

# Industry Futures 2021: Fintech

Unpacking the Fintech Sector and How Universities Can  
Prepare Students for an Emerging Field

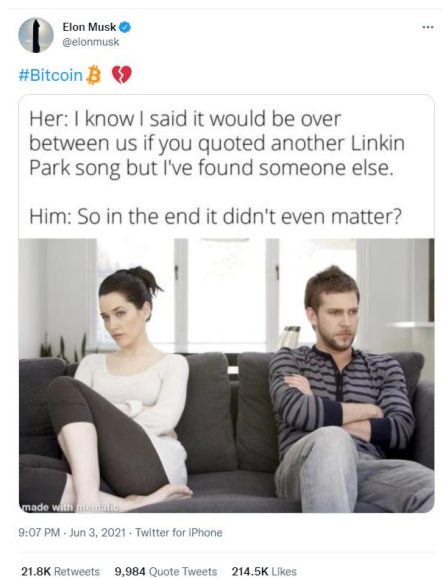
# Fintech No Longer Fringe Internet Phenomenon

2

Accelerated by Covid-19, Fintech is Now a Part of Our Daily Lives



*Bitcoin falls after Elon Musk tweets breakup meme*  
-June 4, 2021



“

There are huge segments of the population that are underserved or ignored by current financial services players. **Fintech is changing all of that by decreasing costs, increasing access and improving experiences** for financial products and services.

**Forbes**

-October 18, 2021

”

Source: Contreas, Isabel, "Fintech Investments Have Hit \$91.5 Billion In 2021, Nearly Doubling Last Year's Total," *Forbes*, October 21, 2021; Musk, Elon, [Twitter Post](#), June 3, 2021, 9:07 PM; EAB interviews and analysis.

# It's Not All Memes—Fintech Is Here to Stay

## US Actually Lags Rest of the World in Fintech Adoption

### TIME

How **London** Became a Global Center for Fintech What U.S. Tech Hubs Can Learn From It

