

Proposed Course Materials for "Utilizing AI Across Business Disciplines"

As an AI Strategist and Enterprise Architect, I've reviewed the business program offerings at both Mount Mercy University and St. Ambrose University based on their publicly available information.

- **Mount Mercy University** offers undergraduate majors in Accounting, Finance, Marketing, Management, Human Resource Management, Sport Management, and general Business. Minors include Economics, Finance, Accounting, and Human Resource Management. Graduate programs include MBA (with emphases in Business Administration, Finance, Health Care Administration, Human Resources, and Leadership), Master of Strategic Leadership, and Master of Science in Supply Chain Management.
- **St. Ambrose University** offers Bachelor of Business Administration (BBA) majors in Accounting, Economics, Finance, Management, Marketing, and International Business, along with a BA in Sport Management and a BBA in Business Sales. Graduate programs include Master of Accounting, MBA, and Master of Organizational Leadership.

Disciplines **not explicitly offered** as dedicated majors or emphases at either university (based on standard business curricula) include Entrepreneurship, Operations Management, Management Information Systems (MIS)/IT Management, Hospitality/Tourism Management, and Real Estate. I've included these in the table below to support potential expansion, as the universities could integrate AI-focused content to bridge gaps or create new offerings.

The table below outlines recommended course materials/topics, structured by business discipline. Each entry includes key AI applications, learning objectives, and example activities or case studies. This is designed for a modular course (e.g., 3-4 credits, hybrid format) that could be offered at the graduate level, aligning with both universities' emphases on practical, experiential learning. The content emphasizes ethical AI use, integration with existing tools (e.g., ChatGPT, Tableau AI features), and real-world applicability to prepare students for AI-driven business transformations.

Discipline	Key AI Applications/Materials	Learning Objectives	Example Activities/Case Studies
Accounting (Offered at both)	AI for automated auditing, fraud detection algorithms, predictive financial reporting, blockchain-integrated AI for compliance.	Understand how AI enhances accuracy and efficiency in financial data processing; evaluate ethical implications of AI in audits.	Case study: AI detection of Enron-like fraud; hands-on with tools like QuickBooks AI or IBM Watson for anomaly detection.
Finance (Offered at both)	AI in algorithmic trading, risk modeling (e.g., Monte Carlo simulations with ML), robo-advisory systems, credit scoring via neural networks.	Analyze AI's role in financial forecasting and risk mitigation; apply AI to portfolio optimization.	Simulation: Building a simple AI trading bot using Python libraries; review of Vanguard's AI robo-advisors.

Marketing (Offered at both)	AI-driven customer segmentation, sentiment analysis on social media, personalized recommendation engines, predictive analytics for campaigns.	Leverage AI for data-driven marketing strategies; measure ROI of AI tools in consumer behavior analysis.	Project: Using Google Analytics AI or HubSpot for targeted ads; case on Netflix's recommendation system.
Management (Offered at both)	AI for decision support systems, performance analytics, agile project management with AI tools, leadership in AI-transformed organizations.	Integrate AI into managerial processes; develop strategies for AI adoption in teams.	Workshop: AI-enhanced SWOT analysis; study on how Amazon uses AI for warehouse management.
Human Resource Management (Offered at Mount Mercy; adaptable for St. Ambrose)	AI in talent acquisition (resume screening), employee engagement chatbots, predictive turnover models, diversity analytics.	Apply AI to HR functions while addressing bias; design AI-inclusive HR policies.	Exercise: Implementing LinkedIn AI recruiting tools; case on Google's People Analytics.
Economics (Offered at St. Ambrose as minor/major; minor at Mount Mercy)	AI for econometric modeling, market forecasting, behavioral economics simulations, policy impact analysis with big data.	Use AI to interpret economic trends; critique AI's limitations in macroeconomic predictions.	Analysis: AI forecasting of GDP using tools like R or Stata with ML extensions; review of AI in Federal Reserve models.
International Business (Offered at St. Ambrose; potential expansion for Mount Mercy)	AI for cross-border supply chain optimization, currency fluctuation prediction, cultural sentiment analysis in global markets.	Evaluate AI's impact on global trade; develop strategies for AI in multinational operations.	Case: AI in Alibaba's global logistics; simulation of forex trading with AI.
Supply Chain Management (Offered at Mount Mercy as MS; potential for St. Ambrose)	AI for inventory optimization, demand forecasting, route planning with ML, sustainability tracking via IoT-AI integration.	Optimize supply chains using AI; assess resilience in disrupted environments.	Project: Using SAP AI for supply chain simulation; case on Walmart's AI inventory system.

