College of Lifetime Learning Proposal

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What is Lifetime Learning?

Lifetime learning is a longitudinal perspective on teaching, learning, and workforce development.

Example of job for degree earners:
Chief Learning Officer who must constantly upskill/reskill a large and varied workforce.

Past 5 years:
37% of skills needed in average job have changed.

Next 10 years:
Nearly all jobs will be affected by automation.

Employers are seeking new roles to meet business strategy via their employees' talents; a new field is emerging that blends digital technology with learning sciences, policy, and business acumen.
A new college is needed to meet this need.

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College of Lifetime Learning Mission

The college will study the process of learning throughout the lifetime as impacted by technology, economics, policy, geography, and societal and workforce needs.

We will apply our research knowledge as we design programs to prepare traditional students, workforce, and k-12 students for a lifetime of continuous learning.

The lessons learned in our teaching will further drive innovative research. The College of Lifetime Learning will work through research, curriculum creation, and innovative delivery methods to transform the learning ecosystem.

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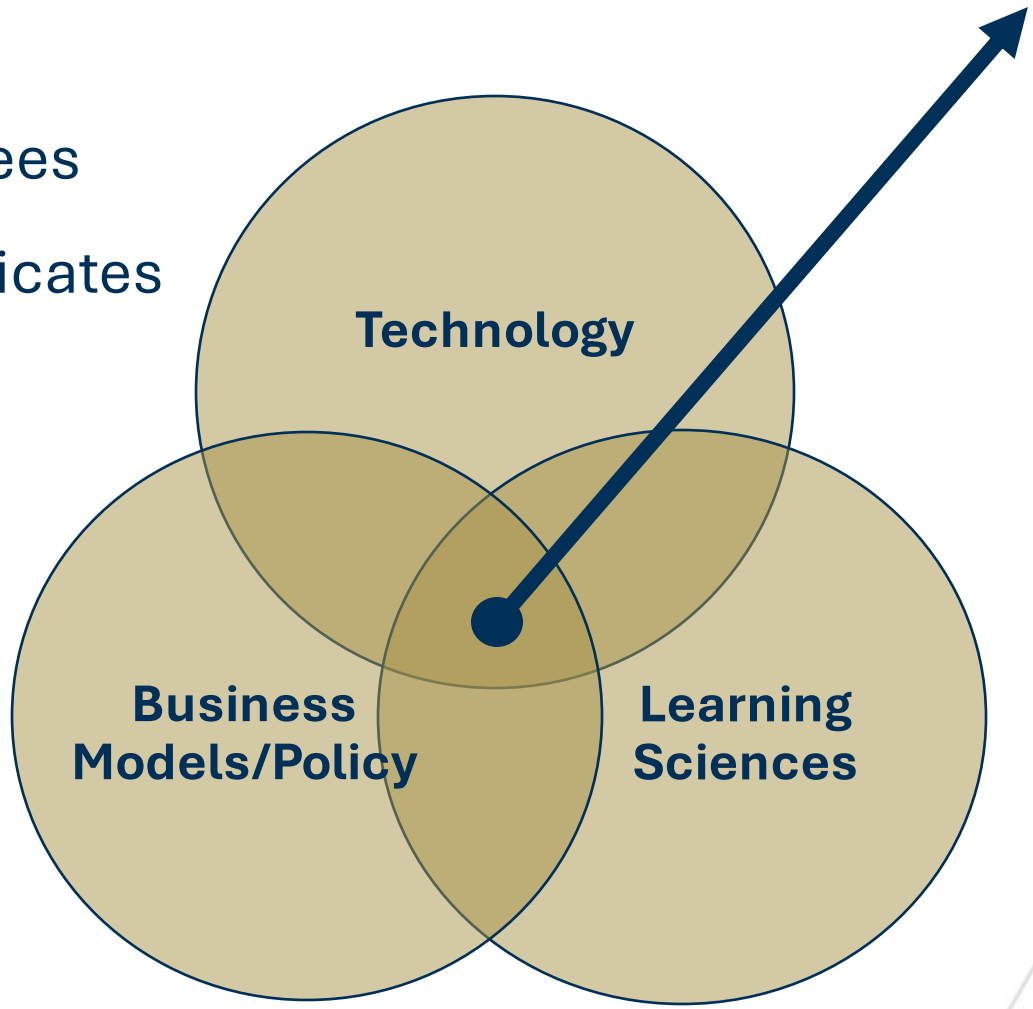
Academic Programs

