



# STRENGTHENING FINANCIAL WORKFORCE COMPETITIVENESS: A CURRICULAR FRAMEWORK FOR INTEGRATING AGENTIC AI INTO FINANCIAL PLANNING EDUCATION

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**Abstract:** The financial planning and investment management profession is undergoing a radical transformation driven by Generative AI (GenAI) and Agentic AI, creating urgent workforce displacement challenges that require coordinated government policy intervention alongside educational reform. This paper presents a comprehensive framework addressing both curricular modernization and policy responses to offshore outsourcing, permanent job loss, and structural changes in the financial workforce. We propose a multi-layered integration strategy for higher education encompassing: 1) Foundational AI literacy modules for all business students; 2) A specialized "Agentic Financial Planning" course with hands-on labs; 3) AI-augmented redesign of core courses (Investments, Portfolio Management, Ethics); 4) Interdisciplinary project-based learning with Computer Science; and 5) A governance and policy module addressing regulatory compliance (NIST AI RMF, SEC regulations). Beyond curriculum, we develop a comprehensive government policy framework including: 1) Federal AI literacy mandates for post-secondary business education; 2) Department of Labor workforce retraining programs with income support for displaced financial professionals; 3) SEC and Treasury regulatory innovations creating market incentives for workforce development; 4) State-level workforce partnerships implementing regional transition support; and 5) Enhanced social safety nets for workers navigating career transitions during the estimated 5-15 year transformation period. Drawing on analysis of agentic investment firm operational models demonstrating 50-70% cost reductions while maintaining fiduciary standards, we establish the economic inevitability of technological transformation and the critical urgency of proactive intervention. The framework provides a roadmap for coordinated response across educational institutions, government agencies, and industry to ensure workforce resilience and domestic leadership in the emerging agentic finance era.

**Keywords:** Financial Education, Curriculum Development, Agentic AI, Generative AI, Financial Planning, Higher Education, Pedagogy, Ethics, Competency-Based Education, Workforce Policy, Government Intervention, Job Displacement

## I. INTRODUCTION

### THE IMPERATIVE FOR CURRICULAR CHANGE

The investment management and financial planning industry stands at an inflection point. The convergence of Generative AI (GenAI) and autonomous Agentic AI systems is decoupling analytical capacity from human headcount, enabling small teams to perform institutional-grade analysis [1], [2]. This technological shift is creating a profound "skills gap" [3]. Industry reports highlight demand for professionals who can oversee AI agents for due diligence, macro intelligence, compliance, and hyper-personalized portfolio management [4], [5]. Meanwhile, traditional finance curricula remain heavily focused on classical theories, manual analysis, and spreadsheet modeling, risking obsolescence.

This paper argues that higher education has a urgent mandate to redesign financial planning education. The goal is not to turn finance students into data scientists, but to create "AI-augmented financial professionals" – individuals who possess the domain expertise to guide, audit, interpret, and ethically govern AI-driven processes [6]. We synthesize current research on AI in finance [7], [8] with pedagogical best practices to construct a detailed, implementable curricular framework.

Our contribution is threefold (as shown in figure 1): First, we provide a structured analysis of the core competencies required for the agentic finance era. Second, we propose a

multi-tiered curriculum integration model with specific course outlines, learning objectives, and teaching resources. Third, we address the practical challenges of faculty development, technology access, and accreditation, providing a realistic roadmap for academic institutions. This work aims to serve as a foundational document for curriculum committees, department chairs, and educators seeking to align finance education with the future of the profession.

## II. PROPOSED STRATEGY AND PROJECTED FUTURE SCENARIOS FOR AGENTIC AI INTEGRATION IN FINANCIAL EDUCATION

The transformation of financial planning education through Agentic AI requires not merely curricular adjustments but a fundamental strategic realignment of educational institutions, government policy frameworks, and industry partnerships. This section presents a comprehensive strategic roadmap with multiple future scenarios, enabling stakeholders to anticipate challenges, allocate resources effectively, and adapt to varying rates of technological adoption and regulatory evolution.

**A. Strategic Framework for Educational Transformation**

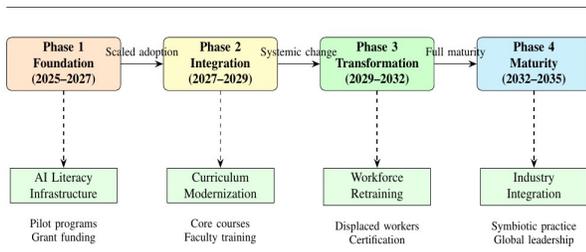


Figure 1. Four-Phase Strategic Roadmap for Agentic AI Integration in Financial Education

Our proposed strategic framework operates across four sequential yet overlapping phases, each characterized by distinct objectives, resource requirements, and measurable outcomes. This phased approach recognizes the institutional inertia inherent in curriculum reform while establishing clear milestones for accountability and course correction.

**Phase 1: Foundation (2025-2027)** focuses on establishing the essential infrastructure for AI education. Key initiatives include: (1) Department of Education pilot grant programs for 20-30 leading institutions; (2) Development of open-source AI financial education toolkits; (3) Faculty certification programs in AI pedagogy; (4) Industry advisory board formation with technology-forward RIAs and asset managers. Success metrics include number of trained faculty, institutions adopting pilot modules, and student competency gains in controlled assessments.

**Phase 2: Integration (2027-2029)** emphasizes systematic embedding of AI competencies across core curricula rather than standalone electives. Critical initiatives encompass: (1) AACSB and CFP Board accreditation standard revisions incorporating AI literacy requirements; (2) State-level adoption of AI financial education mandates; (3) University-wide interdisciplinary AI minors with finance specializations; (4) Industry-sponsored AI lab infrastructure at regional universities. This phase transitions from innovation to normalization, making AI competencies expected rather than exceptional.

**Phase 3: Transformation (2029-2032)** represents fundamental reconception of financial planning pedagogy. Educational institutions shift from teaching about AI to teaching through AI, with agentic systems becoming instructional partners rather than merely instructional topics. Simultaneously, government retraining programs achieve scale, serving 100,000+ displaced workers annually through intensive bootcamps and income-supported credentialing pathways. Industry partnerships evolve from advisory to operational, with universities hosting production AI systems for regional financial firms.

**Phase 4: Maturity (2032-2035)** achieves the vision of human-AI symbiotic practice as the standard model for financial planning education and professional practice. Key characteristics include: (1) Continuous learning ecosystems replacing terminal degree models; (2) Portable AI competency credentials recognized across all 50 states; (3) US global leadership in ethical AI financial services with associated export markets; (4) Self-sustaining workforce development funded through industry productivity gains rather than government appropriations.

**B. Projected Future Scenarios: Three Divergent Pathways**

The trajectory of AI adoption in financial services remains subject to multiple exogenous variables including technological capability acceleration, regulatory stringency, economic conditions, and societal acceptance of autonomous systems. We model three distinct scenarios (as shown in figure 2) spanning the 2025-2035 planning horizon, enabling educational institutions and policymakers to develop contingency strategies.