-October 1, 2021

### INSIDER

**France** is now Europe's third-biggest fintech hub-and it's gunning for the UK's top spot

-Sep 24, 2021

### Entrepreneur

How **Hong Kong** Stands Out as a Top Fintech Hub

-Sep 27, 2021

### THE TIMES OF INDIA

**Singapore** emerges as the new crypto hub in East Asia

-Oct 13, 2021

### BROOKINGS

Mobile money dominates fintech investment in **Africa**

-Sep 20, 2021

### TC TechCrunch

**Mexico's** fintech success: How tech is driving the population to banking

-Oct 19, 2021

### crunchbase news

Fintech Success in **Latin America** Opens Doors for US Venture Funds

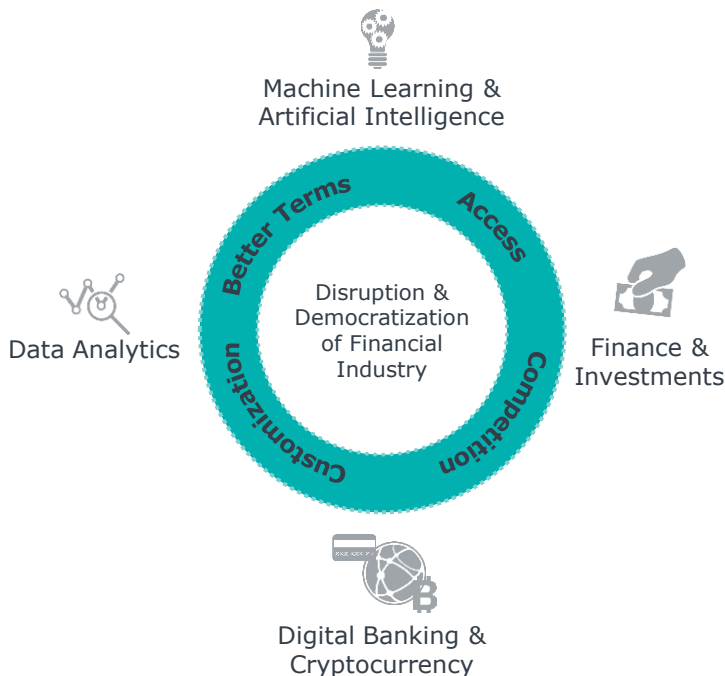
-June 7, 2021

## How Do We Know It's Not Just a Trend?

- **Funding** is still on the rise and emerging from new areas
- Rate of **IPOs and acquisitions** is increasing
- In a global PWC survey, **75%** of financial services execs said they **are creating fintech jobs**
- **New CPA licensure exam** incorporates technological innovations

# Fintech 101: Disrupting Financial Services

## A Broad Range of Elements and Implications for Many Industries



## Companies in the Fintech Space

- Digital Banks ▶ **ally**
- Robo-Advising & Stock Trading ▶  **robinhood**
- Mobile Payments ▶  **PayPal**
- Insurtech ▶ **Lemonade**
- Peer-to-Peer Lending ▶  **Upstart**
- Blockchain & Cryptocurrency ▶ **coinbase**

**But now, all banks are fintech**

**WELLS FARGO**

Send Money with **zelle**

SEND

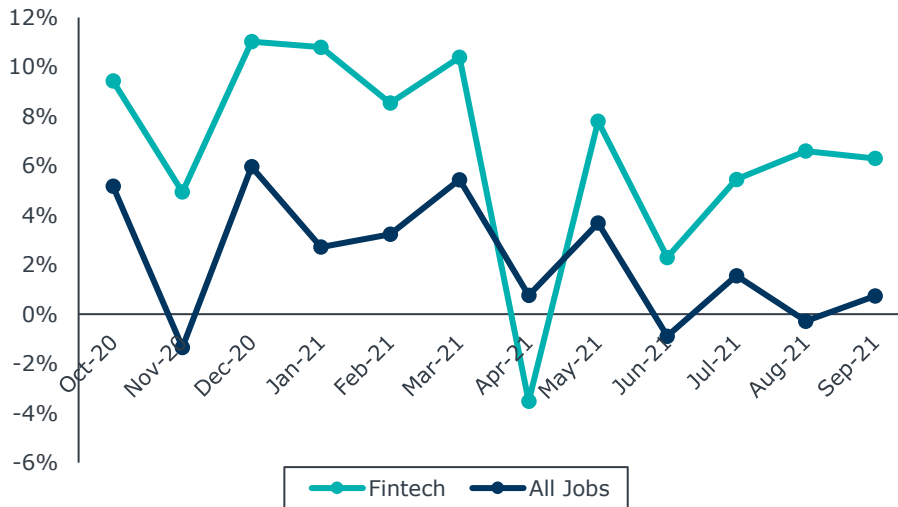
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# Job Outlook Stronger Than National Average