Sport Management (Offered at both)	AI in fan engagement analytics, player performance prediction, ticket pricing optimization, injury risk assessment.	Apply AI to sports business operations; analyze data ethics in athletics.	Study: MLB's use of AI for scouting; hands-on with Fanatics AI merchandising tools.
Organizational Leadership (Offered at St. Ambrose as MS; similar to Mount Mercy's Strategic Leadership)	AI-assisted change management, leadership coaching bots, team dynamics simulation, ethical AI governance frameworks.	Lead AI initiatives in organizations; foster innovation through AI.	Role-play: Implementing AI in corporate restructuring; case on Microsoft's AI leadership training.
Entrepreneurship (Not offered at either; for expansion)	AI for idea validation, market gap analysis, startup funding prediction, automated business plan generation.	Use AI to accelerate entrepreneurial processes; mitigate risks in new ventures.	Pitch exercise: AI-generated business models via tools like IdeaBuddy; study on AI in Y Combinator startups.
Operations Management (Not offered at either; for expansion)	AI in process automation, quality control via computer vision, lean manufacturing with predictive maintenance.	Streamline operations using AI; integrate with ERP systems.	Simulation: AI-optimized factory floor using Siemens tools; case on Tesla's AI production lines.
Management Information Systems (MIS)/IT Management (Not offered at either; for expansion)	AI in cybersecurity threat detection, data governance, cloud AI integration, IT project management with AI.	Manage AI infrastructure; ensure secure AI deployments.	Lab: Building an AI dashboard with Azure or AWS; review of ransomware prevention via AI.
Hospitality/Tourism Management (Not offered at either; for expansion)	AI for personalized guest experiences, revenue management, sentiment analysis from reviews, virtual tours with AR-AI.	Enhance service industries with AI; predict tourism trends.	Case: Hilton's AI concierge; project on TripAdvisor AI recommendations.
Real Estate (Not offered at either; for expansion)	AI for property valuation models, market trend forecasting, virtual staging, predictive maintenance in facilities.	Apply AI to real estate transactions; analyze investment opportunities.	Analysis: Zillow's AI pricing algorithm; simulation of AI-driven property auctions.

This curriculum could span 10-12 weeks, with modules mixing lectures, guest speakers (e.g., from local Iowa businesses like Rockwell Collins or Principal Financial), and capstone projects where students apply AI to a business problem relevant to the universities' regional economy (e.g., agriculture or manufacturing in Iowa). To implement, I'd recommend piloting with existing faculty in Management or MBA programs, and incorporating tools like Microsoft Copilot or Google Cloud AI for hands-on elements.

Updated Proposed Course Materials for "Utilizing AI Across Business Disciplines"

I've incorporated a mandatory module on **AI Ethics in Business** as the foundational component of the course. This ensures all students engage with ethical considerations before diving into discipline-specific applications, aligning with best practices for responsible AI integration. It can be positioned as Week 1-2 content, with assessments requiring students to apply ethical frameworks to subsequent modules. This addition draws from emerging standards in AI education, emphasizing bias mitigation, privacy, accountability, and societal impact in business contexts.

The table below has been updated to include this as the first entry. I've kept the structure modular for flexibility, allowing Mount Mercy and St. Ambrose to adapt based on their graduate programs (e.g., MBA or Strategic Leadership). The full course could now span 12-14 weeks to accommodate the ethics module.

Discipline	Key AI Applications/Materials	Learning Objectives	Example Activities/Case Studies
AI Ethics in Business (Mandatory core module; not a standalone discipline but integrated across programs)	Ethical frameworks (e.g., IEEE AI Ethics guidelines), bias detection in algorithms, data privacy laws (GDPR, CCPA), responsible AI deployment in corporate settings, societal impacts like job displacement.	Critically evaluate AI's ethical risks in business; develop policies for fair AI use; promote inclusive decision-making.	Debate: AI in hiring (e.g., Amazon's biased recruiting tool); project: Auditing a business AI tool for ethical compliance using frameworks from NIST or EU AI Act.
Accounting (Offered at both)	AI for automated auditing, fraud detection algorithms, predictive financial reporting, blockchain-integrated AI for compliance.	Understand how AI enhances accuracy and efficiency in financial data processing; evaluate ethical implications of AI in audits.	Case study: AI detection of Enron-like fraud; hands-on with tools like QuickBooks AI or IBM Watson for anomaly detection.

Finance (Offered at both)	AI in algorithmic trading, risk modeling (e.g., Monte Carlo simulations with ML), robo-advisory systems, credit scoring via neural networks.	Analyze AI's role in financial forecasting and risk mitigation; apply AI to portfolio optimization.	Simulation: Building a simple AI trading bot using Python libraries; review of Vanguard's AI robo-advisors.
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This updated curriculum reinforces ethical AI as a pillar, potentially earning accreditation points from bodies like AACSB. For implementation, consider requiring it as a prerequisite for other modules or embedding ethical checkpoints in assignments.

