 6XXX Applied Generative AI in Medicine (3 credits) [course request 20023]
- CAI 5XXX AI for Clinical Decision Support (3 credits) [course request 20020]
- CAI 5XXX AI-Powered Drug Discovery (3 credits) [course request 20022]

Students may choose to earn the remaining three elective credit hours by taking:

- CAI 6XXX Supervised Research in AI for Health (1-6 credits) [course request 20021]

Students interested in conducting independent research may take this course. However, only three credits of CAI 6XXX Supervised Research in AI for Health can apply toward the 30 credits required for the M.S. degree.

Course Sequence

Full-time student course sequence sample [Exam Option]

Fall Year 1 [9 credits]	Spring Year 1 [9 credits]	Summer Year 1 [3 credits]
• CAI 5XXX Fundamentals of AI in Medicine I (3) • CAI 5XXX AI in Health Design Studio I (1) • CAI 5XXX Biostatistics for AI in Medicine (2) • Elective (3) – e.g., CAI 5XXX AI in Medical Image Analysis	• CAI 5XXX Fundamentals of AI in Medicine II (3) • CAI 5XXX AI in Health Design Studio II (3) • Elective (3) – e.g. CAI 6XXX Applied Generative AI in Medicine	• CAI 6XXX Clinical AI Design Studio I (3)

Fall Year 2 [9 credits]	Spring Year 2	Summer Year 2
• CAI 6XXX Clinical AI Design Studio II (3) • CAI 5XXX AI Ethics and Alignment in Health (3) • Elective (3) – CAI 5XXX AI for Clinical Decision Support (3) **Graduation**		

Full-time student course sequence sample [Thesis/Capstone project option]

Fall Year 1 [9 credits]	Spring Year 1 [9 credits]	Summer Year 1 [3 credits]

• CAI 5XXX Fundamentals of AI in Medicine I (3) • CAI 5XXX AI in Health Design Studio I (1) • CAI 5XXX Biostatistics for AI in Medicine (2) • Elective (3) – e.g., CAI 5XXX AI in Medical Image Analysis	• CAI 5XXX Fundamentals of AI in Medicine II (3) • CAI 5XXX AI in Health Design Studio II (3) • Elective (3) – e.g., CAI 6XXX Applied Generative AI in Medicine	• CAI 6XXX Clinical AI Design Studio I (3)

Fall Year 2 [9 credits]	Spring Year 2	Summer Year 2
• CAI 6XXX Clinical AI Design Studio II (3) • CAI 5XXX AI Ethics and Alignment in Health (3) • Elective (3) – CAI 5XXX Supervised Research in AI for Health (3) **Thesis/Capstone Project** **Graduation**		

Part-time student course sequence sample [Exam option]

Fall Year 1 [4 credits]	Spring Year 1 [6 credits]	Summer Year 1 [3 credits]
• CAI 5XXX Fundamentals of AI in Medicine I (3) • CAI 5XXX AI in Health Design Studio I (1) • CAI 5XXX Biostatistics for AI (2)	• CAI 5XXX Fundamentals of AI in Medicine II (3) • CAI 5XXX AI in Health Design Studio II (3)	• CAI 6XXX Clinical AI Design Studio I (3)

Fall Year 2 [6 credits]	Spring Year 2 [3 credits]	Summer Year 2
• CAI 6XXX Clinical AI Design Studio II (3) • CAI 5XXX AI Ethics and Alignment in Health (3)	• Elective (3) – e.g. CAI 6XXX Applied Generative AI in Medicine (3)	

Fall Year 3 [5 credits]	Spring Year 3 [3 credits]	Summer Year 3
• Elective (3) – e.g. CAI 5XXX AI in Medical Image Analysis (3)	• Elective (3) – e.g., CAI 5XXX AI-Powered Drug Discovery (3) **Graduation**	

Part-time student course sequence sample [Thesis/Capstone project option]

Fall Year 1 [4 credits]	Spring Year 1 [6 credits]	Summer Year 1 [3 credits]
• CAI 5XXX Fundamentals of AI in Medicine I (3) • CAI 5XXX AI in Health Design Studio I (1) • CAI 5XXX Biostatistics for AI (2)	• CAI 5XXX Fundamentals of AI in Medicine II (3) • CAI 5XXX AI in Health Design Studio II (3)	• CAI 6XXX Clinical AI Design Studio I (3)

Fall Year 2 [6 credits]	Spring Year 2 [3 credits]	Summer Year 2
• CAI 5XXX Clinical AI Design Studio II (3) • CAI 5XXX AI Ethics and Alignment in Health (3)	• Elective (3) – e.g. CAI 6XXX Applied Generative AI in Medicine (3)	

Fall Year 3 [5 credits]	Spring Year 3 [6 credits]	Summer Year 3
• Elective (3) – e.g. CAI 5XXX AI in Medical Image Analysis (3) • Elective (3) – e.g., CAI 5XXX AI Powered Drug Discovery (3)	• Elective (3) – e.g. CAI 6XXX Supervised Research in AI for Health (3) **Thesis/Capstone project** **Graduation**	

E. Provide a brief description for each course in the proposed curriculum.

Core Course Descriptions

• **CAI 5XXX Fundamentals of AI in Medicine I** (3 credits)

This course introduces the fundamental concepts of Artificial Intelligence and Machine Learning (AI/ML) with a focus on applications in the medical field. It covers foundational AI/ML concepts, diverse medical data sources, and the complete lifecycle of AI/ML in healthcare, complemented by insights into model evaluation and ethical considerations. The course offers a mix of lectures, hands-on labs, and project work, emphasizing practical application in real-world scenarios.

* https://secure.aa.ufl.edu/Approval/reports/19996

• **CAI 5XXX Fundamentals of AI in Medicine II** (3 credits)

Building on the foundational concepts introduced in Fundamentals of Artificial Intelligence in Medicine I, this course explores deeper into Artificial Intelligence (AI), with a specific focus on deep learning and its applications in the field of medicine. Students will learn more advanced deep learning architectures, including convolutional neural networks (CNNs), recurrent neural networks (RNNs), and transformers. The curriculum emphasizes practical applications, using these technologies to analyze medical imaging, interpret clinical notes, and mine electronic health records.
*https://secure.aa.ufl.edu/Approval/reports/19997

• **CAI 5XXX Biostatistics for AI in Medicine** (2 credits)
This course highlights the crucial role of biostatistics in AI-driven medical applications. Students will master foundational biostatistical methods, design effective medical experiments, and navigate the intricacies of large biomedical datasets. Emphasizing the union of traditional biostatistics with contemporary AI techniques, the course ensures proficiency in data analysis, AI model validation, and addressing ethical challenges in medical data use. Through lectures, labs, and case studies, participants will be adept at bridging the gap between AI, medicine, and biostatistical principles.
*https://secure.aa.ufl.edu/Approval/reports/20019

• **CAI 5XXX AI Ethics and Alignment in Health** (3 credits)
This course provides an in-depth exploration of the intersection between Artificial Intelligence (AI) and society, with a focus on alignment, ethics, economic implications, and legal policy. Students will analyze the ethical dilemmas arising from AI technologies, including biases, fairness, transparency, accountability, and privacy; analyze potential economic disruptions and identify strategies for inclusive growth and equitable distribution of AI-generated benefits; examine existing and emerging legal and regulatory frameworks governing AI technologies, including data protection, intellectual property, liability, and accountability; and study policy approaches and initiatives at the national and international levels aimed at fostering responsible AI development and deployment.
*https://secure.aa.ufl.edu/Approval/reports/19995

Experiential Learning Course Descriptions

• **CAI 5XXX AI in Health Design Studio I** (1 credit)
This experiential seminar course will feature numerous faculty experts from diverse backgrounds who will guide students through more than a dozen unique real-world examples of machine learning for healthcare applications. Students will gain valuable experience in designing, developing, and deploying AI systems using contemporary tools, models, and platforms. Through a series of interactive and open-ended vignettes, rotating panels of AI and physician-scientists will guide students through the design and application of end-to-end ML systems. Faculty on the cutting-edge of medical AI research will foster an environment of innovation, creativity, and nonlinear thinking via project-based experiential learning.
*https://secure.aa.ufl.edu/Approval/reports/19998

• **CAI 5XXX AI in Health Design Studio II** (3 credits)
AI in Health Design Studio II is an experiential applied research course in which each student will propose a self-directed clinical AI research project that addresses a real-world healthcare challenge and spend the full semester building and testing their AI system. Students will be supervised by an AI faculty member as they organize, develop, evaluate, and refine their approach. This course follows the guided experiential learning and high-level overview of the clinical AI landscape presented in AI in Health Design Studio I. Students will be paired with a technical AI faculty member whose research aligns with the student's proposed project. AI in Health Design Studio II is focused on refining technical methods on retrospective datasets and will prepare students for prospective and immersive aspects of Clinical AI Design Studio I rotations.
*https://secure.aa.ufl.edu/Approval/reports/19999