## Fintech Job Growth Vs. US National Job Growth

Month-to-Month Job Change, October 2020-September 2021



7%

Average Monthly  
**Fintech** Job  
Growth

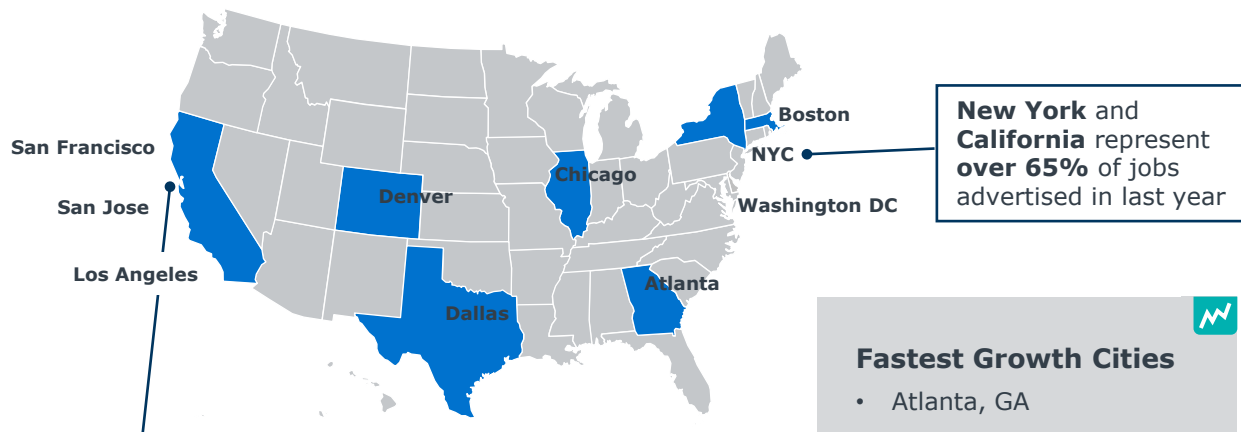
2%

Average Monthly  
National Job  
Growth

# Fintech Job Growth Is Regionalized But Expanding

Finance and Tech Hubs Currently See the Majority of Jobs

## Top Ten Cities by Number of Job Postings Requiring Fintech Skills



**New York** and **California** represent **over 65%** of jobs advertised in last year

Silicon Valley has **more fintech startups** than anywhere else in the world

**\$87,488**

Median salary of US-based fintech jobs

**Fastest Growth Cities**

- Atlanta, GA
- Austin, TX
- Chicago, IL
- Dallas, TX
- Phoenix, AZ
- Salt Lake City, UT

1) % Change in Job Postings Over the Last Five Years. Excludes states with fewer than 1,000 job postings.

# What's In a Name?



Job Titles and Skills Show Range of Emerging Needs



## *Representative Job Titles in Fintech Industry*

Financial Analysts  
Accountants

Product Managers  
Business Development Officer  
Analytics Managers  
Relationship Managers

Data Scientists  
Software Engineers  
Machine Learning Engineer  
Digital Finance Manager

## *Representative Hard Skills in Fintech Industry*



Financial  
Services



Scalability



Product  
Management &  
Development



Programming  
Languages



Machine  
Learning

# If You've Seen one MFE, You've Seen One MFE



## No Consistent Academic Home for Fintech Programs

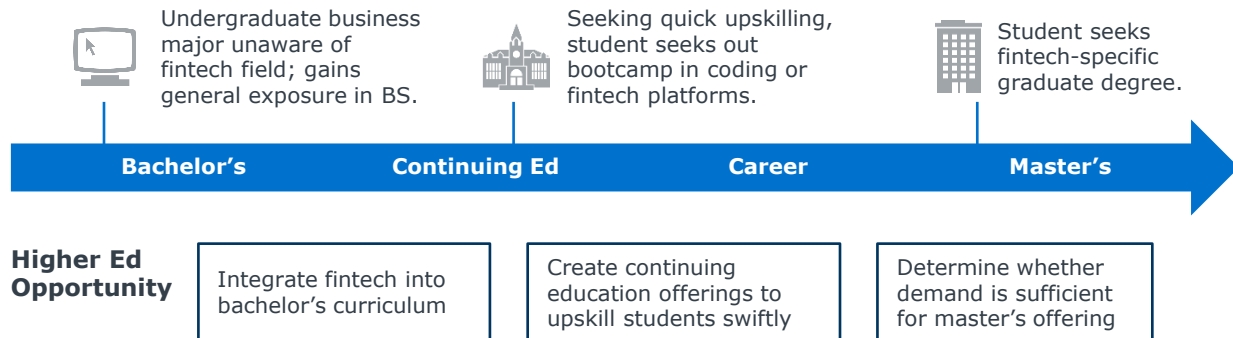
### Master of Financial Engineering (MFE) Details at Three Institutions