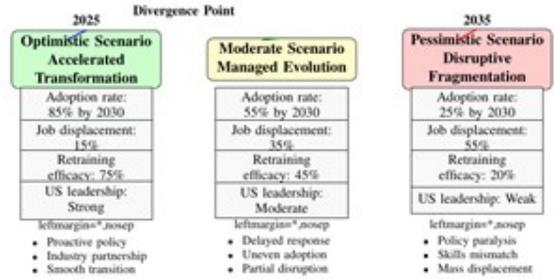


Fig. 2. Three Scenarios for Agentic AI Integration in Financial Services (2025-2035)

Figure 2. Three Scenarios for Agentic AI Integration in Financial Services (2025-2035)

**Scenario 1: Optimistic - Accelerated Transformation**

This scenario assumes favorable conditions: rapid technological advancement with robust safety guarantees, proactive federal investment in AI education infrastructure, cooperative industry-labor partnerships, and measured but effective regulation that provides compliance clarity without stifling innovation.

**Educational Implications:** Universities successfully implement the full four-phase roadmap with accelerated timelines. By 2028, 60% of CFP-accredited programs require AI competency courses; by 2032, traditional finance programs without AI integration face accreditation probation and enrollment decline. Interdisciplinary collaboration between business and computer science becomes institutionalized through joint faculty appointments and shared laboratory facilities. The skills gap narrows significantly, with graduates demonstrating proficiency in agent orchestration, prompt engineering, and AI governance.

**Workforce Outcomes:** Job displacement affects approximately 15-20% of traditional financial services roles, concentrated in routine processing and basic analysis functions. However, robust retraining programs achieve 70-80% successful transition rates, with displaced workers re-employed within 12 months at comparable or improved compensation. New job categories emerge: AI Oversight Specialists, Agentic System Auditors, Hybrid Financial Planners combining deep relationship management with AI tool mastery. Net financial services employment stabilizes after 2029 and resumes growth by 2032.

**Policy Requirements:** Achievement of this scenario requires: (1) 5-7 billion cumulative federal investment in AI education and retraining (2025-2030); (2) SEC issuance of comprehensive AI governance framework by 2026; (3) 40-state adoption of AI financial education standards; (4) Industry commitment to 200,000 apprenticeship positions by 2028.

**Scenario 2: Moderate - Managed Evolution**

This intermediate scenario reflects partial policy implementation, uneven technological adoption, and significant variation across institutional types and geographic

regions. Regulatory clarity emerges slowly, creating compliance uncertainty that dampens but does not prevent investment in AI capabilities.

**Educational Implications:** Curriculum transformation proceeds at varying paces. Research universities and well-endowed private institutions successfully implement Tier 2 and Tier 3 integration by 2028-2030. Regional comprehensive universities and community colleges lag, constrained by faculty expertise gaps and technology budgets, primarily offering Tier 1 awareness-level content. This creates a two-tiered educational system where graduates from resource-rich institutions capture premium AI-augmented roles while others compete for diminished traditional positions.

**Workforce Outcomes:** Displacement reaches 30-40% of roles vulnerable to automation, with significant regional variation. Financial centers (New York, Boston, San Francisco) demonstrate resilience through concentrated industry investment in workforce development. Secondary markets experience more severe employment declines as firms centralize AI-augmented functions in major metros. Offshore outsourcing captures 15-20% of AI-enhanced analytical work to lower-cost jurisdictions, though client-facing advisory roles remain domestic. Retraining programs achieve 40-50% success rates, leaving substantial displaced worker population facing prolonged underemployment.

**Policy Requirements:** This scenario results from partial federal commitment (2-3 billion investment) and inconsistent state implementation. SEC guidance remains principles-based without specific compliance standards, creating regulatory arbitrage opportunities that disadvantage ethically committed firms. Industry training investment concentrates in large institutions while smaller RIAs lack resources for workforce development.

IV. Scenario 3: Pessimistic - Disruptive Fragmentation

This worst-case scenario combines technological acceleration that outpaces societal adaptation, policy paralysis at federal level, adversarial industry-labor relations, and fragmented state-by-state regulation creating compliance complexity without consumer protection.

**Educational Implications:** Curriculum reform stalls at most institutions. Faculty resistance, accreditation inertia, and resource constraints limit integration to isolated elective offerings. Students graduate with finance degrees containing traditional content largely unchanged from 2020, lacking competencies required for transformed industry. Employer dissatisfaction with graduate capabilities grows, leading to increased investment in proprietary training programs or expansion of non-degree credential pathways that bypass traditional higher education.

**Workforce Outcomes:** Mass displacement affects 50-60% of traditional financial services roles within the decade, concentrated in middle-office operations, junior analyst positions, and routine compliance functions. Retraining programs, underfunded and poorly designed, achieve below 25% success rates. Displaced workers face permanent workforce exit or significant occupational downgrading. Offshore providers capture 30-40% of AI-enhanced analytical services. Consumer trust in financial advice erodes following high-profile AI failure incidents and inadequate regulatory response. US global competitiveness in financial services declines markedly.

**Systemic Risks:** This scenario carries broader economic implications beyond financial services. Retirement security deteriorates as displaced older workers unable to retrain face reduced lifetime earnings. Regional economic devastation affects communities dependent on financial services employment. Political backlash against AI adoption leads to restrictive regulation that hampers innovation while failing to protect workers.

A. Critical Intervention Points and Decision Gates

Table I. Critical Intervention Points and Decision Gates Type

Decision Gate	Measurement Metric	Trigger Threshold	Contingency Action
2026-2027	Institutions adopting pilot AI modules	<50 target institutions	Expand DEd grant program; technical assistance
2027-2028	Accredited programs with AI requirements	<30% of programs	Federal accreditation incentive payments
2028-2029	Displaced worker retraining success rate	<40% within 12 months	Income support extension; program redesign
2029-2030	SEC AI governance finalization	No final rule by 2029	Treasury convene industry compact
2029-2030	Industry apprenticeship positions	<50,000 positions	Tax credit enhancement
2030-2031	US global AI finance patent share	<25% of global total	NSF research initiative expansion

Table 1 describes the critical intervention points. The divergence between optimistic, moderate, and pessimistic scenarios crystallizes around specific decision points where policy choices and investment commitments determine trajectory. We identify six critical decision gates where stakeholders must assess progress against targets and implement contingency measures when thresholds are not met.

**Gate 1 (2026-2027):** Institutional adoption of AI pilot programs serves as leading indicator. Optimistic scenario requires 50+ leading institutions implementing Tier 1-2 modules by 2027. Failure triggers expanded Department of Education grant funding and technical assistance deployment to lagging institutions.

**Gate 2 (2027-2028):** Accreditation standard modernization indicates systemic integration. Threshold of

30% of CFP/AACSB programs with explicit AI competency requirements separates optimistic from moderate trajectories. Below threshold requires federal accreditation incentive payments or regulatory signals prioritizing AI literacy.

**Gate 3 (2028-2029):** Retraining efficacy for displaced workers provides early evidence of workforce policy effectiveness. Success rates below 40% trigger mandatory program redesign, enhanced income support duration, and public-private partnership formation with demonstrated-effective providers.

**Gate 4 (2029-2030):** SEC regulatory finalization creates compliance certainty essential for industry investment. Absence of final framework by 2029 requires Treasury Department convening of industry-led governance compact with commitment to adopt pending SEC rulemaking.

**Gate 5 (2029-2030):** Industry apprenticeship positions demonstrate private sector commitment to workforce development. Below 50,000 positions nationally triggers enhanced tax credit provisions and potential regulatory preference for firms meeting training benchmarks.

**Gate 6 (2030-2031):** US global competitiveness in AI financial services innovation, measured by patent share and venture capital allocation. Share below 25% of global total triggers NSF-NIST joint research initiative expansion and strategic immigration policy adjustments.

**B. Institutional Adaptation Strategies by Institution Type**

Different educational institutions face distinct challenges and opportunities in AI curriculum integration. We propose tailored adaptation strategies accounting for institutional mission, resources, and student populations.