• **CAI 6XXX Clinical AI Design Studio I** (3 credits)
Clinical AI Design Studio I offers an immersive learning experience for students interested in the intersection of artificial intelligence (AI) and clinical practice. Throughout the semester, students will participate in rotations, spending time working in various faculty members' labs or clinical domains. These rotations provide a unique opportunity to delve into various research domains and acquire valuable insights into ongoing clinical AI initiatives. Additionally, they provide hands-on experience and real-world exposure, informing and inspiring the implementation of AI innovations within clinical settings. Students will not only observe but may actively contribute to the work happening in these labs, acquiring practical skills related to AI development, data analysis, and clinical problem-solving. The course emphasizes understanding the clinical context, allowing students to apply AI technologies to real-world healthcare challenges. At the end of the course, students will decide who they want as their clinical advisor, informed by their experiences during rotations and their alignment with specific research interests. They will join the selected clinical advisor for **Clinical AI Design Studio II** for a more in-depth experience.
*https://secure.aa.ufl.edu/Approval/reports/20000

• **CAI 6XXX Clinical AI Design Studio II** (3 credits)
Students will embark on an immersive journey into the world of clinical artificial intelligence with Clinical AI Design Studio II. This course offers a unique, extended engagement with a faculty advisor, building upon the foundational experiences from Clinical AI Design Studio I. Students will delve into the specialized clinical domain of their advisor, gaining firsthand insights into the intricacies of patient care and medical decision-making processes. Throughout the term, students will integrate into their advisor's research lab, contributing to a significant research project. This hands-on experience is designed to enhance students' understanding of the clinical application of AI technologies. They will acquire and refine critical skills in project conceptualization, robust study design, effective study execution, and the strategic deployment of AI models within a real-world clinical setting. The course structure is tailored to foster a collaborative learning environment, with a blend of mentor-guided research, interdisciplinary teamwork, and independent study. Students will participate in regular lab meetings, engage in critical discussions on current AI research, and receive personalized mentorship to guide their project development.
*https://secure.aa.ufl.edu/Approval/reports/20017

Elective Course Descriptions

• **CAI 5XXX AI in Medical Image Analysis** (3 credits)
Medical imaging refers to technologies that visualize the interior of the human body. Over the last decades, medical imaging has become an increasingly important tool for the early diagnosis, prognosis, and treatment of various diseases. This course will focus on recent advances in artificial intelligence for medical image analysis. Topics covered in this course include (1) Basics of medical imaging, (2) Image visualization, (3) Convolutional neural networks, (4) Image classification, (5) Image segmentation, (6) Transformer networks, (7) Image registration, (8) Generative adversarial networks, (9) Image-to-image translation, (10) Image super-resolution, (11) Diffusion Models.
*https://secure.aa.ufl.edu/Approval/reports/20018

• **CAI 5XXX Applied Generative AI in Medicine** (3 credits)
This course provides a comprehensive overview of generative artificial intelligence (AI) and its applications in healthcare. Students will learn the fundamentals of generative models, including Generative Adversarial Networks (GANs), Variational Autoencoders (VAEs), and Diffusion Models. The course will also cover advanced topics such as prompt engineering, retrieval augmented generation, and the deployment of generative AI in clinical settings. Through a combination of lectures, readings, and hands-on projects, students will gain a deep understanding of how generative AI can be leveraged to improve patient care, streamline clinical workflows, and advance medical research. The course will

emphasize practical applications and use cases that do not require advanced coding or mathematical expertise.
*https://secure.aa.ufl.edu/Approval/reports/20023

• **CAI 5XXX AI for Clinical Decision Support I** (3 credits)
In this course, students will explore the current landscape of clinical artificial intelligence (AI) for augmenting patient care, including real-world deployments, promising cutting-edge research, and ethical and societal implications of current clinical AI progress. A hybrid flipped classroom/journal club structure which emphasizes peer engagement will empower students to join the ongoing conversation and become versed in the contemporary clinical AI topics that are currently shaping the field.
*https://secure.aa.ufl.edu/Approval/reports/20020

• **CAI 5XXX AI-Powered Drug Discovery** (3 credits)
This course explores the cutting-edge application of Artificial Intelligence (AI) in discovering novel compounds to be used as therapeutics. We will delve into the fundamental principles of machine learning and deep learning techniques used for virtual screening, lead optimization, and de novo molecule design. The course will also address the integration of biological data with AI models and explore the practical challenges and limitations of this approach.
*https://secure.aa.ufl.edu/Approval/reports/20022

• **CAI 5XXX Supervised Research in AI for Health** (1-6 credits)
Students will work with their primary advisor to design, develop, and complete an agreed-upon project. This course can be applied towards capstone project work or Master's Thesis work. However, only three credits of AIH YYYY Supervised Research can apply towards the 30 credits required for the M.S. degree.
*https://secure.aa.ufl.edu/Approval/reports/20021

F. For degree programs in medicine, nursing, and/or allied health sciences, identify the courses with the competencies necessary to meet the requirements in Section 1004.08, Florida Statutes. For teacher preparation programs, identify the courses with the competencies required in Section 1004.04, Florida Statutes.

☒ Not applicable to this program because the program is not a medicine, nursing, allied health sciences, or teacher preparation program.

G. Describe any potential impact on related academic programs or departments, such as an increased need for general education or common prerequisite courses or an increased need for required or elective courses outside of the proposed academic program. If the proposed program is a collaborative effort between multiple academic departments, colleges, or schools within the institution, provide letters of support or MOUs from each department, college, or school in Appendix D.

The proposed AIBHS program is unlike any other in the SUS: it will be UF College of Medicine program co-located in Gainesville and Jacksonville, its content is original, and its home in a center, as opposed to a department is ideal given the interdisciplinary nature of AI. New core, experiential learning, and elective courses will be created and taught by AI and clinical faculty in various departments. The added AI courses are especially beneficial to AI faculty and their home departments because they provide

faculty with teaching opportunities required by their appointments and needed for tenure and promotion.

We do not anticipate any negative impact on other departments. We do, however, expect a benefit, such as more AI courses being available to students. Students in other departments who are interested in AI will have the opportunity to supplement their education with our AI courses, including our AI design studios, which will offer hands-on experience designing and validating trustworthy AI tools.

AIBHS courses will be designed and taught by faculty in the College of Medicine's Departments of Medicine, Radiology, Surgery, Pediatrics, Pharmacology and Therapeutics, and Neurology, as well as the College of Pharmacy's Department of Pharmaceutical Outcomes and Policy. Please see appendix D for emails from chairs of the above-mentioned departments showing their support of AIBHS and their willingness to allow their faculty to participate in the program.

H. Identify any established or planned educational sites where the program will be offered or administered. Provide a rationale if the proposed program will only be offered or administered at a site(s) other than the main campus.

AIBHS embraces clinical sites, practicums, and didactic teaching opportunities across UF College of Medicine's multiple campuses. Indeed, we are partnering with UF Health Jacksonville to create a program spanning both UF's main campus and UF Health Jacksonville. AIBHS will be administered here in Gainesville, and courses will be offered both here and in Jacksonville.

AI is a rapidly developing field that is fundamentally changing biomedical capabilities. Yet, health professional programs, such as medical doctor programs, do not include AI in their curricula. Compounding matters is insufficient focus on clinical biomedicine in current AI programs, even biomedical AI programs. Because of this, there is an imminent need to provide rapid AI upskilling for those interested in health professions, whether they be clinical or research oriented.

Offering courses at multiple sites will enable significantly more people to pursue the M.S. in a modality most conducive to their circumstances and learning style. First, offering courses in both Gainesville and Jacksonville will make it significantly easier for those living in either area to pursue the degree. This is especially true for potential students who are already in the workforce and may be working full-time. Indeed, we expect our program to be popular among those already in the workforce who want to enhance their knowledge and career trajectories. Second, although we intend to offer a digital option for our courses, many people prefer a face-to-face learning environment. This is likely to be true, especially in our AI design studio courses, experiential learning courses focused on hands-on experience designing, implementing, and using AI tools in clinical and research settings. The ability to offer courses in Gainesville and Jacksonville will give potential students a wider ability to customize their education to their circumstances, making it easier for them to succeed.

I. Describe the anticipated mode of delivery for the proposed program (e.g., face-to-face, distance learning, hybrid). If the method(s) of delivery will require specialized services or additional financial support, describe the projected costs below and discuss how they are reflected in Appendix A – Table 3A or 3B.