AI-Related Offerings from Nearby Universities for Inspiration

To support expansion at Mount Mercy and St. Ambrose, I've reviewed AI-related degrees, certificates, and courses at the University of Iowa (UIowa) and Iowa State University (ISU). These could inform collaborations, such as shared faculty resources or dual-enrollment options, given their proximity in Iowa. Below is a summary of key programs, focusing on those with business relevance where applicable.

University of Iowa

- **Undergraduate Certificate in Artificial Intelligence:** Launching in fall 2026, open to all majors, emphasizing broad AI applications.
- **HawkAI Certificate (Level 1):** Online, no-cost program for AI basics, no prior experience needed; boosts employability in AI landscapes.
- **Graduate Certificate in Artificial Intelligence and Machine Learning:** Offered through Tippie College of Business, focuses on cutting-edge skills like deep learning; available starting Fall 2025.
- **Artificial Intelligence, Modeling and Simulation in Engineering Certificate:** 18 semester hours, includes capstone; undergrad and grad levels, with business modeling applications.
- **Artificial Intelligence and Technology Management Professional Certificate:** Business-focused, for leveraging AI competitively; open to professionals.

Iowa State University

- **M.S. in Artificial Intelligence:** Two-year graduate program covering AI principles, machine learning, computer vision, and more; prepares for research and industry roles.
- **Applied Artificial Intelligence Minor:** Undergraduate, provides foundational AI knowledge for practical use across fields.
- **Artificial Intelligence Minor:** Focuses on AI and machine learning principles; undergrad level.
- **TrAC Micro-Credential Short Courses:** Industry-oriented, for professionals in translational AI; flexible and targeted.

- **Key Courses:** AI 2010 (Introduction to Applied AI), AI 2020 (Ethical Design, Use, and Impact of AI – highly relevant to our ethics module), COMS 4720/5720 (Principles of AI), and advanced topics in computer science.

These offerings highlight opportunities for Mount Mercy and St. Ambrose to benchmark against larger institutions, perhaps by adopting similar certificate models or incorporating ethics-focused courses like ISU's AI 2020.

If you'd like to explore partnerships (e.g., guest lectures from UIowa/ISU faculty) or further customize the curriculum, I'm happy to discuss!

Incorporating AI into Faith-Based Courses at Mount Mercy University

Mount Mercy University, rooted in Catholic traditions and the Sisters of Mercy values (e.g., compassion, justice, and hospitality), offers a Religious Studies (RS) major and minor that emphasize theological themes, ethical reasoning, and scriptural study. Key faith-based courses include:

- **RS 110: Christian Moral Life** – Explores moral decision-making through Christian lenses.
- **RS 111: Introduction to the Bible: Old Testament** – Surveys origins, development, and themes of the Old Testament.
- **RS 113: Introduction to the Bible: New Testament** – Focuses on New Testament themes and contexts.
- **RS 284: Topics in Religious Studies** – Variable topics in Western religious traditions, often tied to contemporary issues.
- Other relevant courses: RS 115: Introduction to World Religions, RS 370: Christian Ethics in Healthcare (if applicable), and advanced theology electives emphasizing Catholicism.

These courses align with the university's mission to foster spiritual growth and service. Incorporating AI can enhance learning by providing tools for deeper engagement, analysis, and application, while reinforcing faith foundations. AI should be positioned as a servant to human discernment, not a replacement for divine inspiration or personal reflection. This respects Catholic teachings (e.g., from papal encyclicals like *Laudato Si'* on technology's role in stewardship) and avoids any implication of AI as idolatrous.

I've structured suggestions below in a table, similar to our prior business-focused curriculum. Each entry proposes AI integrations either **within existing courses** (e.g., as modules or assignments) or **as complementary additions** (e.g., workshops, certificates, or standalone tools). The mandatory **AI Ethics in Business** module from our previous discussion can be adapted here as **AI Ethics in Faith Contexts**, focusing on theological ethics like human dignity, bias in AI mirroring sin, and technology as a gift from God.

Course/Discipline	AI Integration Approach (Within or Complementary)	Key AI Applications/Materials	Learning Objectives	Example Activities/Case Studies
AI Ethics in Faith Contexts (Mandatory foundational module; adapted for all faith courses)	Complementary: Add as a prerequisite workshop or integrated unit across RS courses.	Theological frameworks (e.g., Vatican guidelines on AI), bias in AI vs. original sin, AI's role in promoting mercy and justice, privacy in light of confession/sacramentality.	Evaluate AI through Catholic social teaching; discern ethical use in faith practices.	Debate: Pope Francis' views on AI (from <i>Fratelli Tutti</i>); project: Auditing AI tools for alignment with Mercy values.