	<b>Baruch</b> COLLEGE	<b>Duke</b> UNIVERSITY	<b>Berkeley</b> UNIVERSITY OF CALIFORNIA
<b>Program Owner</b>	School of Arts and Sciences (Math)	School of Engineering	School of Business
<b>Entry Requirements</b>	Courses in calculus, probability, linear algebra, C++, and finance	Bachelor's in engineering or science	Background in finance, economics, or other quant fields
<b>Required Courses</b>	<ul style="list-style-type: none"><li>• Financial Markets and Securities</li><li>• <b>Software Engineering</b></li><li>• Numerical Methods</li><li>• Probability and Stochastic Processes</li></ul>	<ul style="list-style-type: none"><li>• Business Fundamentals for Engineers</li><li>• <b>Financial Institution Products &amp; Services</b></li><li>• Software Engineering</li><li>• Management of High-Tech Industries</li></ul>	<ul style="list-style-type: none"><li>• Investments &amp; Derivatives</li><li>• Empirical Methods in Finance</li><li>• <b>Stochastic Calculus</b></li><li>• Financial Data Science</li><li>• Fixed Income Markets</li></ul>



# The Student Journey in Fintech

## Representative Student Journey in Fintech Upskilling and Employment



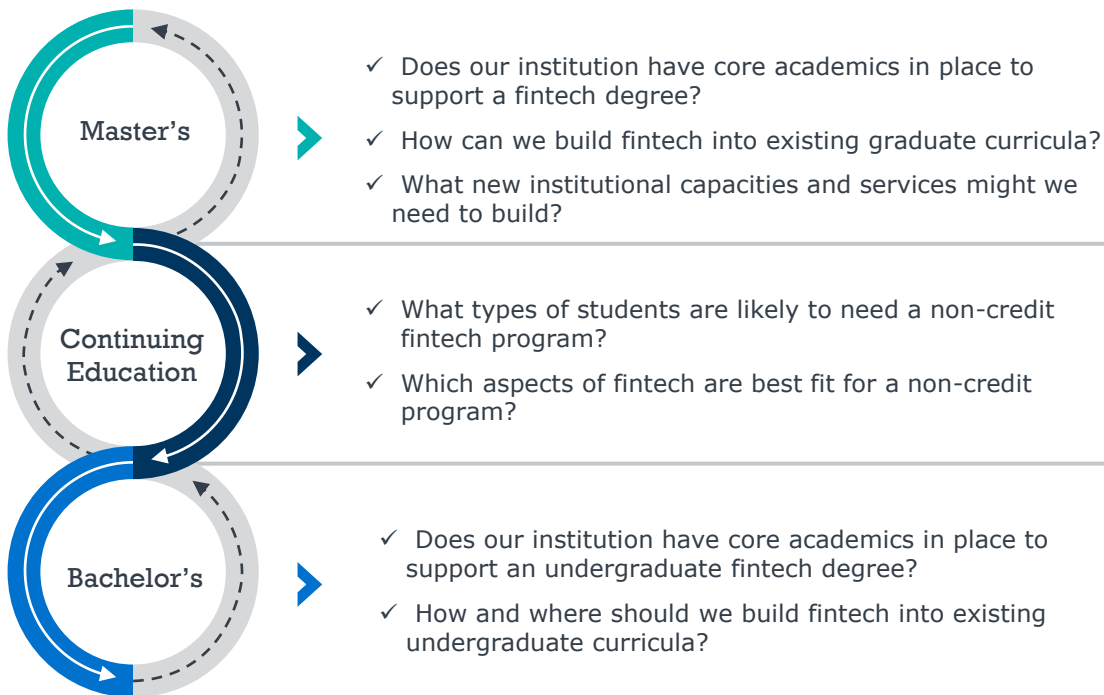
### Consider Stackability in Building Fintech Offerings

- Students likely to cycle in and out of offerings multiple times
- Hot job market means students may stop out; microcredentials offer something to take away and encourage return for completion if stackable

# Our Focus Today



## Questions to Consider for Fintech Programs at Every Level



# Master's-Level Fintech Programs



- ✓ **Decision framework:** Is a fintech masters degree right for your institution?
- ✓ Holistic approaches to grad-level fintech
- ✓ Other ways to build post-bacc fintech