We propose to use all three modes of delivery for the program: face-to-face, hybrid, and online. Students will have the option to learn didactically and experientially in person or synchronously online. Eventually, we plan to offer online courses with asynchronous content and synchronous discussion. Our goal is to build an accessible digital AI community of practice to support collective learning, training, and professional development.

J. Provide a narrative addressing the feasibility of delivering the proposed program through collaboration with other institutions, both public and private. Cite any specific queries of other institutions concerning shared courses, distance/distributed learning technologies, and joint-use facilities for research or internships.

AIBHS program directors are in continuing discussions to hammer out the partnership with UF Health Jacksonville. Given that the AIBHS program is committed to digital experiential learning communities, that many faculty have experience teaching online and hybrid courses, and the resources of both UF main campus College of Medicine and UF Health Jacksonville, including state-of-the-art clinical sites at both UF has the capacity to offer an exceptional program spanning its different campuses.

K. Describe any currently available sites for internship and/or practicum experiences. Describe any plans to seek additional sites in Years 1 through 5.

☐ Not applicable to this program because the program does not require internships or practicums.

Currently available internship or practicum sites

UF Health Shands Hospital, Gainesville: Given its focus on clinical research, this site is ideal for students interested in the medical applications of AI.

Sid Martin Biotechnology Institute, Alachua: This facility offers opportunities in biotechnological research, where AI algorithms are increasingly being applied for drug discovery.

UF Informatics Institute: Specializing in data science and computational research, the institute offers opportunities for students to engage in AI projects that can be applied to biomedical projects.

UF Innovation Hub: Aimed at fostering entrepreneurship, this site provides opportunities for students interested in the commercial aspects of AI and biomedical technologies.

Local Biotech Firms: A number of biotechnology companies around Gainesville offer internship programs that allow students to work on applied research projects.

UF Health Jacksonville: Given its focus on clinical research, this site is ideal for students interested in the medical applications of AI.

We will seek out additional internship and practicum sites, with a particular focus on Jacksonville locations, as the program grows.

V. Program Quality Indicators - Reviews and Accreditation

A. List all accreditation agencies and learned societies concerned with the proposed program. If the institution intends to seek specialized accreditation for the proposed program, as described in Board of Governors Regulation 3.006, provide a timeline for seeking specialized accreditation. If specialized accreditation will not be sought, please explain.

No specialized accreditation is needed for an M.S. degree in AIBHS. There is no accreditation agency for AI. M.S. graduates will be seeking jobs or applying to medical and doctoral programs, all of which will look for evidence of knowledge and hands-on experience in generating and analyzing genetic and genomic data, which will be provided by the M.S. program.

B. Identify all internal or external academic program reviews and/or accreditation visits for any degree programs related to the proposed program at the institution, including but not limited to programs within the academic unit(s) associated with the proposed degree program. List all recommendations from the reviews and summarize the institution's progress in implementing those recommendations.

Not applicable since this is an M.S. program.

C. For appropriate degree programs, discuss how employer-driven or industry-driven competencies were identified and incorporated into the curriculum. Additionally, indicate whether an industry or employer advisory council exists to provide input for curriculum development, student assessment, and academic-force alignment. If an advisory council is not already in place, describe any plans to develop one or other plans to ensure academic-workforce alignment.

Competencies were identified through experience on multi-institutional sponsored research projects, experience mentoring and directing students pursuing graduate degrees in engineering with a focus on machine learning and biomedical science, review of similar programs at other institutions (and determination of their strengths and weaknesses), assessment of current AI initiatives at the University of Florida, and assessment of federally sponsored research programs, such as the NIH's Bridge2AI program and the Advanced Research Projects Agency for Health (ARPA-H) program. These federally sponsored programs are designed to promote the development of innovative, "disruptive" engineering tools in healthcare.

Artificial intelligence is a rapidly evolving field, and workforce demands and requirements may shift over time. To ensure that proper academic-workforce alignment is always maintained, we will create an advisory council to monitor employer- and industry-driven competencies and recommend changes to the curriculum as needed. The advisory council will be comprised of representatives from key industry partners and collaborators across the state of Florida.

VI. Faculty Participation

A. Use Appendix A – Table 2 to identify existing and anticipated full-time faculty who will participate in the proposed program through Year 5, excluding visiting or adjunct faculty. Include the following information for each faculty member or position in Appendix A – Table 2:

- **the faculty code associated with the source of funding for the position**
- **faculty member's name**

- **the highest degree held**
- **academic discipline or specialization**
- **anticipated participation start date in the proposed program**
- **contract status (e.g., tenure, tenure-earning, or multi-year annual [MYA])**
- **contract length in months**
- **percent of annual effort that will support the proposed program (e.g., instruction, advising, supervising)**

This information should be summarized below in narrative form. Additionally, provide the curriculum vitae (CV) for each identified faculty member in Appendix I.

Because COM faculty typically have lower teaching assignments, given their research and/or clinical duties, most, if not all, AIBHS courses will be team-taught. As a result, we are approaching faculty recruitment in phases. Phase 1 faculty includes course directors, course leads, as well as a subset of the faculty that will teach and design the courses. These faculty are listed in Appendix A – Table 2.

The majority of faculty are either tenured or tenure tracked and housed in the College of Medicine's Departments of Medicine, Radiology, Surgery, Pediatrics, Pharmacology and Therapeutics, and Neurology as well as the College of Pharmacy's Department pf Pharmaceutical Outcomes and Policy. (Emails indicating support from the chairs of these departments are included in Appendix D). Participating clinical faculty have MDs, usually along with PhDs, MSs or MPHs, which is to be expected given the expertise crucial for ensuring that students in the Clinical AI Design Studios acquire the appropriate clinical background. All other instructors have PhDs.

With the guidance of course directors, we will recruit more UF faculty in phase 2 to team teach, many of whom have already expressed enthusiasm for the program in informal discussions. We will update Appendices A, D, and E to reflect additional recruitment. In the meantime, we have included a New Hire (lecturer) in Appendix A – Table 2 whose FTE will change with the participation of more existing UF faculty. Although there is sufficient interest among existing UF faculty to teach and grow AIBHS' curriculum, we recommend making a new hire in Jacksonville to increase options for students who want to attend face-to-face courses while decreasing the amount of travel required for Gainesville-based faculty.

[NB – On the advice of the Provost's Office, I have provided some biosketches instead of CVs to reduce the length of this proposal. Some of the CVs are quite long, running over 50 pages. We're happy to provide CVs, too, if you'd like.]

B. Provide specific evidence demonstrating that the academic unit(s) associated with the proposed program has been productive in teaching, research, and service. Such evidence may include trends over time for average course load, FTE productivity, student HC in major or service courses, degrees granted, external funding attracted, and other qualitative indicators of excellence (e.g., thesis, dissertation, or research supervision).

The Intelligent Clinical Care Center (IC^3) has 29 faculty members who, combined, have over 1,200 publications and more than 60 grants. In addition to numerous graduate students supervised by individual faculty members, IC^3 has developed and hosted several educational programs, including AI Bootcamps, Hackathon, and the in-development AI Passport program.

VII. Estimate of Investment

A. Use Appendix A – Table 3A or 3B to provide projected costs and associated funding sources for Year 1 and Year 5 of program operation. In narrative form, describe all projected costs and funding sources for the proposed program(s). Data for Year 1 and Year 5 should reflect snapshots in time rather than cumulative costs.

Tuition is proposed at $1,200 per credit hour for in-state and out-of-state students. We project that 20 students, including part-time and full-time, will enroll at .625 FTE collectively in Year 1, bringing tuition revenue to $360,000. Faculty will be paid their proportionate salary plus fringe for their effort. We anticipate $278,693.05 in faculty compensation in addition to a $72,618.00 administrative supplement to be paid to a faculty member acting as the academic director/graduate coordinator of the program. We also estimate an administrative program director at 1.0 FTE for $150,000, including fringe. Course development will be conducted for 6 courses at $20,000 per course for $120,000 total. Enrollment services are estimated at 16% of tuition revenue ($57,600). Finally, we estimate a Jacksonville campus overhead fee of 20% of program revenue, at $72,000 and a 10% college tax by college of medicine ($36,000). Total costs for Year 1 are thus projected at $806,911.05, leaving the program with a deficit of $447,218.

The Vice President of UF-Jacksonville will provide start-up funding in years 1, 2, and 3 to ensure the AIBHS program achieves cost recovery. It is estimated that the program will reach cost recovery status by year 4.