RS 110: Christian Moral Life	Within: Embed AI in ethical case studies. Complementary: AI simulation tools for moral dilemmas.	AI for scenario modeling (e.g., ethical decision trees), predictive analytics on moral outcomes, chatbots simulating moral dialogues.	Apply Christian ethics to AI dilemmas (e.g., AI in warfare vs. just war theory); foster moral imagination.	Simulation: Using AI to model outcomes of moral choices in biblical parables; case on AI in end-of-life decisions tying to healthcare ethics.
RS 111: Introduction to the Bible: Old Testament	Within: Use AI for textual enhancement during lectures. Complementary: Online AI companion for self-study.	Natural language processing for theme mapping (e.g., covenant motifs), AI-generated timelines or maps of Old Testament events, sentiment analysis of prophetic texts.	Deepen scriptural understanding without supplanting prayerful reading; critically assess AI's interpretive limits.	Activity: AI tool (e.g., custom GPT) to cross-reference Old Testament verses; group discussion on AI vs. divine revelation, with case from Genesis creation narratives.
RS 113: Introduction to the Bible: New Testament	Within: Integrate into exegesis assignments. Complementary: AI-assisted devotionals.	AI for concordance building (e.g., keyword searches in Gospels), visualization of parables (e.g., AI art of the Good Samaritan), predictive modeling of apostolic journeys.	Enhance appreciation of New Testament mercy themes; reflect on AI as a tool for evangelization.	Project: AI-generated audio narrations of Epistles; case study on using AI for modern translations, discussing fidelity to original texts.
RS 284: Topics in Religious Studies (e.g., Contemporary Faith Issues)	Within: Dedicate a topic session to "AI and Theology." Complementary: Guest speaker series on tech-faith intersections.	AI for analyzing religious trends (e.g., social media sentiment on faith topics), virtual reality simulations of historical religious sites.	Explore how AI intersects with Western traditions; apply Mercy charism to tech equity.	Workshop: AI analysis of online religious discourse; case on AI in interfaith dialogue, drawing from Vatican II.
General Faith-Based Electives (e.g., World Religions, Theology Seminars)	Complementary: University-wide AI-Faith Certificate or club activities.	AI for comparative religion analysis (e.g., common themes across scriptures), chatbots for factual Q&A on doctrines, AI in service learning (e.g., data analysis for mercy outreach).	Promote interfaith understanding via AI; integrate technology with spiritual formation.	Capstone: AI-powered app for tracking personal faith journeys; study on AI in religious art, like generating icons while discussing iconoclasm.

These integrations can start small—e.g., piloting in one course like RS 111—with faculty training on tools like Google Bard or Microsoft Copilot, customized for scriptural use. To ensure alignment with Mount Mercy's faith grounding, involve the campus ministry or Sisters of Mercy in oversight, perhaps through an AI-Faith Advisory Committee. This could also tie into broader AI expansion (e.g., linking to business ethics modules). Benefits include attracting tech-savvy students while upholding Catholic identity, potentially leading to unique offerings like a "Mercy AI Initiative" for service projects.

Expanded Module: AI Ethics in Faith Contexts

Building on our prior discussions for integrating AI into Mount Mercy University's faith-based curriculum, I've expanded the "AI Ethics in Faith Contexts" module into a comprehensive, standalone component. This is designed as a mandatory foundational module (e.g., 2-3 weeks in a semester-long course or a dedicated 1-credit workshop), adaptable for Religious Studies courses like RS 110 (Christian Moral Life) or RS 284 (Topics in Religious Studies). It aligns with Mount Mercy's Catholic heritage and the Sisters of Mercy values, emphasizing AI as a tool for stewardship, justice, and compassion rather than a substitute for divine wisdom or human relationships.

The expansion draws from official Catholic teachings, particularly the Vatican's "Antiqua et Nova" document (2025) and the Rome Call for AI Ethics (2020), which provide a theological framework for ethical AI use. Pope Francis's insights—such as viewing AI through a "wisdom of the heart" that integrates decisions with consequences and prioritizes human dignity—serve as core guiding principles. This module ensures AI is critiqued and applied in ways that uphold *imago Dei* (humans as made in God's image), promote the common good, and avoid technocratic paradigms that dehumanize.