- ✓ Bootcamps
- ✓ Executive Education
- ✓ Alternative Providers



- ✓ Building an undergraduate degree in fintech
- ✓ Incorporating fintech across the curriculum

# Starting at the Top



## Graduate Programs the Best Opportunity to Meet Demand, Attract Students

# 25%

Of fintech job postings require a master's degree, compared to 12% of Financial Services and 6% of Technology jobs

### Easier to Capture Program Interdisciplinarity

Graduate programs lend themselves better to cross-disciplinary coursework integration due to easier cost and credit sharing between units



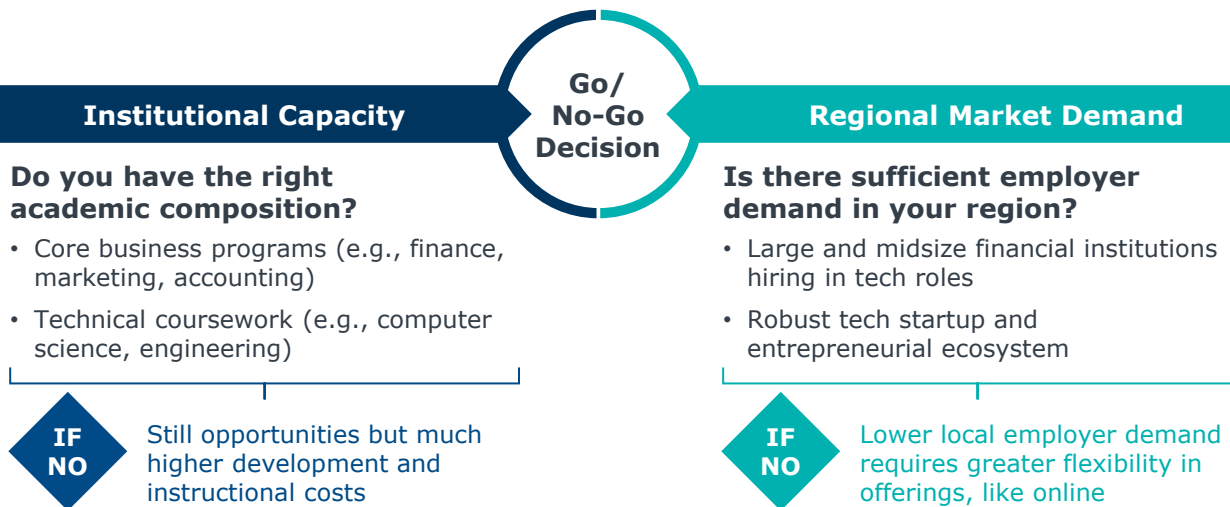
### Greater Opportunities for Flexible Offerings

Given the urban concentration of fintech jobs, online and hybrid options are highly desired among prospective students

### Higher Interest among International Students

With the inclusion of technical coursework, fintech programs meet STEM requirements sought by international students

# Clearing the Runway for (Program) Launch



## The Wild Card: Interdisciplinary Curriculum and Faculty Flexibility

Faculty willingness to respond to industry demand and institutional opportunities can make or break programming offering decisions. Ensuring faculty have all the information (e.g., employer demand, market projections, student interest) to make informed decisions can increase their interest in developing new cross-disciplinary offerings.

# Staking a Claim Between Fin and Tech

## Focus and Intensity Determines Prerequisites and Student Pipelines



### Business Focus

- Fewer prerequisites
- Larger potential pipeline
- Shorter time to completion
- Only slightly above average career opportunities



### Balanced Focus

- Some prerequisites
- Midsize potential pipeline
- Average time to completion
- Above average career opportunities



### Tech Focus

- More prerequisites
- Smaller potential pipeline
- Longer time to completion
- Significantly above average career opportunities

## Seneca

### Financial Technology Graduate Certificate

- No prerequisites (beyond a bachelor's degree)
- Focus is on product development
- Prepares students to be "liaisons" between finance and tech capabilities



### MS in Digital Innovation for Fintech

- Requires general finance or economics background
- Focuses on fundamentals of emerging fintech areas
- Prepares students to add technological knowledge to traditional business processes