In Year 5, we estimate that there will be 100 part-time and full-time students enrolled at an average .625 FTE, bringing tuition revenue to $1.8 million. Faculty will be paid $330,313.26, and the academic director/graduate coordinator will receive $81,732 as an administrative supplement. Given the estimated growth of the program, we anticipate paying a 1.0 FTE program director $150,000 as well as additional administrative support an added $100,000 including fringe. Assuming a typical 3% annual raise, we expect to pay staff $265,225 in salary and fringe in year 5. That staff will take over fiscal, HR, enrollment, and marketing. We have also allotted $100,000 for non-personnel advertising/marketing fees. Finally, we estimate a Jacksonville campus overhead fee of 20% of program revenue, at $360,000 and a 10% college tax by college of medicine ($180,000). Total costs for Year 5 are thus projected at $1,472,270.46, resulting in a $327,729.54 profit for AIBHS. Tuition revenue will be reinvested to support student scholarships in year 5 in the amount of $100,000.

B. Use Appendix A – Table 4 to show how existing Education & General (E&G) funds will be reallocated to support the proposed program in Year 1. Describe each funding source identified in Appendix A – Table 4, and justify below the reallocation of resources. Describe the impact the reallocation of financial resources will have on existing programs, including any possible financial impact of a shift in faculty effort, reallocation of instructional resources, greater use of adjunct faculty and teaching assistants, and explain what steps will be taken to mitigate such impacts.

Not applicable because this is a market-rate tuition program.

C. If the institution intends to operate the program as self-supporting, market tuition rate, or establish a differentiated graduate-level tuition, as described in

Board of Governors Regulation 8.002, provide a rationale and a timeline for seeking Board of Governors' approval.

☐ Not applicable to this program because the program will not operate as self-supporting, market tuition rate, or establish a differentiated graduate-level tuition.

We propose to operate AIBHS as a market-rate tuition program. There are two reasons why we do so.

First, we propose to propose to house AIBHS in the College of Medicine's Intelligent Clinical Care Center, IC^3. IC^3's mission is to develop and provide sustainable support and leadership for transformative medical AI research, education, and clinical applications to advance patients' health in critical and acute care medicine. Its membership is interdisciplinary and includes faculty from UF's College of Medicine, Herbert Wertheim College of Engineering, College of Pharmacy, College of Public Health and Health Professions, College of Education, and the Institute of Food and Agricultural Science.

We believe that housing AIBHS in a center rather than a traditional academic unit will benefit the program and its students by providing a unique opportunity to be immersed in AI from a variety of perspectives, ensuring a deeper, more nuanced understanding than would be possible otherwise. AIBHS distinguishes itself by directly addressing a gap in specialized training. Traditional disciplines often lack a nuanced focus on biomedical and health-focused AI, while data science generally misses an emphasis on applications for translational biomedical domains and clinical settings. Indeed, to ensure trustworthy and fair development and application of AI tools towards patient care, translational research in medical AI requires a diversely trained faculty together, creating a unity of intellectual frameworks that goes beyond disciplinary boundaries.

However, because IC^3 is not a traditional academic unit, it does not yet have an appropriate administrative staff and academic support to manage the program. Staff will have to be redirected towards the AIBHS program or newly hired. Moreover, faculty from other departmental homes will be designing and creating entirely new courses for AIBHS. The majority of these faculty are AI faculty, clinical faculty, or both, who command high salaries and will need to be compensated accordingly. Compared to traditional programs, which can pay existing E&G staff and faculty self-supporting overload to support their programs, AIBHS will require additional revenue best made available through a market-rate tuition.

Second, AIBHS will span two campuses, Gainesville and Jacksonville. Adopting a market-rate tuition model will be necessary to recruit appropriate faculty and staff as well as to afford costs associated with instruction, administration, digital infrastructure, and facilities. Not only will this improve the efficiency and quality of the program, but it also enables us to respond more quickly to market fluctuations, including the ability to lower costs or offer financial assistance as the program scales up, thus making it more accessible to all.

Timeline

Date	Activity
March 2024	Submit M.S. New Degree proposal to Academic Approval Tracking System
April 2024	Meet with UF Teaching and Technology Distance Program Services for Market Research
April 2024	Apply for Strategic Funding
May 2024	Finalize budget
May 2024	Submit new course requests
Summer 2024	Determine marketing, student recruitment, and retention service
Fall 2024	Begin advertising, plan administrative structure

Spring 2025	Implement administrative structure; Advertising, recruitment
Summer 2025	Advertising, recruitment, and enrollment
Fall 2025	Launch AIBHS program with first cohort of incoming students

D. Provide the expected resident and non-resident tuition rate for the proposed program for both resident and non-resident students. The tuition rates should be reported per credit hour unless the institution has received approval for a different tuition structure. If the proposed program will operate as a continuing education program per Board of Governors Regulation 8.002, describe how the tuition amount was calculated and how it is reflected in Appendix A – Table 3B.

We propose to charge $1,200 per credit hour, which is the average in-state tuition for the six programs most similar to AIBHS with the highest market share for CIP code 51.2706.

E. Describe external financial and in-kind resources available to support the proposed program and explain how this amount is reflected in Appendix A – Table 3A or 3B.

IC^3 has several in-kind resources available. Not only is it developing several biomedical AI modules whose materials will be made available to AIBHS, but it already has on staff a program director who will be well suited to administer AIBHS. (Program director cost is reflected in line 17 of Appendix A – Table 3B). Furthermore, IC^3 is located in Malachowsky Hall and presides over the AI Collaboratory space, a large, flexible area where students can learn, engage, and collaborate digitally and in person.

We are also actively working to raise funds. In addition to discussing funding opportunities with the College of Medicine, we will also apply for Strategic Funding at the next opportunity, which is scheduled for April 2024.

VIII. Self-Supporting and Market Tuition Rate Programs

Note: Skip this section If the proposed program will not operate as a self-supporting or market tuition rate program.

Proposed Program Type

☒ Market Tuition Rate Program

- **☐ Online**
- **☐ Continuing Education**

☐ Self-Supporting Program

☐ N/A

A. Provide supporting documentation in a separate attachment that serves as evidence that the new program will not supplant any existing similar or equivalent E&G degree offering. Describe the evidence in narrative form below. *Note that Board Regulation 8.002 considers a program similar if it is offered under the same CIP code as one funded under the E&G budget entity.*

The following programs have the same CIP code, 51.2706, as CAVP has approved for AIBHS: FIU's M.S. in Health Informatics and Analytics, USF's M.S. in Health Informatics, and UNF's M.S. in Health Informatics.

Both FIU's and USF's programs are self-funded, according to administrators of the programs. Please see Appendix L for emails to this effect from FIU and USF.

UNF's program, in contrast, is an E&G program. However, it is quite different than the one proposed here. UNF's courses are primarily designed to train students in effective healthcare administration and management.

There is only one required course concerned with data, and it does not discuss AI. Indeed, there is very little AI training in UNF's curriculum. For documentation to this effect, see Appendix L for a screenshot of UNF's curriculum.

AIBHS, on the other hand, is an interdisciplinary AI program dedicated to teaching its students how to design, implement, and use AI systems in healthcare domains. Students will receive hands-on training in both clinical and biomedical settings. Consequently, we will attract different kinds of students. See Appendix L for a screenshot of UNF's curriculum.

B. If the proposed self-supporting or market tuition rate program will be a track under an existing E&G program or has a similar existing E&G program, provide a side-by-side tuition and fee comparison in the table below. Provide a link to the university's website that provides students with information about financial assistance and obligations for repayment of loans for these programs.

☒ Not applicable because the program will not be a track under an existing E&G program or is not similar to an existing E&G program.

Tuition and Fee Comparison

E&G Track or Program	Proposed Program

C. Explain whether the program leads to initial licensing or certification in occupational areas identified as a state critical workforce need. If so, which licenses and certifications will graduates receive upon completion, and explain why implementing the program as self-supporting or market tuition rate is the best strategy to increase the number of graduates in the state.

The are no specific licensing or certification requirements in occupational areas. The M.S. would serve to establish qualifications.

Note: Questions D – M pertain only to market tuition rate programs. If the proposed program will be self-supporting, skip to Section IX.

D. Explain the process used to determine the proposed market tuition rate and provide the tuition of similar programs offered by other SUS institutions and private institutions as appropriate so that the tuition of at least five similar

programs is provided. If the proposed tuition rates differ for resident and non-resident students, explain why.