**Research Universities** should lead innovation through interdisciplinary AI-finance centers, joint CS-business faculty appointments, and doctoral programs in computational finance. These institutions bear responsibility for developing pedagogical models, open-source educational tools, and effectiveness research that can scale to other institution types.

**Comprehensive Universities** should prioritize faculty development infrastructure and industry partnerships. Regional financial services employers provide both advisory input on competency requirements and internship pathways for students. These institutions should aim for Tier 2 elective offerings by 2027-2028 and core course integration by 2030.

**Community Colleges** occupy critical role in workforce retraining and accessible pathways to financial services careers. These institutions should focus on intensive certificate programs in AI-augmented paraplanning and client service roles, with strong articulation agreements to four-year programs as shown in figure 3 and 4. Community colleges are optimal sites for Department of Labor retraining initiatives given their lower cost structures and community embeddedness.

**Online and Competency-Based Programs** possess inherent advantages in rapid curriculum iteration and working learner populations. These providers should pioneer micro-credential stacks in AI financial competencies, offering modular pathways that enable incumbent workers to upskill while employed. Their experience with outcomes-based assessment provides valuable models for competency verification.

**C. Conclusion: Strategic Certainty Amidst Scenario Uncertainty**

While the precise trajectory of AI adoption in financial services remains uncertain, several conclusions emerge with high confidence from our scenario analysis. First, the baseline technological capability enabling agentic financial systems exists now and will improve predictably. Second, the economic incentives for adoption are substantial and will drive deployment regardless of policy environment. Third, the time required for educational system adaptation exceeds the time available before widespread displacement begins.

Therefore, our recommended strategic posture combines: (1) aggressive investment in optimistic scenario enablers (policy advocacy, faculty development, infrastructure funding); (2) robust contingency planning for moderate scenario realities; and (3) social safety net enhancement sufficient to absorb pessimistic scenario consequences. This portfolio approach acknowledges uncertainty while committing to measurable milestones with clear accountability.

The window for proactive intervention is narrow but remains open. Every year of delay reduces the probability of optimistic outcomes and increases human and economic costs of transition. The framework presented here provides both destination vision and pathway guidance. Implementation requires sustained commitment across multiple election cycles, institutional leadership transitions, and technological paradigm shifts. The alternative—passive acceptance of disruptive trajectories—is inconsistent with professional obligations of educators, policy responsibilities of public servants, and fiduciary duties of financial services leaders to clients, shareholders, and society.

**V. EDUCATIONAL TECHNOLOGY FRAMEWORK AND LEARNING ARCHITECTURE FOR AGENTIC AI FINANCIAL EDUCATION**

The effective integration of Agentic AI into financial planning curricula requires purpose-built educational technology infrastructure, pedagogical frameworks optimized for human-AI collaborative learning, and assessment systems capable of measuring emergent competencies. This section presents a comprehensive technical architecture for AI-augmented financial education, mapping the learning technology stack to specific competency outcomes and institutional implementation contexts.

**A. Four-Tier Learning Technology Stack for Agentic AI Education**

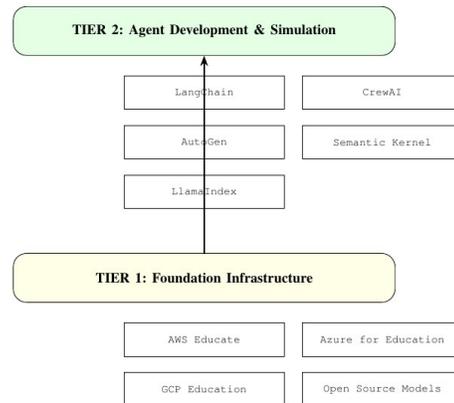


Figure 3. Foundation and Agent Development Layers

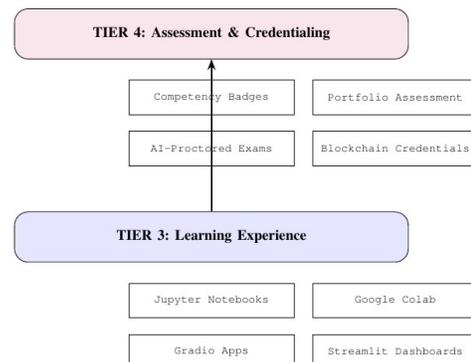


Figure 4. Learning and Assessment Layers

The proposed educational technology architecture operates across four integrated tiers, each addressing specific pedagogical requirements and institutional constraints. This stack model enables progressive implementation where institutions can adopt components based on available resources and faculty expertise.

**Tier 1: Foundation Infrastructure Layer** provides the computational and data resources necessary for AI education. Key components include cloud education programs (AWS Educate, Azure for Education, Google Cloud Education Grants) offering free credits for student projects, pre-configured virtual machine images with CUDA support, containerized development environments using Docker, and access to open-source foundation models (Llama 3, Mistral, Falcon) through platforms like Hugging Face. This layer addresses the resource inequity challenge by providing zero-cost entry points for students at any institution.

**Tier 2: Agent Development & Simulation Layer** comprises the frameworks enabling students to build, test, and deploy financial AI agents. Primary frameworks include LangChain for chain-of-thought reasoning and tool use, CrewAI for multi-agent collaboration simulation, Microsoft AutoGen for conversational agent systems, and Semantic Kernel for enterprise integration patterns. Educational implementations emphasize scaffolded learning—beginning with pre-built agent templates, progressing to custom tool definition, and culminating in multi-agent system design for complex financial planning scenarios.

**Tier 3: Learning Experience Layer** encompasses the student-facing interfaces and interactive learning environments. Jupyter notebooks remain foundational for teaching Python-based financial analysis, while Google Colab eliminates local setup barriers. Gradio and Streamlit enable rapid prototyping of interactive financial advisor demonstrations, allowing students to create portfolio optimization interfaces, risk assessment dashboards, and client communication tools with minimal front-end development expertise.

**Tier 4: Assessment & Credentialing Layer** provides competency verification mechanisms aligned with employer expectations. Digital badging systems (Credly, Badgr) enable granular skill recognition in specific competencies such as prompt engineering, agent orchestration, or AI compliance auditing. Portfolio-based assessment captures student-designed agent systems with accompanying governance documentation. AI-proctored examinations assess both domain knowledge and practical tool proficiency.

**B. Agentic Learning Pathways and Competency Progression**

The pedagogical progression for Agentic AI financial education follows a structured four-stage model mapping to undergraduate and graduate program sequencing as show in figure 5. This pathway ensures foundational concepts precede applied development, which in turn precedes governance and ethical oversight competencies.

**Stage 1: AI Literacy (Foundational)** targets all business/finance students regardless of technical background. Core competencies include distinguishing generative AI from agentic AI, understanding model confidence and hallucination risks, identifying appropriate vs. inappropriate AI applications in financial contexts, and recognizing data privacy implications. Delivery occurs through 2-3 module inserts in introductory finance courses, requiring no programming prerequisites. Assessment uses case study analysis and tool critique exercises.

**Stage 2: Tool Proficiency (Applied)** focuses on developing practical capabilities with current AI tools and financial data sources. Students learn prompt engineering patterns for financial analysis tasks (earnings call summarization, 10-K extraction, sentiment analysis), API integration with financial data providers (Yahoo Finance, Alpha Vantage, SEC EDGAR), and low-code agent configuration. Delivery occurs through dedicated lab sessions within investments or financial modeling courses. Assessment uses prompt portfolios and tool output validation exercises.