Offerings

- Graduate Degrees
- Undergraduate Degrees
- Credit-Bearing Certificates
- Minors



Core Topics

- Learning Environments
- Instructional Design
- Student Support & Advising
- Learning Science
- Psychology of Learning
- Educational Related Public Policy
- Data Privacy
- Economics
- Data Gathering, Analytics, and Visualization
- Systems Thinking
- Working in Multidisciplinary Teams
- Design Thinking
- Measurement, Evaluation, and Assessment
- Statistics
- Education Business Policy and Operations
- Program and Project Management
- Coding

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Existing and Related Programs

Existing Related Programs

- Boston College – Learning Engineering
- Carnegie Mellon – Educational Technology and Applied Learning Sciences
- Stanford – Education Data Science, Learning Design and Technology
- Michigan – Learning Technologies and Environments
- Vanderbilt – Learning and Design
- Oxford – Learning and Teaching
- Florida State – Instructional Systems and Learning Technologies
- Penn State – Learning Design and Tech, Lifelong Learning and Adult Ed.
- Indiana University – Instructional Systems Technology
- UT Austin – Learning Technologies
- University of Minnesota – Learning Technologies

Related USG Programs

- GSU – Learning Sciences (Instructional Design and Technology)
- UGA – Learning Design and Technology (LDT),
- Kennesaw – Instructional Technology (M.Ed.), LDT (BS)
- Georgia Southern – Instructional Technology (M.Ed., Ed.S.)
- West Georgia – Instructional Technology Media and Design
- GCSU – Instructional Technology
- Valdosta State - Instructional Technology

Existing Programs in Learning Science

- Northwestern
- Arizona State
- Harvard
- U. Penn
- Western Governors
- University of Miami
- University of Maryland
- University of Washington
- University of Wisconsin-Madison
- University of Colorado Boulder
- University of Pittsburgh
- Univ Central Florida
- UC Berkeley
- UC Irvine
- UCLA

Idea 1:
MS in Lifetime Learning

This degree will create leaders who have the technology acumen, the learning sciences background, and business attributes where the learning enables educational and/or business strategy to be successful.

Graduates of this program could enter fields of:

- Chief Learning Officer
- Sr. Manager Learning Strategy
- Manager Continuous Learning
- Sr. Learning & Development Specialist
- Learning Engineer
- Director of Learning & Development
- Education Policy Analyst

Possible Curriculum

Required Courses:

- Learning Sciences and Theories across a lifetime
- Instructional Design
- Educational Technology Integration
- Human-Computer Interaction in Learning
- Assessment and Evaluation
- Machine Learning and AI in Education
- Capstone Project or Thesis

Elective Courses:

- Cognitive Psychology
- Learning and Memory
- Psychology of Aging
- Data Analytics in Education
- Ethics and Policy in Learning Technologies
- Learning Experience Design

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Idea 2:
MS in Learning Engineering

This degree will create people who can lead learning systems architecture for effective and efficient learning along a person's lifetime.

Graduates of this program could enter fields of:

- Learning Systems Architect
- Learning Platform Analyst
- Learning Leader
- Manager of Excellence Learning Design
- Assessment coordinator

Possible Curriculum

Required Courses:

- Psychology of Learning
- Instructional Design
- Learning Systems Analysis
- Learning Systems Engineering
- Operational Strategies for Business of Education
- Design Studio
- Introduction to User Interface Design

Elective Courses:

- Project Management
- Scaling Learning Solutions
- Intro to Learning Research
- Program Evaluation
- Learning Analytics
- Advanced Technologies for Learning
- Assessing Learning Outcomes
- Universal Design for Learning
- Learning in Adults (Andragogy)
- Leadership in Learning Engineering
- Educational Technology – Foundations
- Cognitive Psychology
- Introduction to Engineering Psychology
- Systems Thinking

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Idea 3:
MS in Technology (or AI) Augmented Learning

This degree will provide expertise in developing and using technology for effective learning.