Module Overview

- **Format:** Hybrid (in-person discussions for relational emphasis, online tools for AI demonstrations). Assessments include reflective essays, group debates, and a capstone project auditing an AI tool for faith alignment.
- **Prerequisites:** None, but recommended for students in RS or business programs.
- **Rationale:** In a faith-grounded institution like Mount Mercy, AI ethics must transcend secular frameworks (e.g., bias mitigation) to include theological dimensions, such as AI's potential to aid mercy works while risking idolatry or inequality.
- **Integration:** Embed ethical checkpoints in other AI modules (e.g., business or biblical studies); link to campus ministry for service projects using AI for social justice.

Key Subtopics/Units

The module is structured into four units, each with readings, discussions, and applications tied to Catholic doctrine.

Unit	Focus	Key Content & Theological Ties	Learning Objectives	Example Activities/Assignments
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Unit 1: Foundations of Human Intelligence in Faith (Week 1)	Distinguishing AI from human intelligence as a divine gift.	Explore human intelligence as rational, embodied, relational, truth-oriented, and stewardship-focused (per St. Thomas Aquinas and Genesis 1:27, 2:15). AI is a human creation, not true intelligence, lacking moral agency or transcendence. Quote: "The very use of the word 'intelligence' in connection to AI 'can prove misleading'" (Pope Francis). Risks include functionalism that reduces humans to outputs.	Understand AI's limits through Catholic anthropology; discern how AI can enhance vs. undermine human dignity.	Reading: Excerpts from "Antiqua et Nova" (Introduction & Sections 7-29). Activity: Journal reflection on Genesis creation narratives—how does AI fit into "subduing the earth" without idolatry?
Unit 2: Ethical Principles for AI in Catholic Teaching (Week 1-2)	Core guidelines from Vatican sources.	Rome Call principles: Transparency, Inclusion, Accountability, Impartiality, Reliability, Security & Privacy. Vatican bans on discriminatory AI, psychological harm, social inequalities, or subliminal manipulation. Tie to Catholic Social Teaching: Common good, subsidiarity, solidarity. AI must promote justice and mercy, not technocracy or exploitation. Quote: "We must make Artificial Intelligence a bulwark against [technocracy's] expansion" (Pope Francis).	Apply Vatican principles to real-world AI; evaluate bias as akin to original sin.	Group debate: Should AI be used in confession apps? (Privacy vs. sacramental integrity). Reading: Rome Call document and Vatican City AI decree.

Unit 3: Risks, Potentials, and Faith Applications (Week 2)	Balancing AI's benefits and dangers in faith contexts.	Potentials: AI for scriptural analysis, mercy outreach (e.g., predictive aid for the vulnerable), environmental stewardship. Risks: Deepfakes eroding truth, surveillance violating conscience, job displacement ignoring human vocation, lethal autonomous weapons contradicting just war theory. Areas: Education (foster critical thinking), healthcare (enhance compassion), warfare (ban autonomous weapons), relationships (avoid isolation). Quote: "Only by adopting a spiritual way of viewing reality... can we confront and interpret the newness of our time" (Pope Francis).	Assess AI's societal impacts through Mercy lens; propose faith-based mitigations.	Case study: AI in healthcare ethics (e.g., end-of-life decisions) vs. Christian moral life. Project: Analyze an AI tool (e.g., ChatGPT) for risks like misinformation, using "Antiqua et Nova" criteria.
Unit 4: Wisdom of the Heart and AI Governance (Week 3)	Cultivating spiritual discernment for AI.	Emphasize "wisdom of the heart" (Wisdom 6:12-16) over machine logic; AI as ordered toward the Paschal Mystery. Governance: Human oversight, policies aligning with human fraternity (Fratelli Tutti). Quote: "The 'wisdom of the heart' can illuminate and guide the human-centered use of this technology to help promote the common good" (Pope Francis). Call for interfaith dialogue and global regulation.	Develop personal and institutional AI policies rooted in faith; reflect on AI's role in spiritual growth.	Capstone: Create a "Mercy AI Charter" for Mount Mercy, incorporating Vatican guidelines. Guest speaker: Campus ministry on AI in service learning (e.g., using AI for refugee aid).

Resources & Implementation Notes

- **Core Readings:** "Antiqua et Nova" (full document available on Vatican website) , Rome Call for AI Ethics , Pope Francis's "Fratelli Tutti" and Peace Day messages.
- **Tools:** Ethical AI auditors (e.g., NIST frameworks adapted for faith), custom GPTs for scriptural Q&A with ethical safeguards.
- **Assessment:** 40% reflections/debates, 30% projects, 30% final essay on AI and Mercy values.

- **Faculty Support:** Train via Iowa State University's AI 2020 (Ethical Design of AI) or University of Iowa's HawkAI Certificate, customized for Catholic contexts.
- **Outcomes:** Students will emerge with a faith-informed ethical toolkit, ready to apply AI responsibly in business, ministry, or daily life, fostering a "human-centered" approach as urged by the Vatican.