To determine anticipated demand and a reasonable cost to students, we have been working with the Office of self-supporting programs at the UF Office of the Provost. Using Table 1 from the above market analysis, highlighting the top 30 institutions with market share for CIP code 51.2706, we compared curricula to determine which programs are most similar to the proposed AIBHS. Based on faculty analysis, they are Rutgers University, New Brunswick; New York University (NYU); University of Alabama Birmingham (UAB); Duke University; Stanford University; and University of South Florida (USF). Before continuing, there are three points to note: (1) I include USF for the sole reason that it's the most similar program to AIBHS in the SUS; however, it offers no substantive training in AI/ML training, which is significantly different from AIBHS; (2) Stanford's program requires its students to have strong computational backgrounds, whereas AIBHS doesn't; and (3) UAB offers a graduate certificate, not an M.S.

Institution	Master's Completions 2022	Growth % YOY 2022	Market Share 2022	IPEDS Tuition & Fees 2022 In-state	IPEDS Tuition & Fees 2022 Out of State
Rutgers Univ.-New Brunswick	326	1.60%	4.90%	$779	$1,325
New York Univ.	307	26.90%	4.60%	$2,074	$2,074
Univ. of South Florida	300	-18.70%	4.50%	$435	$880
Univ. of Alabama at Birmingham	135	36.40%	2.00%	$468	$1,109
Duke Univ.	87	10.10%	1.30%	$3,495	$3,495
Stanford Univ.	60	66.70%	0.90%	$1,255	$1,255

The average in-state cost per credit hour for these programs is $1,417.67; the out-of-state average is $1,689.67. If we set aside Duke, since it's clearly an outlier, the average cost per credit hour for in-state and out-of-state students is $1,002.20 and $1,328.60, respectively.

Given the evidence of the demand for these programs, UF's resources (e.g., HiPerGator), its numerous pre-eminent biomedical AI faculty, as well as its flagship status and emergence as a university specializing in AI, we believe that $1,200 per credit hour is reasonable and sustainable. Finally, a strategic market research consultant conducted a national survey which demonstrated that respondents, on average, would be willing to spend a maximum of $53,160 on an AIBHS MS degree program. Given that the program will be 30-credits, this equates to $1,772 per SCH. In summary, we feel that the price of $1,200 per SCH is justifiable, and still below the going market rate for a program of this type.

E. Explain how offering the proposed program at a market tuition rate is aligned with the university's mission. If the program qualifies as a Program of Strategic Emphasis, provide additional justification for charging higher tuition for the proposed program.

In addition to the University of Florida's central mission to cultivate and provide exceptional teaching, research, and service, it is also committed to becoming the top university for AI. AIBHS can best further this mission by implementing a market rate, even though it qualifies as a Program of Strategic Emphasis.

First, no departments in the SUS offer programs that sufficiently bridge the gap between AI, the biomedical sciences, and the clinical sciences. In part, this is because the range of expertise necessary for doing so doesn't fit well into traditional ways of demarcating disciplines. Thus, housing AIBHS in a center embracing various disciplines, such as IC3, is ideal. However, centers cannot receive E&G funds or state-generated revenue; consequently, a program so housed must be financially self-reliant. Second, faculty with AI expertise are in high demand; they are experts in cutting-edge and lucrative fields. They cannot be expected to participate if they are not compensated appropriately. Satisfying these desiderata requires higher tuition rates than usual. $1,200 per credit hour enables AIBHS to become profitable in year 4 of the program.

Further, students will learn from pre-eminent faculty at the vanguard of their fields, positioning them to pioneer new innovations that advance biomedical research, streamline healthcare systems and processes, and improve patient care. Research will be advanced through discovery and new collaborations at multiple sites. Finally, the community will benefit in numerous ways: it will have new educational opportunities offered in different modalities suitable for different needs; industry will have a larger pool of qualified applicants; students will have higher earning potential, benefitting the local economy; and the community will enjoy improved medical care. Given that AIBHS will serve to upskill the existing workforce as well as those preparing to enter it, we are committed to offering an excellent program at an accessible rate. As the program scales up, a market rate tuition model frees AIBHS to offer financial support to those who need it and to potentially lower the cost per credit hour.

In short, the nature of AIBHS is such that a market rate best enables it to advance UF's mission and modulate to the market while remaining self-reliant.

F. Provide a declaratory statement that offering the proposed program at the market tuition rate does not increase the state's fiscal liability or obligation.

We hereby declare that offering AIBHS at the market tuition rate of $1200 per credit hour will not increase the state's fiscal liability or obligation.

G. Explain any proposed restrictions, limitations, or conditions to be placed on the program.

Not applicable

H. Explain how the university will ensure sufficient courses are available to meet student demand and facilitate program completion.

UF already has numerous faculty members who are well-qualified to teach these courses, many of whom are AI faculty members who would benefit from more teaching opportunities in their areas. We will increase faculty participation as student demand increases. We are confident we can do so, given that we will offer commensurate compensation. As the program scales up, market-rate tuition will enable us to recruit any necessary additional faculty.

I. If applicable, provide a baseline of current enrollments, including a breakout of resident and non-resident enrollment in similar courses funded by the E&G budget entity.

Not applicable

J. Describe any outcome measures that will be used to determine the program's success.

Graduation rates: 80% or more 4-year graduation rate; enrollment rates: 25% enrollment growth per year; career placement: 95% job placement or promotion within 1 year of graduating from the program, student surveys with an aggregate average score of 80% (satisfaction) or better; and financial sustainability (profitability by the end of year 4).

K. List the campuses and/or sites at which the proposed program will be offered. If the program is only offered online, indicate that, and provide the location from which the program will be managed.

Courses will be offered at UF's main campus in Gainesville, at UF Health Jacksonville, and, if approved, at the proposed UF Jacksonville campus. Hybrid courses will be offered – providing simultaneous virtual and in-person learning. AIBHS, however, will be managed in Gainesville by UF's College of Medicine's Intelligent Clinical Care Center (IC^3).

L. Provide an estimate of the total and net annual revenue the university anticipates collecting for Years 1 and 5 if the proposal is approved. This information should be consistent with the data provided in Appendix A – Table 3B, which is required as a part of this proposal.

If approved, we estimate that the program will run a deficit of $447,218 in year 1 and a profit of $327,729.54 in year 5. To offset the projected deficit and maintain non-E&G cost recovery, we will apply for strategic funding at the next opportunity, which is expected to be in April 2024.

M. Describe how revenues will be spent, including whether private vendors will be utilized and for what purpose. Additionally, identify all budget entities used for the program.

Market rate tuition revenue will only be spent on programmatic expenses, reinvested to enhance the instructional quality of the program, or spent as financial support for prospective students. Initially, AIBHS will partner with the UF Operational Services Unit, which will provide advertising, recruiting, admissions, and application support services for a 30% share of revenue. As the program grows, we expect to need two additional full-time administrative positions, which will include an academic specialist and an administrative specialist to manage the financial and human resource needs of the program, eventually taking over these duties from UF Operational Services Unit. These staff positions will be entirely funded through market-rate tuition, and we estimate that with fringe, these positions will cost the program $100,000 annually. We have also allotted $100,000 for non-personnel advertising/marketing fees. Moreover, because AIBHS will be co-located between Gainesville and Jacksonville, with face-to-face courses offered at both, we have allotted $20,000 for year 1 travel, plus $5000 each additional year. And, of course, as the program grows and AI technology advances, we will offer more courses, which will involve more faculty and course development costs.

These investments will ensure the quality and long-term success of what we anticipate will be a flagship program for the UF in both Gainesville and Jacksonville. It is critical, therefore. that the quality of instruction available to students is of the highest caliber possible. It is highly unlikely that AIBHS could accomplish these goals without market-rate tuition. See Appendix A – Table 3B for more details.

IX. Non-Faculty Resources

A. Describe library resources currently available to implement and/or sustain the proposed program through Year 5 below, including but not limited to the following:

- **the total number of volumes and serials available in the discipline and related disciplines**
- **all major journals that are available to the university's students**

The Library Director must sign the additional signatures page to indicate they have reviewed Sections IX.A. and IX.B.

The George A. Smathers Libraries at the University of Florida hold over 6.7 million print volumes 2.1 million e-books and provide access to over 190,000 full-text print and electronic journals, as well as over 1,000 electronic databases. A free interlibrary loan service allows faculty, students, and staff to access external resources that are not included in the library's on-site and electronic collections. The Libraries offer a video production studio, maker-spaces, and a virtual and augmented reality lab. All campus libraries host computer labs managed by Academic Technology, which provide access to specialized software, including ArcGIS, CAD, Adobe Creative Cloud, and more. The Libraries provide expertise in Natural Language Process, Informatics, GIS, and Data Management.

The UF Libraries expend over $12 million annually on electronic resources. Listed below is a selection of important journals available through UF Libraries that will support students in this program. Due to the interdisciplinary nature of artificial intelligence and data science, this is only a representative list.