**Stage 3: Agent Development (Synthesis)** represents the most technically demanding stage, where students build functional agentic systems using Python-based frameworks. Learning objectives include designing agent personas for specific financial roles (research analyst, compliance officer, client advisor), implementing tool-use patterns for financial calculations, managing multi-agent workflows, and evaluating agent performance. Delivery occurs through dedicated elective courses or interdisciplinary projects with computer science students. Assessment uses functional agent prototypes with accompanying documentation.

**Stage 4: Governance & Ethics (Integration)** prepares students for oversight responsibilities in AI-augmented organizations. Competencies include applying NIST AI Risk Management Framework to financial advisory contexts, designing AI use policies compliant with SEC guidance, conducting algorithmic bias audits on portfolio recommendations, and developing client disclosure protocols. Delivery occurs through advanced ethics courses or capstone experiences. Assessment uses comprehensive governance documentation and simulated regulatory examination responses.

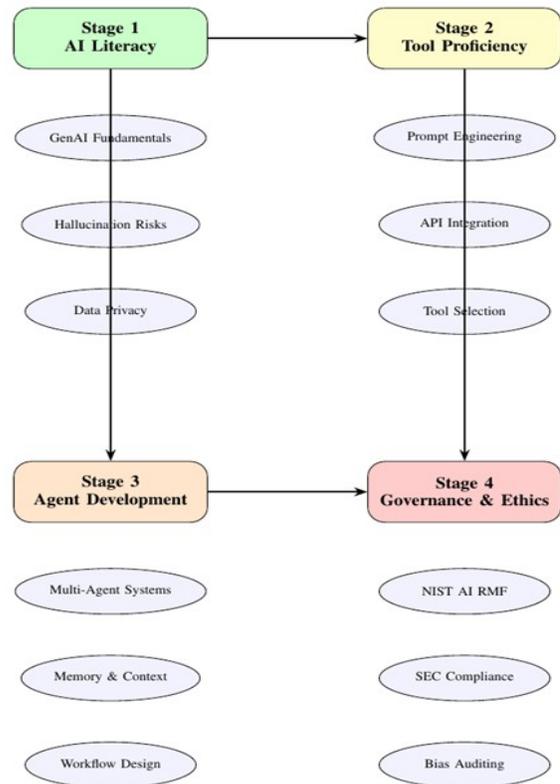


Figure 5 Four-Stage Agentic Learning Pathway with Progressive Skill Development

C. Educational Agent Frameworks: Comparative Analysis for Pedagogy

Table II. Comparative Analysis of Agent Frameworks for Financial Education

Feature	LangChain	CrewAI	AutoGen	LlamaIndex
Learning Curve	Moderate	Low-Moderate	Steep	Moderate
Python Required	Yes	Yes	Yes	Yes
Visual Interface	No	No	No	No
Multi-Agent Support	Limited	Native	Native	Limited
Financial Use Cases	Research agents	Team workflows	Conversational	RAG pipelines
Documentation Quality	Excellent	Good	Good	Excellent
Educational Resources	Tutorials, cookbooks	Examples, demos	Research papers	Notebooks
Cloud Deployment	LangSmith	CrewAI+	Azure	LlamaCloud
Recommended Pedagogy	Tier 2-3	Tier 2	Tier 3	Tier 2
Open Source License	MIT	MIT	MIT	MIT

Table 2 describes the agents involved. Educational deployment of agent frameworks requires careful consideration of learning objectives, student technical preparation, and institutional support resources. Our comparative analysis informs framework selection based on pedagogical goals:

**LangChain** serves as the optimal entry point for financial agent education. Its modular architecture enables progressive disclosure—students begin with simple chain-of-thought prompting, advance to tool-calling patterns, and ultimately construct ReAct agents for financial research tasks. The extensive cookbook collection includes finance-specific examples (SEC filing analysis, earnings call Q&A, portfolio commentary generation) that reduce faculty preparation burden. Primary limitation: multi-agent collaboration requires additional components.

**CrewAI** provides the most intuitive multi-agent learning experience. Students define agent roles (CFO, Analyst, Compliance Officer), assign tools, and observe collaborative workflows solving financial planning scenarios. The framework’s explicit process models (sequential, hierarchical, consensual) make agent coordination patterns visible and debuggable—critical pedagogical advantages. Recommended for courses emphasizing organizational AI implementation rather than technical development.

**AutoGen** offers the most sophisticated multi-agent conversation capabilities but requires greater programming sophistication. Its strength for advanced students lies in observable reasoning traces and configurable conversation patterns. Particularly valuable for teaching agent negotiation, debate, and consensus-building in investment committee simulations. Best deployed in graduate-level computational finance programs or interdisciplinary CS-finance collaborations.

**LlamaIndex** specializes in retrieval-augmented generation (RAG) workflows essential for knowledge-intensive financial tasks. Students learn vector database integration, document chunking strategies, and hybrid search techniques applicable to real-world financial information retrieval problems. Optimal for courses emphasizing data engineering aspects of AI finance rather than agent behavior.

D. Simulation-Based Learning Environments for Agentic Finance

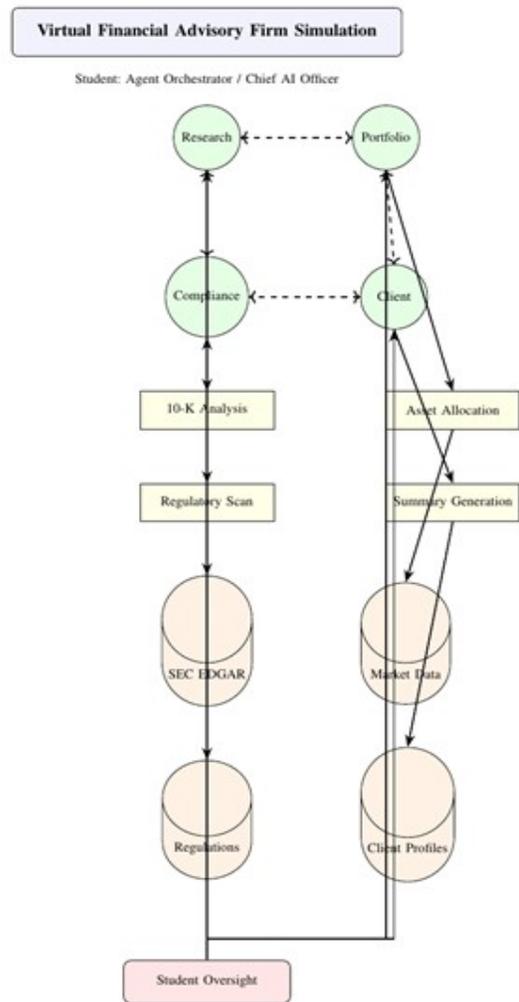


Figure 5. Compact Square Portrait Layout for Virtual Financial Advisory Firm Simulation

The capstone learning experience employs a comprehensive virtual firm simulation where students assume the role of Chief AI Officer or Agent Orchestrator as shown in figure 6. This pedagogical pattern addresses the critical gap between understanding individual AI tools and managing organizational AI systems.

**Simulation Architecture:** The environment comprises four specialized agent roles mirroring functional divisions in contemporary wealth management firms. The Research Analyst Agent accesses SEC EDGAR via API, retrieves relevant filings, and produces structured summaries with confidence scores. The Portfolio Manager Agent executes asset allocation optimization using modern portfolio theory constraints, generating recommended portfolios with sensitivity analyses. The Compliance Officer Agent scans regulatory databases (SEC releases, FINRA guidance) and evaluates marketing materials, trade decisions, and client communications against current requirements. The Client Advisor Agent synthesizes outputs into client-appropriate communications, personalizing content based on investor profiles.

