

April 28, 2021

TO: Members of the Board of Trustees

FROM: Carl W. Lejuez, Ph.D. 
Provost and Executive Vice President for Academic Affairs

RE: Master of Science (MS) Financial Technology (Fintech)

RECOMMENDATION:

That the Board of Trustees approve a new Master of Science (MS) in Financial Technology (Fintech)

BACKGROUND:

The School of Law, working with Peter Diplock, Associate Vice Provost, Center for Excellence in Teaching and Learning (CETL), retained Hanover Research to conduct a labor market analysis relating to this and other proposed programs. Hannover's key finding is that the School of Law should "expand development of compliance- and insurance-related non-JD programming." To meet this objective as well as the increasing demand for legally-trained compliance officers, UConn School of Law proposes to create a specialized master of laws (LLM) degree program open to students who have a JD or a foreign law degree, and who wish to supplement their first degree in law with an advanced degree in the law of GRC.

This program will focus on the specifically legal dimension of GRC, thus complementing rather than duplicating the combined law-management focus of our existing 12-credit Professional Certificate in Corporate and Regulatory Compliance (PCCRC) that the School of Law offers jointly with the UConn School of Business.

A key advantage of the LLM as opposed to a certificate is that foreign applicants can obtain student visas for a degree program but not for a certificate program. It is also our experience that certain legally-trained professionals, including those with a first degree from a foreign institution, seek a deeper and more legally-oriented introduction to field of GRC. This 24-credit LLM program serves that core purpose, while also offering an outlet for domestic mid-career legal professionals and holders of the PCCRC to pursue more in-depth study of a specifically legal character in the GRC field.

Request for New UConn Academic Degree Program

General Information

Name of degree program:	Master of Science (MS) Financial Technology (Fintech)
Name of sponsoring Department:	OPIM and Finance
Name of sponsoring College:	School of Business
Campuses:	Hartford, Stamford
Contact persons:	John Wilson
Type of Proposal:	New
Type of Program:	Master of Science
Anticipated Initiation Date:	Spring 2022
Program Payment Type:	Fee-Based
CIP Code:	52.1399: Management Sciences and Quantitative Methods, Other.

Justification for the New Program

Ongoing technology innovations are disrupting existing structures of the financial services industry. Technologies such as blockchain, cryptocurrency, peer to peer lending, mobile payment systems, robo-advising, and automated insurance underwriting are all redefining the way in which financial services are offered and consumed. While the disruption is often promulgated by tech start-ups, other enterprises that would not be traditionally considered financial services providers are entering the fray. Included among them are heavyweights such as Apple, Google and Amazon. Either through innovation or acquisition, these titans have started offering an array of financial services that are reliant on technology that reduces friction and cost for the end consumer, be it business or individual. As a result, many traditional financial firms are rethinking the way they need to do business. These new paradigms are also changing the skill set that companies are seeking. Increasingly, technologists are given preference over students with only financial backgrounds (<https://www.linkedin.com/pulse/essential-fintech-skills-2016-jared-butler/>). However, it is reasonable to conclude that students that have the combination of technical and financial skills will be highly coveted. That is the impetus for a program such as this to be developed.

As part of our educational mission as the Flagship University in the State of Connecticut, the UConn School of Business plays a pivotal role preparing students for this evolving process. We already feature a popular finance major, deep expertise in data analytics, and a location that facilitates the placement of many students at financial employers in Manhattan, Fairfield County, and Hartford. The UConn Fintech program will coordinate and enhance these attributes to increase the technological relevance of current and prospective employees in close alignment with the needs of industry. In addition to the job placement advantages of UConn's existing

locations, there are local eco-systems and UConn Centers of Excellence that can be leveraged to enhance the image and appeal of the Fintech program. In Hartford, there is an InsurTech incubator program that is attracting startups from all over the world. LaunchHartford is an initiative to further develop the area as a corridor of technological innovation, particularly in the insurtech space. Both programs already have affiliations with the university, so the transition to include the Fintech program in various initiatives should be easily facilitated. Stamford has the advantage of being proximal to several hedge funds and other large scale financial services firms.

By utilizing UConn's existing geographic strengths, the program has the ability to reach several of the key industry stakeholders. In addition to marketing the new program to industry, UConn will also be able to leverage existing academic constructs such as our Center for the Advancement of Business Analytics (CABA) and Connecticut Center for Entrepreneurship and Innovation (CCEI). Each of these programs already has strong relationships with many companies and with the proposed program, would be able to develop additional relationships by offering a high demand, low supply talent pool. Further, they are each well positioned to facilitate the marketing message to both companies and potential students.