### MS in Mathematical Finance and Financial Technology

- Heavy quantitative prerequisites
- Focus on intersection between quantitative analysis and technological systems
- Prepares students to add computational methods to traditional business processes

# Experiential Learning Opportunities a Must



Rapidly Evolving Field Means All Students Must Have Equal Access

## Representative Experiential Learning Opportunities for Fintech Programs

**Membership-based student club** partners with venture capital firm to host hackathon

Program **requires students to complete summer internship**

Institution invites **industry experts** to present to students

Students required to complete **group projects** and/or participate in **case competitions**

## Recommendations to Provide Equitable Access

- Waive or discount fees
- Provide “career closet” so students have access to business attire
- Provide grants for students seeking low/unpaid opportunities at newer, diverse startups
- Add mandatory seminar on interview skills, networking, resume design, etc.
- Ensure speakers offer diverse backgrounds and perspectives
- Assign students to diverse teams

# Three Alternatives to New Master's Offering



1

## Add Individual Course

- All graduate programs should incorporate fintech into curriculum
- Can start with interested faculty to develop course; track student interest to determine whether and how to expand offerings

**Stanford**  
LawSchool

"The Future of Finance"

 **Columbia Business School**  
AT THE VERY CENTER OF BUSINESS™

"Fintech: Consumer  
Financial Services"



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2

## Create Specialization or Track in Existing Program

- Best suited to institutions that do not currently have strong business and technical programs and decent labor market demand
- Add fintech coursework to create dedicated track in existing program

 **NYU | STERN**

- Full-time MBA students can select up to three specializations, including Fintech
- More detail [here](#)

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- More detail [here](#)

2

## Add Individual Course

- Best suited to institutions with less mature business/technical programs and/or see limited demand for Fintech skills in region
- Identify interested faculty and develop course; track student interest over time

### Stanford Law School

"The Future of Finance"

3

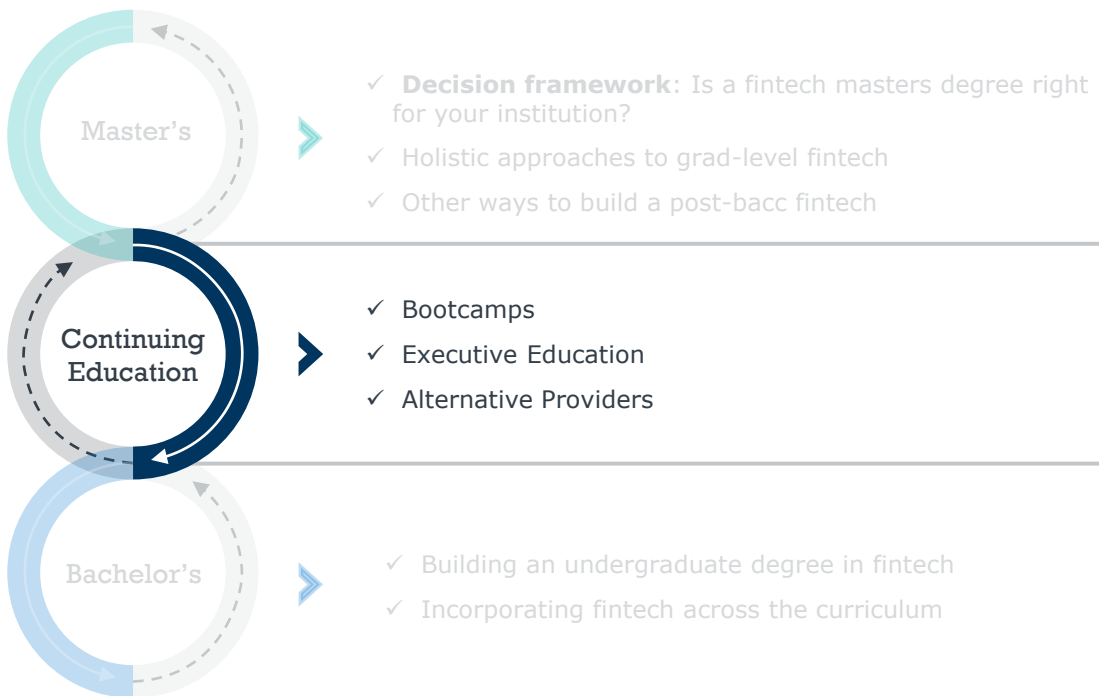
## Developing: Specialized Fintech Degrees (e.g., Bitcoin)