This expanded module positions Mount Mercy as a leader in faith-integrated AI education. If you'd like to add syllabi templates, sample lesson plans, or further ties to specific RS courses, let me know!

Sample Course Plan

Sample Lesson Plans for AI Ethics in Faith Contexts Module

To enhance the expanded "AI Ethics in Faith Contexts" module, I've developed sample lesson plans for each of the four units. These are designed for a 3-week, 1-credit workshop or as integrated sessions within a semester-long Religious Studies course (e.g., RS 110 or RS 284) at Mount Mercy University. Each lesson plan assumes a 60-90 minute class session (hybrid format: in-person for discussions, online for AI demos), with 15-20 students. They incorporate active learning, reflective practices aligned with Catholic pedagogy, and low-cost tools (e.g., free AI platforms like ChatGPT with ethical safeguards).

Plans include:

- **Objectives:** Tied to unit learning goals.
- **Materials:** Readings, tools, and prep.
- **Agenda:** Timed activities.
- **Assessment:** Formative checks.
- **Homework:** To reinforce faith integration.

These can be scaled or adapted, perhaps linking to Mount Mercy's service-learning requirements (e.g., applying AI ethics to community mercy projects).

Unit 1: Foundations of Human Intelligence in Faith (Week 1, Session 1: 75 minutes)

Objectives: Students will differentiate AI from human intelligence through Catholic anthropology, reflecting on how AI serves (or undermines) human dignity as imago Dei.

Materials:

- Excerpts from Vatican document "Antiqua et Nova" (Sections 7-29; provide PDF or link).
- Bible passages: Genesis 1:27, 2:15 (printed or digital).
- AI demo tool: A simple chatbot (e.g., Grok or ChatGPT) to illustrate "intelligence" limits.
- Whiteboard/markers for mind mapping.

Agenda:

- **Introduction (10 min):** Welcome and icebreaker—share a personal "tech moment" (e.g., "How has AI helped or frustrated you?"). Overview module rationale, tying to Sisters of Mercy values.

- **Lecture/Discussion (20 min):** Present key concepts: Human intelligence as rational, relational, and stewardship-oriented (St. Thomas Aquinas). Contrast with AI's algorithmic nature (quote Pope Francis: "The word 'intelligence' in AI can prove misleading"). Group discussion: How does Genesis portray humans as co-creators with God?
- **Activity (25 min):** Hands-on demo—prompt an AI chatbot with a moral question (e.g., "Is lying ever justified?"). Analyze responses: What lacks (e.g., empathy, transcendence)? Mind map on whiteboard: "AI Strengths vs. Human Gifts."
- **Reflection (15 min):** Guided journaling: "How can AI enhance my faith journey without replacing prayerful discernment?" Share 1-2 insights.
- **Wrap-Up (5 min):** Preview Unit 2; assign homework.

Assessment: Participation in discussion (rubric: engagement, faith ties); journal entry snapshot.

Homework: Read Rome Call for AI Ethics (full document, 5-10 pages); journal one AI use in daily life and its alignment with human dignity.

Unit 2: Ethical Principles for AI in Catholic Teaching (Week 1-2, Session 2: 90 minutes)

Objectives: Students will apply Vatican AI principles to scenarios, evaluating bias and justice through Catholic Social Teaching (CST) lenses like solidarity and the common good.

Materials:

- Rome Call for AI Ethics document and Vatican City AI decree (links or handouts).
- CST overview handout (e.g., from USCCB: subsidiarity, solidarity).
- Case studies: Printed scenarios (e.g., AI hiring tool with gender bias).
- Debate cards with principles (Transparency, Inclusion, etc.).

Agenda:

- **Recap & Check-In (10 min):** Review Unit 1 homework; quick poll: "One takeaway from Rome Call?"
- **Lecture/Discussion (25 min):** Break down Rome Call principles; link to CST (e.g., impartiality combats inequality like in Laudato Si'). Discuss bans: No discriminatory AI or manipulation. Quote: "AI must promote justice and mercy."
- **Activity (30 min):** Small group debates (3-4 students/group)—assign a principle and scenario (e.g., "Should AI be used in confession apps? Debate privacy vs. sacramental integrity using Accountability."). Rotate and vote on strongest arguments.
- **Interactive Demo (15 min):** Use a free AI bias checker (e.g., online tool like Hugging Face) on sample data; discuss as "original sin" in tech.
- **Reflection (5 min):** Silent prayer/meditation on how these principles reflect Mercy charism.
- **Wrap-Up (5 min):** Connect to risks in Unit 3; assign homework.

Assessment: Debate performance (rubric: use of principles, respectful dialogue); group summary notes.