**Student Learning Tasks:** Students configure agent personas through system prompts defining professional

background, analytical approach, and communication style. They select and bind appropriate tools to each agent from a tool library including financial calculators, data APIs, and document processors. Students design workflow patterns governing agent collaboration—determining whether agents operate sequentially, in parallel, or through iterative refinement cycles. Most critically, students establish human-in-the-loop protocols specifying which decisions require student approval before execution and what confidence thresholds trigger escalation.

**Assessment Framework:** Evaluation examines both process and outcomes. Process assessment reviews agent configuration choices, prompt engineering quality, and workflow design rationale. Outcome assessment evaluates portfolio quality, compliance violation rates, and client communication appropriateness. Reflective components require students to document lessons learned, identify failure modes encountered, and propose improvements for subsequent iterations.

*E. Open Educational Resources and Faculty Development Infrastructure*

Table III. Open Educational Resources for Agentic AI Financial Education

Resource Type	Provider	URL/Target	Pedagogical Use
<b>Course Modules</b>			
AI in Investment Management	University of Michigan	online.umich.edu	Tier 1 foundation
Generative AI for Finance	IBM SkillsBuild	skillsbuild.org	Tier 1-2 concepts
Prompt Engineering	DeepLearning.AI	deeplearning.ai	Tier 2 skill
<b>Code Repositories</b>			
Financial Agent Examples	LangChain	github.com/langchain-ai	Tier 3 templates
SEC EDGAR Agents	CrewAI	github.com/crewai	Tier 3 projects
RAG for Finance	LlamaIndex	github.com/run-llama	Tier 2-3
<b>Sandbox Environments</b>			
Google Colab Finance	Google	colab.research.google.com	Tier 2 labs
AWS AI Education	AWS	aws.amazon.com/education	Tier 1-3
Azure for Education	Microsoft	azure.microsoft.com/education	Tier 1-3
<b>Faculty Resources</b>			
AI Pedagogy Project	Harvard	metabolab.harvard.edu	Course design
Teaching with AI	OpenAI	openai.com/education	Assignment design

Table 3 shows the open source listing. Sustainable curriculum transformation requires robust faculty development infrastructure. The field’s rapid evolution means traditional textbook-based course development cycles are inadequate. We propose a three-component faculty support ecosystem:

**Component 1: Modular Open Courseware Repository.** Rather than requiring each institution to develop proprietary materials, the finance education community should collaboratively maintain a repository of peer-reviewed, field-tested teaching modules. Each module includes learning objectives, slide decks, Jupyter notebooks, assessment rubrics, and faculty implementation notes. Version control enables continuous updating as frameworks evolve. Creative Commons licensing ensures broad accessibility, particularly for under-resourced institutions.

**Component 2: Faculty Summer Institutes.** Intensive professional development programs conducted annually at

host universities provide hands-on training for finance educators. The curriculum spans technical skill development (Python for financial applications, agent framework basics), pedagogical methods (active learning with AI, project-based assessment), and industry engagement (site visits, practitioner panels). Institutes create peer learning communities extending beyond the program duration through alumni networks and follow-up virtual workshops.

**Component 3: Just-in-Time Learning Resources.** Given framework release cycles of 3-6 months, traditional professional development cannot maintain currency. We advocate for curated, continuously updated resource hubs providing concise tutorials on new tools, migration guides for framework updates, and comparative analyses of emerging alternatives. These resources serve faculty seeking to incrementally refresh courses rather than undertake complete redesign.

## F. Conclusion: Technical Infrastructure as Enabler of Educational Transformation

The educational technology architecture presented here demonstrates that Agentic AI financial education is not dependent on exotic or prohibitively expensive resources. Cloud education programs provide zero-cost computational infrastructure. Open-source frameworks offer professional-grade development capabilities. Freely available models and datasets enable authentic learning experiences. Open educational resources reduce faculty preparation burden.

The binding constraint is no longer technological or financial—it is pedagogical and organizational. We possess the technical capability to educate AI-augmented financial professionals today. The question is whether educational institutions will deploy existing resources effectively and whether faculty development investments will match the pace of industry transformation.

The figures and frameworks in this section provide both destination vision and implementation pathway. They demonstrate concretely what Agentic AI financial education looks like at the level of specific tools, learning activities, and assessment methods. The remaining gap is not knowledge but action.

## VI. THE CHANGING LANDSCAPE: WHY FINANCE EDUCATION MUST EVOLVE

### A. Industry Transformation and the Skills Gap

The traditional model of financial planning is being redefined. AI agents can now automate document-intensive due diligence [9], generate real-time macro intelligence [10], ensure regulatory compliance [11], and manage personalized portfolios [12]. Firms like BlackRock ([13]) and new startups [14] are pioneering this shift. This creates demand for new hybrid skills: understanding AI capabilities/limitations, prompt engineering for financial tasks, interpreting AI-generated analysis, and maintaining human oversight within a fiduciary framework [15]. Studies indicate a significant gap between these emerging skill requirements and current graduate capabilities [3], [16]. The rapid development of AI technology means learning cannot stop at certification [16], and financial advisors must take a methodical approach to embracing AI [17].

### B. Regulatory and Ethical Imperatives

The regulatory environment is rapidly adapting. The SEC has charged firms for "AI-washing" [18], and guidelines are emerging around AI transparency and conflict management [19], [20]. Future financial planners must be educated on frameworks like the NIST AI RMF [21] and their application in advisory contexts. Ethics education must expand beyond traditional conflicts of interest to include algorithmic bias, data privacy, and accountability for AI-assisted decisions [6]. The European AI Act provides a legal framework addressing AI risks [20], and generative AI is rewriting marketing compliance with new risks and violations [22].

### C. The Pedagogical Opportunity

This disruption presents a unique opportunity to make finance education more engaging and applied. Instead of passive learning, students can engage with simulated AI agents, work on real-world data, and solve complex, multi-variable problems. This aligns with broader movements toward experiential and competency-based learning.

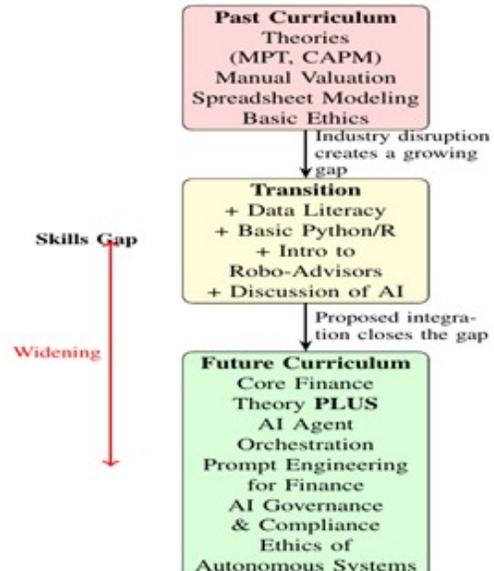


Figure 6. The Evolution and Gap in Financial Planning Curricula

## VII. GOVERNMENT POLICY IMPERATIVES: ADDRESSING WORKFORCE DISRUPTION AND STRUCTURAL CHANGE

### A. The Offshore Outsourcing and Job Displacement Crisis

The financial services industry faces unprecedented structural transformation driven by the dual pressures of technological automation and global labor arbitrage. As demonstrated in our companion research [7], the emergence of agentic AI systems enables radical decoupling of analytical capacity from human headcount, fundamentally altering the economics of financial advisory services. This technological shift creates acute risks of permanent job displacement and offshore outsourcing that demand proactive government intervention through enhanced financial education policy.