- EAB's Market Insights team seeing growing interest in niche Fintech topics
- Leaders must weigh program appeal today with curriculum longevity; only consider if market demand and existing strengths align

### Discussion Prompts

Has your institution considered launching specialized Fintech degrees?

What format would this take? Credit vs. non-credit?  
Online vs. in person?  
Adjuncts vs. existing faculty?



# Two Opportunities in Continuing Ed

## Executive Education Likely a Short-Lived Revenue Opportunity



**Bootcamps** likely to appeal to early career professionals; ongoing opportunity as field continues to evolve



### **Southern Methodist University's [Fintech Bootcamp](#)<sup>1</sup>**

24-week part-time remote bootcamp for working professionals; program offered in partnership with 2U's Trilogy



**Executive education programs** can bring senior leaders up to speed; short-lived opportunity as workforce catches up on Fintech, execs retire



### **University of the Sunshine Coast's [Fintech for Managers](#)**

3-module course for business and finance people who need intro to fintech field and how it is changing their industry

1) Program offered by the Continuing and Professional Education division.

# Consider Your Low-Cost Competition

## Alternative Providers Already Have A Variety of Fintech Offerings

**coursera**   
**ONLINE**


**Fintech Foundations**

Four months (1 hr/wk), \$59/month or \$236 total.

**edX**   
**TEXAS**  
The University of Texas at Austin

**Fintech: The Future of Finance**

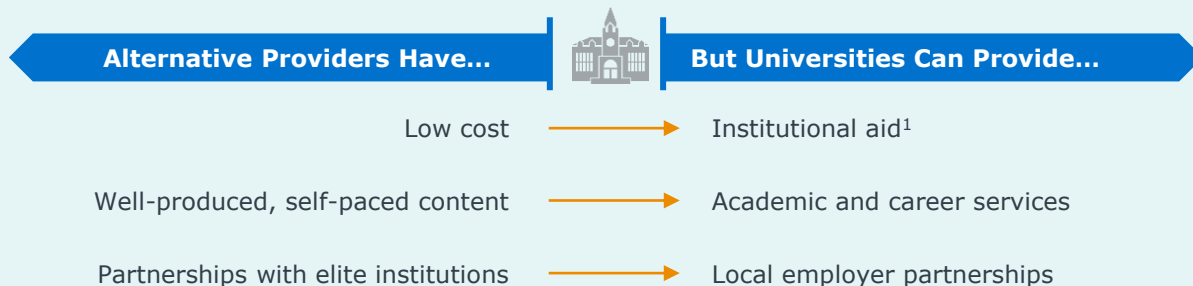
Four months (4-6 hrs/wk), \$2,592 to earn certificate.