- ACM Transactions on Knowledge Discovery from Data
- Artificial Intelligence
- Artificial Intelligence in Medicine
- Artificial Intelligence Review
- Big Data Research
- Data Mining and Knowledge Discovery
- IEEE Journal of Biomedical and Health Informatics
- IEEE Transactions on Knowledge and Data Engineering
- International Journal of Data Science and Analytics
- International Journal of Machine Learning and Cybernetics
- Journal of the American Medical Informatics Association
- Journal of Healthcare Informatics Research
- Journal of Intelligent Information Systems
- Journal of Machine Learning Research
- Machine Learning
- SIGKDD Exploration
- Statistical Analysis and Data Mining
- Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery

In addition, there are a growing number of open-access journals in the field; the content of these journals is freely available to readers and is discoverable through the UF libraries catalog and journal databases. Here are several relevant open-access journals:

- Applied Artificial Intelligence
- BioData Mining (BMC)
- BMC Bioinformatics
- BMJ Health & Care Informatics
- EPJ Data Science (Springer Open)
- JMIR Medical Informatics
- Journal of Big Data (Springer Open)
- Journal of Data Science
- Journal of Intelligent Learning Systems and Applications
- Radiology - Artificial Intelligence
- Transactions on Machine Learning and Data Mining

The Libraries offer consultations, workshops, and events throughout the year, and this program has the support of the following professionals: 8 Health Sciences Librarians who serve as liaisons to various departments in the College of Medicine, Natural Language Processing Specialist, Informatics Librarian, Bioinformatics Librarian, Computer Science & Engineering Librarians, Geospatial Information Services (GIS) Librarian, and other members of the Smathers Libraries' Academic Research Consulting and Services (ARCS) team.

B. Discuss any additional library resources needed to implement and/or sustain the program through Year 5. Describe how those costs are reflected in Appendix A – Table 3A or 3B.

☒ Not applicable to this program because no additional library resources are needed to implement or sustain the proposed program.

C. Describe any specialized equipment and space currently available to implement and/or sustain the proposed program through Year 5.

In addition to biomedical laboratories run by College of Medicine faculty and clinical sites in UF Health hospitals, AIBHS will leverage several modern resources of Malachowsky Hall for Data Sciences & Information Technology, a recently completed 263,000-square-foot facility at the heart of the main UF campus that brings together faculty and students from key departments in the Colleges of Engineering and Medicine to reimagine transformative AI research. Malachowsky Hall includes numerous flexible classrooms that can be altered to complement various innovative teaching methods, encouraging innovative pedagogical approaches and interactive, cross-disciplinary learning. There are an additional 30 lab spaces designed to encourage cross-pollination among researchers from different fields. The building also includes office spaces for student groups and a makerspace that can be reserved for tech workshops and other student-developed collaborations and prototyping.

All AIBHS graduate students will also have access to HiPerGator, the UF supercomputing cluster that includes the latest generation of AI hardware. HiPerGator has enabled unprecedented AI capability at

the University of Florida and across the state of Florida. Students will utilize HiPerGator for all AI coursework and projects.

D. Describe any additional specialized equipment or space needed to implement and/or sustain the proposed program through Year 5. Include any projected Instruction and Research (I&R) costs of additional space in Appendix A – Table 3A or 3B. Costs for new construction should be provided in response to Section IX.E. below.

☒ Not applicable to this program because no new I&R costs are needed to implement or sustain the program through Year 5

E. If a new capital expenditure for instructional or research space is required, indicate where this item appears on the university's fixed capital outlay priority list. Appendix A – Table 3A or 3B includes only I&R costs. If non-I&R costs, such as indirect costs affecting libraries and student services, are expected to increase due to the program, describe and estimate those expenses in narrative form below. High enrollment programs, in particular, are expected to necessitate increased costs in non-I&R activities.

☒ Not applicable to this program because no new capital expenditures are needed to implement or sustain the program through Year 5.

F. Describe any additional special categories of resources needed to operate the proposed program through Year 5, such as access to proprietary research facilities, specialized services, or extended travel. Explain how those projected costs of special resources are reflected in Appendix A – Table 3A or 3B.

☒ Not applicable to this program because no additional special categories of resources are needed to implement or sustain the program through Year 5.

G. Describe fellowships, scholarships, and graduate assistantships to be allocated to the proposed program through Year 5 and explain how those are reflected in Appendix A – Table 3A or 3B.

☒ Not applicable to this program because no fellowships, scholarships, and/or graduate assistantships will be allocated to the proposed program through Year 5.

X. Required Appendices

The appendices listed in tables 1 & 2 below are required for all proposed degree programs except where specifically noted. Institutions should check the appropriate box to indicate if a particular appendix is included to ensure all program-specific requirements are met. Institutions may provide additional appendices to supplement the information provided in the proposal and list them in Table 2 below.

Table 1. Required Appendices by Degree Level

Appendix	Appendix Title	Supplemental Instructions	Included Yes/No	Required for Degree Program Level		
				Bachelors	Masters/ Specialist	Doctoral/ Professional
A	Tables 1-4			X	X	X
B	Consultant's Report and Institutional Response					X
C	Academic Learning Compacts	Include a copy of the approved or proposed Academic Learning Compacts for the program.		X		
D	Letters of Support or MOU from Other Academic Units	Required only for programs offered in collaboration with multiple academic units within the institution		X	X	X
E	Common Prerequisite Request Form	This form should also be emailed directly to the BOG Director of Articulation before submitting the program proposal to the Board office for review.		X		
F	Request for Exemption to the 120 Credit Hour Requirement	Required only for baccalaureate degree programs seeking approval to exceed the 120 credit hour requirement		X		
G	Request for Specialized Admissions Status	Required only for baccalaureate degree programs seeking approval for specialized admissions status		X		

H	Attestations for Self-Supporting and Market Tuition Rate Programs	Required only for self-supporting or market tuition rate programs		X	X
I	Faculty Curriculum Vitae		X	X	X

Table 2. Additional Appendices

Appendix	Appendix Title	Description
K	Sources for table 'Job Opportunities for AIBHS Graduates'	Citations for data used in that table
L	CIP Code Institutions	Documentation that other FL SUS schools with the same CIP code either are not E&G programs OR have a very different curriculum than AIBHS
M	Market Analysis for Master of Science in Artificial Intelligence in Biomedical & Health Sciences	Provided by UF Teaching and Technology's Office of Self-Supporting Programs
N	MOU for startup funds	MOU from UF's Vice President of Strategic Initiatives promising annual startup funds through program year 3

UF | Board of Trustees
UNIVERSITY of FLORIDA

COMMITTEE ON ACADEMIC, FACULTY AND STUDENT SUCCESS, PUBLIC RELATIONS AND STRATEGIC COMMUNICATIONS
ACTION ITEM AFSSPRSC3
December 12, 2024

SUBJECT: Degree Program Changes

BACKGROUND INFORMATION

The College of Medicine seeks to reduce the amount of credit for the Master of Science (M.S.) with a major in Genetics and Genomics (CIP 26.0801) from 33 total credits to 30 total credits. This will accommodate additional career development activities during the summer term. The change was approved by the Curriculum Committee and then by the Faculty Senate at their August 22, 2024, meeting.

The College of Medicine seeks to modify the number of credit hours required for the Master of Science (M.S.) with a major in Anatomical Sciences Education (CIP 26.0403) from 32 total credit hours to 31 total credit hours. As a result, no change in student learning is anticipated. The change was approved by the Curriculum Committee and then by the Faculty Senate at their October 17, 2024, meeting.

The College of Medicine is requesting to reduce the number of credits for graduation from 192 to 184 (or 4%) and will reduce the number of weeks per LCME accreditation) from 152 to 151, which is above the 130 weeks required by the LCME. The request to modify the total credits and weeks of the program is to attempt to standardize inaccurate records with no impact to the program overall. The change was approved by the Curriculum Committee.

PROPOSED COMMITTEE ACTION

The Committee on Academic, Faculty and Student Success, Public Relations and Strategic Communications is asked to approve the above degree program change for recommendation to the Board of Trustees for approval on the Consent Agenda.

ADDITIONAL COMMITTEE CONSIDERATIONS

Board of Governors approval is required.

Supporting Documentation Included: See attached document

Submitted by: Joseph Glover, Interim Provost and Senior Vice President for Academic Affairs

Approved by the University of Florida Board of Trustees, December 12, 2024

_____ _____

Morteza “Mori” Hosseini, Chair Kent Fuchs, Interim President and Corporate Secretary

Degree|Change_Credits for request 19840

Info

Request: Reduce the amount of credit for the M.S. degree in Genetics and Genomics
Description of request: The College of Medicine seeks to reduce the amount of credit for the Master of Science (M.S.) with a major in Genetics and Genomics.
Submitter: Connie Mulligan cmulligan@ufl.edu
Created: 4/29/2024 11:43:07 AM
Form version: 2

Responses

Degree Name
Enter the name of the degree program.