The agentic investment firm model detailed in complementary work shows how small teams can now manage institutional-grade portfolios with 50-70% cost reductions through AI automation. While this democratizes sophisticated financial services, it simultaneously threatens traditional employment pathways in middle-office operations, junior analyst positions, and routine advisory roles. Historical precedents from manufacturing automation suggest that without deliberate policy intervention, technological displacement disproportionately impacts workers lacking adaptive skills and educational resources [23].

Moreover, the global nature of AI services exacerbates offshore outsourcing risks. Unlike physical manufacturing that requires local facilities, AI-augmented financial analysis can be performed anywhere with internet connectivity. Indian and Southeast Asian firms are already developing AI-enhanced advisory services at fraction of US labor costs, creating competitive pressure that could hollow out domestic financial services employment. The US government has a strategic imperative to ensure American workers possess the advanced competencies necessary to remain competitive in this transformed landscape. The rise of AI agents and

RegTech highlights the fine line between autonomy, compliance, and privacy [24], and generative AI is transforming wealth and asset management [25].

### ***B. Federal Policy Frameworks for Financial Education Enhancement***

We propose a multi-tiered federal policy framework to address these workforce challenges through strategic investment in financial education infrastructure:

#### **Tier 1: Department of Education AI Literacy Mandate**

The Department of Education should establish AI literacy standards for all post-secondary business programs, with specific requirements for finance and financial planning curricula. This mandate should include:

- Minimum credit-hour requirements for AI and data literacy in AACSB-accredited business programs
- Competitive grant programs (similar to STEM education initiatives) funding curriculum development for agentic AI in finance education
- Assessment frameworks measuring student competency in AI-augmented financial analysis, prompt engineering, and AI governance
- Federal student aid incentives for programs meeting enhanced AI education standards

This approach builds upon existing precedents like the Department of Defense's Cybersecurity Workforce Framework and the National AI Initiative Act of 2020, extending these models specifically to financial services education. By embedding AI competencies as accreditation requirements, the government can drive systematic curriculum modernization across thousands of institutions without direct federal control over curriculum content.

#### **Tier 2: Labor Department Workforce Retraining Programs**

The Department of Labor should launch targeted retraining initiatives for displaced financial services workers, recognizing that current employees face immediate displacement risks. Drawing inspiration from Trade Adjustment Assistance (TAA) programs, we propose:

- "AI Transition Assistance for Financial Professionals" providing tuition support, income replacement, and career counseling for workers whose roles are automated
- Industry-education partnerships (modeled on registered apprenticeships) creating pathways for traditional financial advisors to upskill into AI-augmented advisory roles
- Certification programs in "AI Financial Planning Specialist" credentials, recognized by regulators and industry employers
- Competitive grants to community colleges and regional universities for developing intensive AI financial literacy boot camps

Critical to this framework is recognition that displaced workers often lack resources for extended retraining. Programs must provide income support and accelerated credentialing pathways, not merely tuition assistance. The financial services industry's high average wages justify substantial public investment to prevent permanent workforce exit and associated social costs. The transformative role of agentic GenAI in shaping workforce development and education in the US is critical [26].

### **Tier 3: Treasury and SEC Regulatory Innovation**

Financial regulators should leverage their authority to create market incentives for AI education and ethical deployment:

- SEC recognition of enhanced AI governance standards (analogous to NIST AI RMF [21]) as factors in examination risk assessment, providing compliance incentives for firms investing in workforce AI education
- Treasury support for industry-led "AI Ethics and Governance Certification" programs, creating portable credentials for financial professionals demonstrating AI oversight competencies
- Regulatory safe harbors for firms adopting comprehensive AI training programs, reducing compliance uncertainty during technology transition
- Public disclosure requirements for AI usage in advisory services, creating transparency that rewards firms with well-trained, AI-literate workforces

This regulatory approach follows the model of Regulation Best Interest (Reg BI), using disclosure and standards to shape industry behavior while preserving innovation flexibility. By making AI competency visible through required disclosures, regulators can leverage market forces to drive workforce development without prescriptive mandates [4], [20]. AI governance and the verification gap present a framework for law and policy under computational intractability [27].

### ***C. State-Level Implementation: Regional Workforce Partnerships***

While federal frameworks provide standards and funding, effective implementation requires state-level adaptation to regional economic conditions. We propose state governments establish "Financial Services AI Workforce Councils" bringing together:

- State labor departments coordinating displaced worker services
- Public university systems modernizing finance curricula
- Regional RIAs and financial institutions providing internship pathways
- Community colleges developing bridge programs for career changers
- State securities regulators ensuring alignment with compliance requirements

States with significant financial services employment (New York, Massachusetts, Illinois, California, Texas) have particular urgency and capacity to lead. These states should pilot innovative models such as:

- "AI Financial Planning Apprenticeships" combining academic coursework with supervised practice in AI-augmented advisory
- State tax incentives for firms hiring and training workers in AI financial competencies
- Public-private partnerships funding AI lab infrastructure at regional universities
- Regional competency certifications portable across state lines but tailored to local industry clusters

**D. Addressing Permanent Job Loss Through Economic Transition Support**

Beyond retraining, policy must confront reality: some job categories will permanently disappear. Middle-office roles in trade processing, routine compliance monitoring, and basic portfolio rebalancing are prime candidates for full automation through agentic systems [2], [5]. Government policy should therefore include:

**Early Warning Systems:** The Bureau of Labor Statistics should develop AI-augmented occupational forecasting specifically for financial services, providing workers years of advance notice for high-risk roles. This enables proactive career transitions rather than reactive unemployment.

**Portable Benefits Modernization:** As financial services shift toward contract-based and gig work (partially driven by AI enabling smaller firms), federal policy should support portable health insurance, retirement benefits, and unemployment insurance not tied to traditional employment. This reduces exit barriers from declining roles and entry barriers to new AI-augmented positions.

**Geographic Transition Support:** Financial services jobs concentrate in specific metros (New York, Boston, Chicago, San Francisco, Charlotte). AI-driven consolidation may amplify geographic concentration or enable dispersion. Policy should include relocation assistance and remote work infrastructure investment to prevent regional economic devastation.

**Social Safety Net Enhancement:** During transition periods (estimated 5-15 years for full transformation), unemployment insurance, SNAP, and healthcare subsidies require enhancement to support displaced workers pursuing retraining. The costs are substantial but far less than permanent workforce exit and associated social problems.

**E. International Competitiveness and Offshore Mitigation**

To address offshore outsourcing specifically, US policy must ensure domestic workers possess competencies unavailable abroad or difficult to replicate remotely:

**Emphasis on Relationship and Judgment Skills:** Financial planning education should double down on uniquely human competencies—deep client relationship management, complex family dynamics navigation, behavioral finance application, and ethical judgment in ambiguous situations. These competencies are difficult to offshore and create defensible competitive advantages when combined with AI technical skills.

**Regulatory Arbitrage Reduction:** SEC and state regulators should scrutinize offshore advisory service providers for compliance with US fiduciary standards, creating friction that preserves some domestic employment. However, this must be balanced against protectionist overreach that harms consumers through reduced competition.