Graduates of this program could enter fields of:

- Learning Designer
- Learning Developer
- Software Engineer Instructional Applications
- Educational Technologist
- Learning Analytics Specialist
- User Experience research for educational technologies
- Digital Content Creator
- Technology Integration Specialist

Possible Curriculum

Required Courses:

- Psychology of learning
- Foundation of learning technologies
- Online design & pedagogy
- Introduction to AI
- Introduction to Machine Learning
- Human-AI Interaction
- Data Architecture for Learning
- Assistive Technologies

Elective Courses:

- Generative AI
- Using AR/VR/XR in the classroom
- Foundations of Game-based learning
- Integrating games into pedagogical content
- Evidence-based program evaluation
- Cognitive Psychology
- Concepts of data privacy
- Instructional design & development
- Human Computer Interface Design and Evaluation

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Idea 4:
MS in Learning Analytics

This degree will provide students with skills to collect, analyze, and interpret large datasets related to learning to improve learning outcomes, inform policy, and enhance teaching and learning practices.

Graduates of this program could enter fields of:

- Learning analyst
- Educational data scientist
- Learning analytics consultant
- Learning technologies developer
- Policy advisor in education

Possible Curriculum

Required Courses:

- Computing for Data Analytics
- Introduction to Analytics Modeling
- Business Data Preparation & Visualization
- Methods in Educational Data Mining
- Foundations of Qualitative & Quantitative Research Methods
- Assessment data
- Ethical considerations when using learning data

Elective Courses:

- Using Data to Understand Educational Systems
- Learning experience data
- Foundations of Artificial Intelligence in Learning Analytics
- Applications of Artificial Intelligence in Learning Analytics
- Educational policy & data
- Psychological Statistics

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Market Demand

Learning engineering and educational technology is considered a growth sector:

- Rapid technological advances
- Increasing demand for corporate and lifetime learning
- Personalized learning
- Data-driven decision making in education
- Regulatory and accreditation changes

U.S. Bureau of Labor Statistics:

- Learning and Development Manager jobs to grow 15.3% over next decade (BLS)
- When coupling these roles with data science and digital technologies specialties, BLS growth rates are as high as 31% from 2020-30
- 73.5% of 14k related degrees were at the MS level last year

Accenture purchase of Udacity:

- Supports a $1B endeavor

Accenture data from Phase I report:

- $34.3B market with 11% growth rate

Example Jobs Currently Posted

- **Alaska Airlines**
- **Amazon**
- **American Express**
- **Apple**
- **Atlas Copco Rental LLC**
- **Coca-Cola**
- **D.E. Shaw & Co. L.P.**
- **DuoLingo**
- **Home Depot**
- **McDonald's Corporation**
- **Microsoft**
- **Salesforce**
- **Southern Company**

Posted salaries range from $80,000 to $275,000

- Sr. Manager Learning Strategy
- Manager, Learning Design & Development
- Manager Continuous Learning
- Learning & Development Program Manager
- Software Engineer – Instructional Applications
- Learning & Development Director
- Manager, Workforce Development
- Director of Learning & Development
- Manager, Excellence Learning Design
- Regional Learning & Development Manager
- Senior Learning Analyst
- Learning Platform Analyst
- Learning Designer
- Sr Learning & Development Specialist
- Director, Functional Learning & Development

Research

The college will study the process of learning throughout the lifetime as impacted by technology, economics, policy, geography, societal, and workforce needs.