Response:
M.S. degree with a major in Genetics and Genomics

CIP Code
Enter the six digit Classification of Instructional Programs (CIP) code for the degree program. The code has the numerical format XX.XXXX. Contact the Office of Institutional Planning and Research (OIPR) to verify the CIP code for the existing degree program.

Response:
26.0801

Current Total Credits
Enter the current number of credits needed to complete the majors in the degree program.

Response:
33

Proposed Total Credits
Enter the proposed number of credits needed to complete the majors in the degree program.

Response:
30

Do the total credit hours increase or decrease by 25% or more AND students' expected time to completion increases or decreases by more than one term

Response:
No

Effective Term
Enter the term (semester and year) that the requested change in total credits would be effective.

Response:
Earliest Available

Effective Year

Response:
Earliest Available

Pedagogical Rationale/Justification
Describe the rationale for the proposed change to the total credits. In accordance with the requirements of Section 1007.25, F.S., the Board of Governors may approve a request by a university board of trustees for a bachelor's degree program to exceed 120 credit hours to degree for the following reasons:
<ol style="list-style-type:lower-alpha;">
• Additional courses are required to meet specialized accreditation standards for program content and such accreditation is expected or required for program graduates to become employed in the profession for which they are being prepared (e.g. Engineering, Architecture).
• Additional courses are required to meet state or federal mandated criteria for professional licensing (e.g., Teacher Education).
*• The degree program offers a unique and innovative learning experience, such as honors programs, individualized study, and other non-traditional approaches to education.
*

Response:
The required GMS5905 Foundations for a Career in Genetics & Genomics credits to be taken in Year 1 Summer will be reduced from 6 credits to 3 credits. This change accommodates additional career development activities during the summer term.

Impact on Initial Enrollment/Retention/Graduation
Describe the projected impact of the change in total credits on enrollment and on retention and graduation of students in the majors.

Response:
No impact on enrollment, retention, or graduation of students is expected.

Assessment Data Review
Describe the Student Learning Outcome and/or program goal data that was reviewed to support the proposed changes.

Response:
The change in credits relates to the following Student Learning Outcome. M.S. students will now take 3 credits (changed from 6 credits) of GMS5905 in Year 1 Summer and 5 credits of GMS5905 in Year 2 Fall:
- Students will acquire hands-on expertise in generating and analyzing genomic data, including the use of biostatistics, bioinformatics, machine learning, and artificial intelligence techniques, as assessed by earning a grade of A or B in GMS 5905 Foundations for a Career in Genetics & Genomics.

Academic Learning Compact and Academic Assessment Plan
Describe the modifications to the Academic Learning Compact and Academic Assessment Plan that result from the proposed change.

Response:
No modifications are necessary.

Degree|Change_Credits for request 19926

Info

Request: Change of total credit hours for Anatomical Science Education M.S. program
Description of request: The College of Medicine seeks to modify the number of credit hours required for the Master of Science (M.S.) with a major in Anatomical Sciences Education.
Submitter: Yehia Daaka ydaaka@ufl.edu
Created: 7/1/2024 6:58:10 AM
Form version: 2

Responses

Degree Name
Enter the name of the degree program.

Response:
Master of Science (M.S.) with a major in Anatomical Sciences Education

CIP Code
Enter the six digit Classification of Instructional Programs (CIP) code for the degree program. The code has the numerical format XX.XXXX. Contact the Office of Institutional Planning and Research (OIPR) to verify the CIP code for the existing degree program.

Response:
26.0403

Current Total Credits
Enter the current number of credits needed to complete the majors in the degree program.

Response:
32

Proposed Total Credits
Enter the proposed number of credits needed to complete the majors in the degree program.

Response:
31

Do the total credit hours increase or decrease by 25% or more AND students' expected time to completion increases or decreases by more than one term

Response:
No

Effective Term
Enter the term (semester and year) that the requested change in total credits would be effective.

Response:
Fall

Effective Year

Response:
2024

Pedagogical Rationale/Justification
Describe the rationale for the proposed change to the total credits. In accordance with the requirements of Section 1007.25, F.S., the Board of Governors may approve a request by a university board of trustees for a bachelor's degree program to exceed 120 credit hours to degree for the following reasons:
<ol style="list-style-type:lower-alpha;">
• Additional courses are required to meet specialized accreditation standards for program content and such accreditation is expected or required for program graduates to become employed in the profession for which they are being prepared (e.g. Engineering, Architecture).
• Additional courses are required to meet state or federal mandated criteria for professional licensing (e.g., Teacher Education).
*• The degree program offers a unique and innovative learning experience, such as honors programs, individualized study, and other non-traditional approaches to education.
*

Response:
We ask to change the number of credit hours from 32 to 31. The requested change is based on modifying the total credit hours for one of the required courses GMS 5630 Medical Histology from 4 to 3 credit hours, for which we have already received approval from the Graduate Curriculum Committee.

Impact on Initial Enrollment/Retention/Graduation
Describe the projected impact of the change in total credits on enrollment and on retention and graduation of students in the majors.

Response:
No change in enrollment is anticipated.

Assessment Data Review
Describe the Student Learning Outcome and/or program goal data that was reviewed to support the proposed changes.

Response:
We changed the previously required review sessions to optional. As a result, no change in student learning is anticipated.

Academic Learning Compact and Academic Assessment Plan
Describe the modifications to the Academic Learning Compact and Academic Assessment Plan that result from the proposed change.

Response:
There is no change in the academic compact. The previous mandatory review sessions are now optional.

Degree|Change_Credits|Professional for request 19799

Info

Request: Medicine (MD) - Change total credits to 184
Description of request: The Medicine (MD) program is accredited by the Liaison Committee on Medical Education (LCME). Element 6.8 of the LCME accreditation states, "A medical education program includes at least 130 weeks of instruction." A summary of the reduction of credits is outlined below.
1. BMS6810 - Introduction to Clinical Medicine (#19782) reduce the credits from 8 to 7 to align with the number of contact hours and credits in the other three Introduction to Clinical Medicine courses. (reduction of 1 credit)
2. BMS6813 - Introduction to Clinical Medicine (#19784) reduce the credits from 16 to 7 to align with the number of contact hours and credits in the other three Introduction to Clinical Medicine courses. (reduction of 9 credits)
3. BMS6814 - Introduction to Clinical Medicine (#19785) reduce the credits from 8 to 7 to align with the number of contact hours and credits in the other three Introduction to Clinical Medicine courses. (reduction of 1 credit)
4. MDC7940 - Transition to Residency (#19786) to reduce the credits from 4 to 3 to accurately align with the contact hours and number of weeks students meet in the course. (reduction of 1 credit)
5. BMS6091 - Health Outcomes and Policy (#19790) course closure (reduction 1 credit)
6. BMS6863 - Population Health in Medicine (#19792) course closure (reduction 1 credit)
7. Creation of 4 new HSS courses (1A = 1 credit; 1B = 3 credits; 2A = 1 credit; 2B = 1 credit) (increase 6 credits)

Overall, the request will reduce the number of credits for graduation 192 to 184 (or 4%), and will reduce the number of weeks (per LCME accreditation) from 152 to 151, which is above the 130 weeks required by the LCME.
Submitter: Kathy Green kathylgreen@ufl.edu
Created: 4/1/2024 4:51:08 PM
Form version: 2

Responses

Degree Name
Enter the name of the degree program.

Response:
Medicine

CIP Code
Enter the six digit Classification of Instructional Programs (CIP) code for the degree program. The code has the numerical format XX.XXXX. Contact the Office of Institutional Planning and Research (OIPR) to verify the CIP code for the existing degree program.

Response:
51.1201

Current Total Credits
Enter the current number of credits needed to complete the majors in the degree program.

Response:
192

Proposed Total Credits
Enter the proposed number of credits needed to complete the majors in the degree program.

Response:
184

Do the total credit hours increase or decrease by 25% or more AND students' expected time to completion increases or decreases by more than one term

Response:
No

Effective Term
Enter the term (semester and year) that the requested change in total credits would be effective.