**National Security Considerations:** Financial infrastructure has national security implications. Policy should consider whether critical financial advisory functions require domestic workforce requirements, similar to defense industry restrictions. This is particularly relevant for AI

systems managing retirement security for millions of Americans.

**Strategic Investment in AI Leadership:** Rather than defensive protectionism, the optimal strategy is offensive investment ensuring the US leads in AI financial services innovation. This requires sustained federal research funding (through NSF, NIST, financial regulators), university-industry partnerships, and immigration policies attracting global AI talent to US institutions. Agentic Generative AI and the future US workforce are crucial for advancing innovation and national competitiveness [28].

**F. Synthesis: A Comprehensive Government Strategy**

Addressing AI-driven workforce transformation in financial services requires coordinated action across federal agencies, state governments, educational institutions, and industry. The core strategic principle is *proactive adaptation over reactive protection*. Rather than attempting to preserve obsolete job categories, policy should:

1. **Accelerate workforce transition** through generous retraining funding and income support
1. **Modernize educational infrastructure** to produce graduates with AI-augmented financial competencies
2. **Create regulatory incentives** for ethical AI deployment and workforce development
3. **Support displaced workers** through enhanced safety nets and transition assistance
4. **Invest in US competitive advantages** in AI financial services innovation

The economic stakes are substantial. Financial services employ over 6 million Americans with median wages exceeding \$70,000. Allowing unmanaged technological displacement risks economic disruption comparable to manufacturing automation, but compressed into a shorter timeframe. The agentic AI revolution in finance is not hypothetical—it is occurring now, as documented in our analysis of operational models achieving 50-70% cost reductions while maintaining fiduciary standards as shown in figure 7.

Government has both economic and social imperatives to act decisively. The policy framework outlined here provides a starting point for comprehensive response, but requires urgent implementation. Every year of delay leaves thousands of workers unprepared for inevitable transformation and cedes competitive advantages to international competitors. The time for planning has passed; the time for action is now. Generative AI: Mitigating workforce and economic disruptions while strategizing policy responses for governments and companies is essential [29].

**VIII. CORE COMPETENCIES FOR THE AGENTIC AI ERA**

We define five core competency domains that must be integrated into modern finance education, expanding upon traditional CFP Board standards and CFA principles.

Table IV. Core Competency Domains for Agentic Financial Planning Education

Domain	Learning Objectives	Example Topics / Skills
1. AI & Data Literacy	Understand foundational AI/ML concepts, data pipelines, and limitations in financial contexts.	Types of AI (GenAI vs. Agentic), data sourcing/cleaning, understanding model confidence, hallucination risks.

<b>2. Tool Proficiency &amp; Prompt Engineering</b>	Ability to effectively interact with and guide AI tools to perform financial tasks.	Crafting prompts for financial analysis, using agent frameworks (CrewAI), interpreting multi-agent workflows.
<b>3. Augmented Financial Analysis</b>	Apply traditional finance expertise to oversee, validate, and synthesize AI-generated insights.	Auditing an AI due diligence report, stress-testing AI portfolio recommendations, blending quantitative and qualitative analysis.
<b>4. Governance, Risk, &amp; Compliance (GRC)</b>	Implement governance frameworks for AI systems and ensure regulatory adherence.	NIST AI RMF mapping [21], SEC compliance automation [19], creating an AI Use Policy [15].
<b>5. Ethics &amp; Professional Judgment</b>	Navigate ethical dilemmas unique to AI-augmented financial advice and maintain fiduciary duty.	Bias detection, transparency with clients, human-in-the-loop protocols, accountability for AI errors.

**A. A Multi-Tiered Curricular Integration Framework**

A one-size-fits-all approach is ineffective. We propose a scalable, tiered integration model that institutions can adapt based on resources and program depth. Table 4 describes the core competencies.

**B. Tier 1: Foundational AI Literacy (All Business/Finance Students)**

**Target:** Introductory courses (e.g., Principles of Finance, Introduction to Business). **Approach:** Embed 2-3 dedicated modules.

- **Module:** "AI in Finance: An Overview." Case studies on robo-advisors, algorithmic trading, and GenAI in research.
- **Activity:** Students use a chatbot (e.g., ChatGPT with a finance persona) to generate a basic company summary and then critique its limitations.
- **Learning Outcome:** Students can describe key AI applications and inherent risks in finance.

**C. Tier 2: Specialized Course – "Agentic AI in Financial Planning"**

**Target:** Upper-level undergraduate or Master’s elective. **Approach:** A dedicated, project-based course.

Table: Sample Syllabus: Agentic AI in Financial Planning

Week	Topics	Hands-On Lab / Project Component
1-2	Intro to GenAI & Agentic AI; The Future of Advisory	Compare & contrast leading finance AI tools (e.g., Bloomberg GPT, Bloomberg & GPT)
3-4	Data Ecosystems for AI Finance	Ingest SEC EDGAR data; build a simple vector database for financial documents.
5-6	AI for Due Diligence & Investment Research	Use CrewAI/LangChain to create a research agent that analyzes a 10-K filing.
7-8	AI for Portfolio Construction & Risk Management	Interact with an AI portfolio optimizer; backtest AI-suggested allocations.
9-10	Compliance Automation & AI Governance	Draft an AI Use Policy for a mock RIA; use an AI agent to scan sample marketing text for compliance issues.
11-12	Client Communication & Personalization	Design a prompt sequence for a client portfolio review meeting.
13-14	Ethics, Bias, & Regulatory Landscape	Case study analysis: SEC enforcement action for AI-washing [18].
15	Final Project Presentations	Student teams present a prototype agentic workflow for a specific financial planning task.

**IX. Tier 3: Augmentation of Core Finance Courses**

**Target:** Core courses like Investments, Portfolio Management, Financial Modeling, Ethics. **Approach:** Redesign key assignments and modules.

- **Investments:** Add a lab where students use an AI macro agent to generate a market outlook, then debate its conclusions based on traditional business cycle analysis.
- **Portfolio Management:** Final project involves using an AI tool for asset allocation, then writing a justification paper defending or overriding the AI’s proposal.

- **Ethics for Financial Professionals:** Introduce new case studies on AI transparency, data privacy with client information fed to models, and managing client expectations about AI.

**A. Tier 4: Interdisciplinary Capstone & Partnerships**

**Target:** Capstone courses, interdisciplinary projects. **Approach:** Partner with Computer Science departments.

- **Project:** Finance students define the problem (e.g., "automate ESG scoring for small-cap stocks") and provide domain expertise. CS students build the prototype agentic system. Jointly, they develop the governance documentation.

- **Outcome:** Simulates real-world, cross-functional team dynamics.

## X. PEDAGOGICAL METHODS & ASSESSMENT STRATEGIES

### A. Active Learning Strategies

- **Simulation Labs:** Use cloud-based platforms (e.g., Google Colab, AWS Educate) to provide sandboxed access to AI APIs and frameworks.
- **Case Studies:** Utilize real-world cases of AI success and failure in finance (e.g., [18], [30]).
- **Role-Playing:** Students role-play as a CCO (Chief Compliance Officer) reviewing an AI agent's trading recommendations, or as an advisor explaining AI-driven advice to a skeptical client.

### B. Assessment

Move beyond traditional exams to competency-based assessment:

- **Prompt Portfolio:** Students submit a collection of refined prompts for different financial tasks, with annotations explaining their design choices.
- **Audit Report:** Given an AI-generated investment memo, students produce an audit report identifying strengths, weaknesses, missing data, and potential biases.
- **Policy Design:** Create a comprehensive AI Governance Policy for a hypothetical firm, covering tool usage, data handling, human review, and client disclosure.