Are there similar programs in CT or elsewhere?

Currently, there are a variety of institutions that offer either specific courses or certifications in Fintech. However, only a handful have developed full graduate programs. Outside of the United States, there are a variety of programs available in Hong Kong, the United Kingdom, and France. However, in the United States, only a few institutions offer full Graduate Programs focused specifically on Fintech. Brandeis University offers an MS – Digital Innovation for FinTech. It is a 30 credit fully online program. The curriculum is focused primarily on technology with little evident content focused on Finance. (<https://www.brandeis.edu/gps/student-courses/programs/listings/fintech-digital-innovation.html>)

Duke University offers a Master of Engineering Degree in Financial Technology. The 30 credit program consists of 2 business courses and several technology courses. It is offered both online and in person. (<https://fintech.meng.duke.edu>). Santa Clara University offers a MS Finance and Analytics Program, both online and in person. The program is 36 credits and features a blend of courses in technology and finance. The program has a list of prereqs consisting of calculus, statistics, linear algebra, R and Python. The linear algebra, R and python courses are offered online. (<https://www.scu.edu/business/graduate-degrees/admissions/ms-programs/ms-finance-and-analytics/>) There are no in-state programs offering exclusive graduate degree programs in Fintech.

What are the desired learning outcomes of the program?

Master of Science in Financial Technology (Fintech)

At program onset, learning outcomes will focus on the integration of technology and its application in financial services and related industries. Students who successfully complete the program will demonstrate proficiency in the following areas: -data preparation, predictive modeling, model assessment, and model implementation -design and management of business processes with the implementation of existing nascent technologies -coding ability in Python and R -blockchain and cybersecurity principles -understanding of fintech ecosystems, API, venture capital and entrepreneurship -financial management principles

Program Description

The program will be a 36 hour program with in person course delivery. It will consist of a mix of analytics, technology and business courses and is intended to prepare the student for entry into the Financial Services Technology world, which may include areas such as Fintech, Insurtech, Medtech and Regtech. The ideal student will have strong aptitudes for business, technology and coding and will have an entrepreneurial mindset.

Proposed Graduate Catalogue Copy

The Master of Science in Financial Technology (MS Fintech) is designed to meet the growing demand for professionals who can harness advanced business analytics, technology solutions and financial services skills to address existing business problems. Skills developed in the program will allow students to create new opportunities for small to global enterprises in information-rich environments including Fintech, Insurtech, Medtech, and Regtech. Students must complete 36 credits to fulfill all degree requirements. The program will be in person and can be completed on a full-time or part-time basis.

All students must take the following required courses: FNCE 5710, 5711, 5712, 5720; OPIM 5603, 5604, 5512, 5513

The remaining credits come from electives. The following electives have been approved for meeting degree requirements: FNCE 5721, 5722, 5757, 5352, 5353; OPIM 5514, 5272, 5501, 5671, 5509.

Additional courses may be used to meet degree requirements with the consent of the program director.

Faculty Involvement

Faculty will be primarily derived from 2 departments in the School of Business; Operations and Information Management (<https://www.business.uconn.edu/contact/opim/>) and Finance (<https://www.business.uconn.edu/contact/finance/>)

Enrollment and graduate projections

It is expected that enrollment will be 40-60 per semester on a rolling basis, with a fully operational census of 100-150 students at any given time.

Program Evaluation

The program will be evaluated routinely and at regular intervals under the AACSB accrediting process. Internally, the program will be evaluated in each of the following ways: i) course content, classroom instruction, administration and grading will be evaluated each semester by registered students using the standard process and questionnaire currently in place for School of Business courses, ii) course content, rigor, and overall implementation will be evaluated for each course by the department head and academic director, both working in close conjunction with the instructor(s), and iii) alums and managers at hiring companies will be surveyed to monitor program quality and content.

Program Administration

Administration will consist of an academic director and a program manager. It is anticipated that for launch, initial administrative duties will be handled by existing resources within the School of Business.