**esme**   
LEARNING **Saïd Business School**

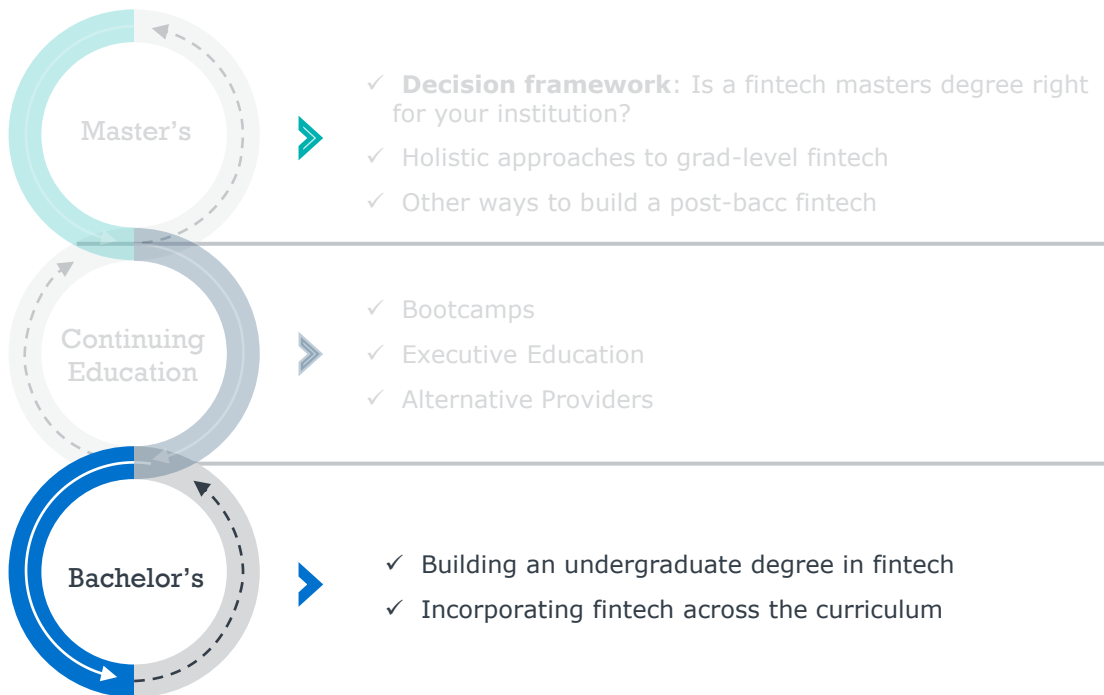
**Fintech Programme**

Six weeks (7-10 hours/wk), \$3,671.

## Recognizing Higher Education's Unique Value Proposition



1) Certificate programs generally not eligible for state or federal student aid.



# Undergraduate Fintech Programs Emerging

Variations Parallel Master's Space, Some New Cautions Apply

## More Business/Finance Focus



BS Financial  
Technology

Creighton  
UNIVERSITY

BS Business  
Administration -  
Fintech

## More Technical Curricula



Fintech BSc



BS Financial  
Technology

## Traits of Undergrad Fintech Degrees

- Most programs housed in business school with interdisciplinary content
- Business/tech content mix varies widely
- Existing institutional strengths in business/finance and in technical fields still essential
- Emphasis on internships and co-curriculum as core program elements
- Marketing focus on hot job market /industry demand

## Considerations Before Pursuing Undergrad Fintech Degree

- Regional job outlook potentially less critical for undergraduate programs
- Job listings in fintech are disproportionately at Master's level
- Undergraduate-level job postings in fintech tend toward technical skills, not finance or "translation" role

Need for Undergrad Degree Limited; Need for Fintech Skills Great

1

## Coding in Business Degrees

- All business and finance majors should have added business analytics and big data courses already
- Further enhance business degree with required coding course (e.g., Python)

2

## Fintech Electives

- Create fintech electives available to students in a variety of majors
- Monitor enrollments to provide data on potential need for fintech degree at your institution

3

## Fintech Projects & Cases

- Work with faculty to strategically build projects and case studies around fintech topics into core coursework
- Exposes students to fintech concepts and skills without requiring full course build

4

## Co-Curriculum & Services

- Invite fintech-focused guest speakers or hold fintech career fairs
- Support student fintech club
- Consider more intensive experiences like hackathons, fintech case competitions, etc.



# Further EAB Resources on Industry Futures



## Watch the Digital Revolution Recap

Review the technological trends shaping the future of industry talent needs.



## Explore the Industry Futures Webpage

Read the latest insight pieces and past reports.



## Request a **subject matter expert call**

Connect with one of our expert researchers to go deeper on this content in relation to your institution's specific needs.

## **Brief Post-Session Poll**

*Thank you for your participation today.  
We appreciate your feedback on this material.*