Table 5 describes the structure of the curriculum.

## XI. ADDRESSING IMPLEMENTATION CHALLENGES

### A. Faculty Development

The biggest hurdle is faculty preparedness. A phased approach is necessary:

1. **Professional Development Workshops:** Summer institutes focused on AI literacy for finance educators, led by industry practitioners or CS faculty.
1. **Learning Communities:** Create faculty groups to co-develop and peer-review new AI-augmented course modules.
2. **Incentives:** Provide course releases, stipends, or recognition for curriculum redesign efforts.

### B. Technology & Resources

- **Partnerships:** Leverage partnerships with cloud providers (AWS, Azure, Google Cloud) for education grants and credits.
- **Open-Source Tools:** Prioritize teaching with open-source frameworks (LangChain, Hugging Face) and locally-run models (Llama) to minimize cost and access barriers.
- **Sandbox Environments:** Deploy pre-configured virtual machines with necessary software for student labs.

### C. Accreditation & Stakeholder Alignment

- **Engage Accrediting Bodies:** Proactively work with AACSB and CFP Board to discuss how these

new competencies align with and enhance existing accreditation standards.

- **Advisory Boards:** Strengthen industry advisory boards with tech-forward professionals to provide guidance and validate curriculum relevance.

## XII. CONCLUSION & CALL TO ACTION

The integration of Agentic AI into financial planning is not a distant future—it is occurring now. Higher education has a critical, time-sensitive role in shaping how this technology is adopted, governed, and used ethically within the profession. The curricular framework presented here provides a concrete starting point for this essential transformation. However, curriculum change alone is insufficient; comprehensive government policy intervention is necessary to address the workforce displacement, offshore outsourcing, and structural economic challenges created by AI-driven transformation.

### A. Immediate Actions for Educational Institutions

We call on finance educators, department chairs, and curriculum committees to:

1. **Conduct a Curriculum Audit** to identify gaps related to AI and data competencies, with specific attention to preparing students for agentic financial systems that fundamentally change job requirements.
1. **Pilot a Tier 1 Module or Tier 2 Course** within the next academic year, recognizing that delayed action leaves graduates unprepared for transformed industry realities.
2. **Invest in Faculty Development** as the cornerstone of successful integration, including partnerships with industry practitioners who understand operational realities of AI-augmented advisory.
3. **Foster Interdisciplinary Collaboration** to build robust, realistic learning experiences that mirror cross-functional team dynamics students will encounter in agentic organizations.
4. **Engage with Policymakers** to shape federal and state workforce development initiatives, ensuring educational programs align with emerging support systems.

### B. Critical Government Policy Priorities

We call on federal and state policymakers to:

1. **Establish AI Literacy Standards** for financial services education through Department of Education accreditation requirements, ensuring systematic curriculum modernization across institutions.
1. **Launch Workforce Retraining Programs** through the Department of Labor providing income support and accelerated credentialing for displaced financial services workers, preventing permanent workforce exit.
2. **Create Regulatory Incentives** through SEC and Treasury to reward firms investing in workforce AI education and ethical deployment, using market forces to drive responsible adoption.
3. **Fund Regional Workforce Partnerships** connecting state labor departments, university systems, and industry to implement localized

transition support tailored to regional economic conditions.

4. **Enhance Social Safety Nets** to support workers during the 5-15 year transition period, including unemployment insurance, portable benefits, and geographic relocation assistance.
5. **Invest in US Competitive Advantages** through sustained research funding, university-industry partnerships, and talent attraction policies that ensure domestic leadership in AI financial services innovation.

### C. Industry Responsibilities and Partnerships

Financial services firms must also act as partners in workforce development:

1. **Industry Advisory Board Enhancement** with technology-forward professionals providing curriculum guidance and validation of competency relevance.
1. **Internship and Apprenticeship Programs** offering students hands-on experience with agentic systems while creating hiring pipelines for AI-literate professionals.
2. **Incumbent Worker Training** investing in upskilling current employees rather than simply replacing them with AI systems, fulfilling social responsibility while maintaining institutional knowledge.
3. **Ethical AI Deployment Standards** industry-wide adoption of governance frameworks (like NIST AI RMF [21]) that create demand for AI-literate oversight professionals.

### D. The Stakes: Why Urgent Action Matters

The convergence of technological capability and economic incentive creates inexorable momentum toward agentic financial services. As our companion research demonstrates, small teams can already achieve 50-70% cost reductions while enhancing analytical depth through AI automation. This economic reality will drive adoption regardless of workforce readiness. The question is not whether transformation occurs, but whether it occurs through managed transition or disruptive displacement.

Without proactive intervention, likely outcomes include:

- **Mass Displacement** of middle-office and junior advisory professionals lacking AI competencies
- **Offshore Migration** of AI-enhanced advisory services to lower-cost international providers
- **Talent Shortage** as rapid industry transformation outpaces educational system adaptation
- **Regulatory Failures** as undertrained advisors misuse powerful AI tools, harming clients and eroding trust
- **Competitive Decline** of US financial services as other nations invest more aggressively in AI workforce development

Conversely, decisive action creates opportunity for:

- **Enhanced Career Pathways** where AI augmentation elevates rather than eliminates financial planning professionals
- **Democratic Access** to sophisticated financial advice through efficient AI-augmented delivery
- **Global Leadership** in ethical, human-centered AI financial services setting international standards

- **Economic Growth** through productivity gains and new service categories enabled by agentic systems
- **Workforce Resilience** as adaptable professionals navigate ongoing technological change throughout careers

### E. A Vision for Human-AI Symbiosis

By embracing this change proactively through coordinated educational reform and government policy intervention, we can ensure graduates and incumbent workers are not displaced by AI but are empowered to lead its responsible application. The future of finance must preserve the humanistic core of financial planning—trust, judgment, empathy, and client relationship—while leveraging the transformative power of intelligent systems for enhanced analytical capability and operational efficiency.

This requires fundamental reconception of financial education from training in specific techniques to developing adaptive competencies for lifelong learning. It requires government policy that views workforce development as strategic investment rather than discretionary expense. It requires industry leadership that balances efficiency gains with social responsibility. Most fundamentally, it requires recognition that technological transformation is not merely about adopting new tools, but about reimagining the profession itself.

The agentic AI revolution in financial services presents both existential threat and unprecedented opportunity. The choices we make now—in curriculum design, policy formulation, and resource allocation—will determine whether this transformation strengthens or hollows out the financial advisory profession. We have outlined a comprehensive framework for positive transformation. The responsibility for implementation rests with educators, policymakers, and industry leaders. A comprehensive review of artificial general intelligence AGI, agentic AI and GenAI highlights current trends and future directions [7].

### F.

- ERIC should consider a special topic section or curated collection on "AI and the Future of Professional Education" to aggregate relevant curriculum designs and pedagogical research.
- Further research is needed to assess the effectiveness of different integration models (Tier 1 vs. Tier 2) on student learning outcomes and career readiness.
- Longitudinal studies tracking the career progression of graduates from AI-augmented finance programs versus traditional programs would provide valuable evidence for curriculum investment.

### DECLARATION

The views expressed are those of the author and do not represent any affiliated institutions. This work is conducted as part of independent research. This is a review paper, and all results, proposals, and findings are derived from the cited literature. The author does not claim any novel findings. The author's work was to review and organize existing research. The LaTeX code in this paper was developed with the assistance of GitHub Copilot and edited through DeepSeek. This is a working paper and edits are expected in the next version.

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