Homework: Analyze a real-world AI ethic issue (e.g., from news: facial recognition in policing) using one Rome Call principle; prepare 1-page reflection tying to CST.

Unit 3: Risks, Potentials, and Faith Applications (Week 2, Session 3: 75 minutes)

Objectives: Students will assess AI's societal impacts (benefits/risks) through a Mercy lens, proposing faith-based applications in areas like education and healthcare.

Materials:

- Excerpts from "Antiqua et Nova" (risk sections) and Pope Francis's Peace Day messages.
- Video clip: 5-min excerpt from Pope Francis on AI (e.g., YouTube Vatican channel).
- Case study packets: AI in healthcare (end-of-life), warfare (autonomous weapons), environment (predictive aid).
- Sticky notes for brainstorming.

Agenda:

- **Introduction (10 min):** Video clip and debrief: "What risks does the Pope highlight?"
- **Lecture/Discussion (20 min):** Explore potentials (e.g., AI for mercy outreach: predicting needs for the vulnerable) vs. risks (deepfakes eroding truth, job displacement ignoring vocation). Tie to Paschal Mystery: Technology ordered toward redemption.
- **Activity (25 min):** Brainstorm carousel—stations for domains (healthcare, education, warfare). Groups rotate, adding potentials/risks on sticky notes, then propose faith mitigations (e.g., "Human oversight in AI weapons to uphold just war theory").
- **Reflection (15 min):** Pair-share: "How can AI aid Mount Mercy's service projects without causing harm?"
- **Wrap-Up (5 min):** Tease governance in Unit 4; assign capstone prep.

Assessment: Brainstorm contributions (rubric: depth, faith integration); pair-share insights.

Homework: Audit a personal AI tool (e.g., social media algorithm) for risks using Unit 2 principles; draft ideas for "Mercy AI Charter."

Unit 4: Wisdom of the Heart and AI Governance (Week 3, Session 4: 90 minutes)

Objectives: Students will cultivate spiritual discernment for AI, developing policies rooted in "wisdom of the heart" and human fraternity.

Materials:

- Bible: Wisdom 6:12-16 (printed).
- Fratelli Tutti excerpts (Pope Francis on fraternity).
- Guest speaker prep: Invite campus ministry rep (or pre-recorded video).
- Template for "Mercy AI Charter" (Google Doc or handout).

Agenda:

- **Recap & Prayer (10 min):** Open with lectio divina on Wisdom 6—reflect on "heart wisdom" vs. machine logic.
- **Lecture/Discussion (20 min):** Emphasize governance: Human-centered policies, interfaith dialogue, global regulation. Quote: "Wisdom of the heart can guide AI for the common good."
- **Guest Integration (15 min):** Speaker on AI in service (e.g., using data for refugee aid); Q&A.
- **Activity (30 min):** Collaborative capstone—groups draft sections of a "Mercy AI Charter" for Mount Mercy (e.g., guidelines for campus AI use, aligning with Vatican bans).
- **Reflection & Sharing (10 min):** Full-group share: "How has this module shaped my view of AI in faith?"
- **Wrap-Up (5 min):** Course evaluation; discuss extensions (e.g., to business AI courses).

Assessment: Charter draft (rubric: incorporation of teachings, creativity); final reflection essay.

Homework: Finalize personal reflection essay (2-3 pages): "AI Ethics Through My Faith Lens," submitting for module credit.

These lesson plans promote experiential learning while grounding AI in Mount Mercy's Catholic identity. They could be piloted in a spring workshop, with feedback from students and faculty.

Additional Details for AI Ethics in Faith Contexts Module

expanded details on rubrics for assessments, sample slides templates (outlined as customizable structures, assuming tools like PowerPoint or Google Slides), adaptations for specific Religious Studies (RS) courses at Mount Mercy University, and strategies for integrating this module with the business curriculum we discussed earlier. This builds on the faith-grounded approach, ensuring AI is framed as a tool for mercy, justice, and human dignity in line with Catholic teachings. These elements are designed to be practical and implementable, with flexibility for faculty (e.g., adjuncts or full-time RS professors). I recommend starting with a faculty development session to customize them, perhaps collaborating with Mount Mercy's Center for Mercy and Justice or campus ministry.

1. Sample Rubrics for Assessments

Rubrics ensure consistent, faith-integrated evaluation. I've provided examples for key assessments from the lesson plans: participation/discussion, reflections/journals, debates, and the capstone project. Each uses a 4-point scale (4=Exemplary, 3=Proficient, 2=Developing, 1=Beginning), with criteria tied to learning objectives and Mercy values. Total points can be scaled (e.g., out of 100).