Response:
Fall

Effective Year

Response:
2024

Pedagogical Rationale/Justification
Describe the rationale for the proposed change to the total credits. In accordance with the requirements of Section 1007.25, F.S., the Board of Governors may approve a request by a university board of trustees for a bachelor's degree program to exceed 120 credit hours to degree for the following reasons:
<ol style="list-style-type:lower-alpha;">
• Additional courses are required to meet specialized accreditation standards for program content and such accreditation is expected or required for program graduates to become employed in the profession for which they are being prepared (e.g. Engineering, Architecture).
• Additional courses are required to meet state or federal mandated criteria for professional licensing (e.g., Teacher Education).
*• The degree program offers a unique and innovative learning experience, such as honors programs, individualized study, and other non-traditional approaches to education.
*

Response:
The Medicine (MD) program is accredited by the Liaison Committee on Medical Education (LCME). Element 6.8 of the LCME accreditation states, "A medical education program includes at least 130 weeks of instruction." A summary of the reduction of credits is outlined below.
1. BMS6810 - Introduction to Clinical Medicine (#19782) reduce the credits from 8 to 7 to align with the number of contact hours and credits in the other three Introduction to Clinical Medicine courses. (reduction of 1 credit)
2. BMS6813 - Introduction to Clinical Medicine (#19784) reduce the credits from 16 to 7 to align with the number of contact hours and credits in the other three Introduction to Clinical Medicine courses. (reduction of 9 credits)
3. BMS6814 - Introduction to Clinical Medicine (#19785) reduce the credits from 8 to 7 to align with the number of contact hours and credits in the other three Introduction to Clinical Medicine courses. (reduction of 1 credit)
4. MDC7940 - Transition to Residency (#19786) to reduce the credits from 4 to 3 to accurately align with the contact hours and number of weeks students meet in the course. (reduction of 1 credit)
5. BMS6091 - Health Outcomes and Policy (#19790) course closure (reduction 1 credit)
6. BMS6863 - Population Health in Medicine (#19792) course closure (reduction 1 credit)

7. Creation of 4 new HSS courses (1A = 1 credit; 1B = 3 credits; 2A = 1 credit; 2B = 1 credit) (increase 6 credits)

Overall, the request will reduce the number of credits for graduation by 4%, and will reduce the number of weeks (per LCME accreditation) from 152 to 151, which is still above the 130 weeks required.

Impact on Initial Enrollment/Retention/Graduation
Describe the projected impact of the change in total credits on enrollment and on retention and graduation of students in the majors.

Response:
There are no impacts to enrollment, retention, or graduation. The requests are to correct the inaccurate credits currently earned for BMS6813 (16 credits) and align the actual weeks/credits for MDC7940.

Assessment Data Review
Describe the Student Learning Outcome and/or program goal data that was reviewed to support the proposed changes.

Response:
Ultimately, the goal of the Medicine program is to prepare students for a residency of their choosing (PG3 - Residency Preparation). The request to modify the total credits and weeks of the program is to attempt to standardize inaccurate records with no impact to the program overall.

Academic Learning Compact and Academic Assessment Plan
Describe the modifications to the Academic Learning Compact and Academic Assessment Plan that result from the proposed change.

Response:
No changes are required to the Academic Assessment Plan.

Request to Change the Name of a Center/Institute

Over the life of a Center or Institute the need or interest in changing the name may occur. To request such a name change, complete the information below and forward to the Provost's Office, PO Box 113175. The name change is contingent upon approval from the Provost.

Center/Institute Original Name:

Space Mission Institute

Proposed New Center/Institute Name:

Astraeus Space Institute

Brief Explanation for the Name Change:

UF needed to differentiate ourselves from our competitors right from the outset. For many competitors, "space" seemed like an afterthought, a word just tacked onto the name of the university or center. As we thought about how UF could be different from those other institutions, we were drawn to the branding NASA has used so effectively over the entire course of human spaceflight. Most of us have no trouble remembering the early NASA missions by their names -- Mercury, Gemini, Apollo -- and now Artemis. With input from the Agency at UF we have settled on the Astraeus Space Institute. Astraeus was the mythological god of the stars and planets, so this name aligns well with the goals of our institute, and importantly distinguishes us from other space institutes at other universities.

Robert Ferl — 5/13/2024

Director Robert J. Ferl, Ph.D. — Date

Not Applicable

Dean — Date

David P. Norton — 5/14/2024 | 5:14 PM EDT

Vice President (as appropriate) — Date — David P. Norton, Ph.D.

5/17/2024 | 4:02 PM EDT

Provost J. Scott Angle, Ph.D. — Date

☒ Approved ☐ Disapproved

For Provost's Office Use Only

Copy to requesting Center: (date) _____

Copy to Institutional Research: (date) _____

GW

Request to Change the Name of a Center/Institute

Over the life of a Center or Institute the need or interest in changing the name may occur. To request such a name change, complete the information below and forward to the Provost's Office, PO Box 113175. The name change is contingent upon approval from the Provost.

Center/Institute Original Name: Center for Smell and Taste (CST)

Proposed New Center/Institute Name: Florida Chemical Senses Institute (FCSI)

Brief Explanation for the Name Change:

Founded in 1998, the Center for Smell and Taste has helped put UF on the map for smell and taste research. That said, the chemosensory field has evolved over these decades and there is a need to rename the Center to allow for it to best support our community in UF and beyond. Founding Director, Dr. Barry Ache, also supports a name change. Benefits of the new name include:

1) Broader Scope: "Chemical Senses" encompasses not just smell and taste, but also the sensation of irritation detected by the trigeminal nerve (responsible for the burning of chili peppers) and the internal sensory systems that regulate hunger, thirst, and satiety. This broader term reflects the true range of research at UF.

2) Increased Visibility: "Florida" places the institute in a geographical context, which will be more attractive to major funding sources and philanthropy. This will also be helpful as Florida residents seek resources and thus the FCSI would bring increased visibility to UF as being a focal point for this important research spanning agriculture to human disease.

3) Capture Across-College Nature: As per the UF Guidelines for Centers and Institutes, an institute is "an umbrella organization providing administrative support for two or more academic units that are working on related subjects" whereas a center generally "provides services and support to a specific population". Renaming this an "institute" will help place the across-college nature of the FCSI front-and-center and for it to better support UF students and researchers.

4) Enhanced Reputation: Finally, "Institute" suggests a larger and more comprehensive research facility, which would elevate the perception of the quality and significance of the administrative work performed.

JW Wesson 6/3/3024

Director Date

Dean Date

David P. Norton 6/18/2024 | 10:33 AM EDT

Vice President (as appropriate) Date

6/20/2024 | 12:30 PM EDT

Provost Date

☐ Approved ☐ Disapproved

For Provost's Office Use Only

Copy to requesting Center: (date) _____

Copy to Institutional Research: (date) _____

Request to Change the Name of a Center/Institute

Over the life of a Center or Institute the need or interest in changing the name may occur. To request such a name change, complete the information below and forward to the Provost's Office, PO Box 113175. The name change is contingent upon approval from the Provost.

Center/Institute Original Name:

Food Systems Institute

Proposed New Center/Institute Name:

Global Food Systems Institute

Brief Explanation for the Name Change:

The Institute's mandate has been changed to focus on global food systems issues by the IFAS SVP.

Adegbola Adesogan 7/1/2024 | 4:06 PM EDT

Director Date

John M. Davis 7/1/2024 | 4:17 PM EDT

Dean Date

Robert Gilbert 7/1/2024 | 4:19 PM EDT

Vice President (as appropriate) Date

7/1/2024 | 4:27 PM EDT

Provost Date

☒ Approved ☐ Disapproved

For Provost's Office Use Only

Copy to requesting Center: (date) _____

Copy to Institutional Research: (date) _____

Request to Change the Name of a Center/Institute

Over the life of a Center or Institute the need or interest in changing the name may occur. To request such a name change, complete the information below and forward to the Provost's Office, PO Box 113175. The name change is contingent upon approval from the Provost.

Center/Institute Original Name: **Major Analytical Instrumentation Center (MAIC)** which is part of the Research Service Centers in the Herbert Wertheim College of Engineering. https://rsc.aux.eng.ufl.edu/maic/

Proposed New Center/Institute Name: **Nanofabrication Research Facility (NRF)**

Brief Explanation for the Name Change: The Nanofabrication Research Facility is also part of the Research Service Centers in the Herbert Wertheim College of Engineering and is more recognizable that the Research Service Centers or the Major Analytical Instrumentation Center and encompasses all of the activities in the above centers. Furthermore, it is 1) the existing name of the building housing the center, 2) unique at UF, 3) recognizable as related to Semiconductors which is important for the Semiconductor Initiative, 4) does not exclude non-semiconductor stakeholders, and 5) is concise.

Luisa Amelia Dempere 06/27/2024
Director Date

Alina Zare 7/16/2024 | 9:54 AM EDT
Dean Date

Vice President (as appropriate) Date

7/17/2024 | 6:27 PM EDT
Provost Date

☒ Approved ☐ Disapproved

For Provost's Office Use Only

Copy to requesting Center: (date) _____

Copy to Institutional Research: (date) _____