Funding and Financial Resources Needed

A preliminary budget for outside support covers several new initiatives:

- Program Manager (full-time) to coordinate the recruitment, educational progress, and placement of students involved in the Fintech program – including all fringe benefits, this requires approximately \$125,000 per year. We believe other administrative support can be provided by existing programs in conjunction with the Fintech Program Manager.
- Supplemental compensation for an academic director. This would be a full time faculty member with strong teaching credentials and strong relationships within the industry. Estimated cost of up to \$40,000 per year.
- Graduate Assistants, student workers, or summer interns hired to develop and design communications with Fintech industry participants, including summaries of relevant recent research and reports of student engagement. We envision 1-3 students at a cost of up to \$60,000 per year.
- Recruiting and promotional budget – approximately \$15,000 per year.
- Event hosting and transportation for students to industry sites – approximately \$20,000 per year
- Travel budget for Director travel to relevant industry conferences – approximately \$20,000 per year. The total annual cost for all of these activities is \$280,000. We envision an initial five-year commitment that adds up to \$1.4 million. Initial funding will be derived from University School of Business resources and outside donations. It is anticipated that these costs will eventually be defrayed by course fees. Consistent with

current university policy, the fees from students matriculated into the MS Fintech program will be accounted for within the program.

Other Resource Needs

It is anticipated that existing facilities and equipment will be sufficient for the program.

Consultation with other potentially affected units

As noted herein, the new program will leverage existing courses, primarily from OPIM and Finance. While there may be some enrollment impact in both the MS-BAPM and FRM programs, it is not anticipated that it will be of a magnitude to cause concern. There are several reasons for this. First, both the BAPM and FRM programs are receiving applications at a high rate. While some of those applicants may express a preference for the new program, there is still a sufficient pipeline of qualified applicants for the existing programs. Second, the profile of the intended student is a bit different than either FRM or BAPM. FRM is reliant on quantitatively minded students with a strong aptitude for business, whereas BAPM students tend to be more technically proficient. The profile anticipated for this program will be a student that demonstrates a strong aptitude for BOTH business and technology, and a student with an 'entrepreneurial' mindset.

While it is feasible to consider simply adding concentrations to existing degree programs, there are several reasons why a fully vetted degree program is a better option. First, a degree program allows for greater flexibility in ensuring that content and learning outcomes are consistent. This is important in the conveyance of skills that employers can expect program graduates to have mastered. Second, the implementation of a program allows for a much stronger marketing message than what a concentration would facilitate. The program implies that the curriculum is carefully thought out to address the needs of relevant industry and their desire to incorporate Fintech related skills into their organizations. Third, curriculum changes and evolutions are expedited when there is an existing relationship between industry and a program. By having a program singularly responsible for updating curriculum, flexibility to address evolving learning needs is enhanced. Fourth, a program allows for easier integration with existing ecosystems, be they at the local, state or national level. For example, the ability of Hartford or Stamford to co-brand their Fintech initiatives with that of UConn creates an inviting atmosphere where employers and potential students can easily perceive coordination and opportunity.

Who can apply to this program?

Internal applicants (current UConn students enrolled in another UConn degree or certificate program), External applicants (individuals who are not currently UConn students)

Anticipated term and year of first enrollment

Spring 2022

Admission Requirements

Admission to the program is expected to be competitive. Minimum requirements will include:

- Completed application for admission.
- Official transcripts from all colleges and universities at which the applicant has completed course or degree work.
- Completion of a one-semester college-level calculus or statistics course with a grade of “C” or better.
- An undergraduate degree (B.S. or B.A.) from a 4-year program at an accredited university or college.
- A minimum undergraduate grade-point averages (GPA) of 3.0 for either all 4 years or for the last 2 years.
- GMAT (Graduate Management Admission Test) or the General Test of GRE (Graduate Record Examination). There are no specific minimum scores on these test scores. A high score can improve the competitiveness of your application.
- Foreign National applicants must meet the English Proficiency requirement for admission set by The Graduate School. TOEFL (Test of English as a Foreign Language) – minimum overall score of 79 (Internet –based test- iBT), 550 (Old Paper-based test, PBT) or 22/30 on each of the Listening, Reading, Writing sections (“New” Paper-based test- PBT) or higher o IELTS (International English Language Testing System) minimum overall score of 6.5 or higher o PTE (Pearson Test of English) minimum overall score of 53 or higher o Duolingo minimum overall score of 100 or higher o Qualifying for a Score Waiver by The Graduate School.

Term(s) to which students will be admitted

Fall, Spring, Summer

Application deadline: Unsure at this time

Initiator & Program Director

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