Possible Areas of Inquiry:

- Learning analytics
- Learning at scale
- Assessing new learning ecosystems
- Data Architectures for learning and education
- Learning technology utilization, including AI
- Learning/skill acquisition during periods transition/outside of formal programs
- Emerging skills, career pathways
- Assessing new career ecosystems
- Future of work, workforce development
- Middle-skill technology
- Remote work practices

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Existing/Pending Research Projects

Georgia Tech has a solid base of research that will drive future curricular assets. Examples include:

- **Bridge Up (DiSalvo etc.):** bridging faculty, grad students, and undergrad students with high school students learning computer science and to conduct research and build the pipeline of women and gender non-conforming individuals in computer science. Foundation funding to CoC.
- **IES AI-EQUALS:** Artificial Intelligence for Enhancing Quality and Access in Learning for Students submitted by SCI in CoC, AI-Aloe, and CTL)
- **NSF - Georgia STEMER Conference:** Building Capacity, Building Partnerships, Education research conference, proposal submitted by CTL with LOS from USG.
- **Building Smart Community Capacity:** (PI Betsy DiSalvo, Co-PI Carl DiSalvo), Work training program to grow middle skill data science work with underemployed adults.
- **NSF AI Institute - AI-Augmented Learning:** Adult Learning: Novel AI Techniques for Online Education. (PI: Ashok Goel)
- **Promoting Computational Thinking Through Middle School Music Technology**
- **Exploring Artificial Intelligence-enhanced Electronic Design Process Logs:** Empowering High School Engineering Teachers (2021-24)
- **Measuring the Effectiveness of Middle School STEM-Innovation and Engineering Design Curricula** (2021-2025)
- **Students and Teachers Learning from Nature:** Studying Biologically-Inspired Design in High School Engineering Education (2019-24)
- **Investigating Factors Influencing Engineering and Computer Science Teachers:** Professional Identity, Support Networks, Effectiveness, and Retention (2023-2026)
- **Collaborative Research:** Broadening Participation of Latinx Students in Computer Science by Integrating Culturally Relevant Computational Music Practices (2020-24)
- **Collaborative Research:** Engaging Blind and Visually Impaired Youth in Computer Science through Music Programming (PI: Magerko; Co-PIs: Freeman, etc.)
- **Fostering AI Literacy through Embodiment and Creativity across Informal Learning Spaces** (PI: Magerko)
- **NSF CAREER:** Human-like Machine Learning to Power Human-Centered Teachable AI Assistants (PI: Chris MacLellan)

College vs. Division Structure

Activities	Division	College
Provide non-credit professional education.	✓	✓
Deliver programs and camps for K-12 learners and teachers.	✓	✓
Engage with faculty for teaching from existing colleges when they have available time.	✓	✓
Conduct research related to lifetime learning.	✓	✓ +
Create credit-bearing programs to train the next generation of lifetime learning leaders.		✓
Enroll credit-seeking students.		✓
Hire tenure-track faculty dedicated to the mission.		✓
Build a dedicated community of scholars, including faculty, staff, and students.		✓
Create through research new academic courses and learner services such as lifetime career guidance and learning.	✓	✓ +
Enable faculty to associate activities with promotion.		✓
Disseminate research and enable learner hub to others, including USG.	✓	✓ +
Enable Ph.D. students in lifetime learning.		✓

FAQs

How will this college interact with other colleges and their programs?

- The college will not take over any programs or courses, nor will it duplicate current offerings.
- There will be opportunities for joint degrees/certificate programs and other collaborations.
- The college will continue to collaborate on individual courses, online degree programs, and professional development programs.

FAQs

How can current faculty affiliate with the college?

Faculty can choose to participate. Possibilities include:

- Cross listing existing courses
- Teaching in a non-degree program
- Collaborating in research projects
- Proposing new courses, certificates, or programs
- Requesting joint appointment
- Moving your unit home to the new college

FAQs

How will the college be funded while it is building new academic programs?

- The new college will grow the overall “budget pie” rather than take a slice of the existing budget.
- Start-up costs will be funded through one-time bridge funding on a fund source distinct from any college funding.
- No college budget will be affected.
- C21U, GTPE, and CEISMC continue existing work and faculty relationships.
- The budget models for existing GTPE-supported degree programs and non-credit programs will likely continue for the foreseeable future.
- New programs can have different budget models.

FAQs

What is the estimated timeline and size of students in the degree programs?

Upon approval for a college:

- Fall '24, Spring '25: Faculty affiliations as they desire
- Spring '25, Fall '26: Degree governance
- Spring '26: Promote degree and seek admissions
- Fall '26: First possible classes start
- Within 3-5 years, estimate ~100 students