Assessment Type	Criteria	4 (Exemplary)	3 (Proficient)	2 (Developing)	1 (Beginning)	Weight
Participation/Discussion (e.g., Unit 1 mind mapping or Unit 2 debates)	Engagement & Contribution	Actively contributes insightful ideas, builds on others, integrates faith perspectives seamlessly.	Contributes relevant ideas, responds to peers, includes some faith ties.	Participates minimally, ideas are basic, limited faith integration.	Little to no participation, off-topic or no faith connection.	40%
	Respect & Mercy Values	Demonstrates compassion in dialogue, promotes inclusivity per Catholic Social Teaching (CST).	Shows respect, attempts inclusive language.	Occasional lapses in respect.	Disrespectful or exclusive.	30%
	Faith & Ethical Application	Deeply applies Vatican teachings/AI principles to discussion.	Applies principles adequately.	Superficial application.	No application.	30%

Reflection/Journal (e.g., Unit 1 homework or Unit 4 essay)	Depth of Insight	Profound personal reflection, links AI ethics to scripture/Mercy charism with examples.	Clear reflection, some links to faith elements.	Basic summary, weak connections.	Surface-level or unrelated.	40%
	Critical Analysis	Critiques AI limits/risks through "wisdom of the heart," proposes solutions.	Analyzes adequately, basic proposals.	Limited analysis.	No analysis.	30%
	Clarity & Faith Integration	Well-written, integrates quotes from Pope Francis/Vatican docs fluidly.	Clear, some integration.	Unclear or forced.	Poorly written, no integration.	30%
Debate Performance (e.g., Unit 2 group debates)	Argument Strength	Compelling use of Rome Call principles, rebuttals grounded in CST.	Solid arguments, some rebuttals.	Weak or unsupported arguments.	Irrelevant or absent.	40%
	Collaboration & Ethics	Fosters team mercy (e.g., fair play), ethical framing of AI issues.	Good collaboration, basic ethics.	Limited teamwork.	Poor collaboration.	30%
	Delivery & Faith Tie	Confident, ties to human dignity/imago Dei.	Adequate delivery, some ties.	Hesitant, weak ties.	Ineffective, no ties.	30%

Capstone Project (e.g., Unit 4 "Mercy AI Charter")	Content & Innovation	Comprehensive charter, innovative AI policies aligned with Vatican guidelines.	Solid content, practical policies.	Basic outline, limited innovation.	Incomplete or misaligned.	40%
	Faith & Ethical Depth	Deep integration of teachings (e.g., <i>Fratelli Tutti</i>), addresses risks like bias.	Adequate depth.	Superficial.	None.	30%
	Presentation & Applicability	Clear, feasible for Mount Mercy implementation.	Mostly clear.	Unclear.	Disorganized.	30%

Implementation Notes: Use these as Google Forms or Blackboard rubrics for easy grading. Include self-assessment components to encourage discernment. For holistic grading, add a "Mercy Bonus" (extra 5%) for entries showing compassionate application (e.g., linking AI to service for the marginalized).

2. Sample Slides Templates

Slides should be simple, visually engaging, and faith-centered (e.g., incorporate Mercy cross imagery or subtle biblical motifs). Aim for 10-15 slides per session, using tools like PowerPoint, Google Slides, or Canva. Below is an outline for a template structure per unit/session—customize with university branding (blue/gold colors, MMU logo).

General Template Guidelines:

- **Theme:** Clean, sans-serif fonts (e.g., Arial); background: Light gray with Mercy icons.
- **Slide 1: Title Slide** – Session title (e.g., "Unit 1: Foundations of Human Intelligence in Faith"), date, instructor name, learning objectives.
- **Slide 2: Prayer/Opening Reflection** – Include a short scripture quote (e.g., Genesis 1:27) and prompt for silent prayer.
- **Slides 3-6: Core Content** – Bullet points with key concepts, quotes (e.g., Pope Francis), and visuals (e.g., infographic comparing human vs. AI intelligence).
- **Slides 7-9: Activity Instructions** – Step-by-step for demos/debates, with embedded hyperlinks to tools (e.g., ChatGPT prompt examples).
- **Slide 10: Discussion Prompts** – Open-ended questions tying to Mercy values.
- **Slide 11: Key Takeaways** – 3-5 bullet points summarizing faith-AI links.
- **Slide 12: Homework/Preview** – Assignments and next session teaser.
- **Final Slide: Closing Prayer** – Quote from "Antiqua et Nova" and invitation for questions.

Example for Unit 1 Session:

- Slide 3: "Human Intelligence as Divine Gift" – Bullet: Rational, relational (image: Family praying); Quote: St. Thomas Aquinas.
- Slide 4: "AI Limits" – Diagram: Flowchart showing AI as tool, not creator.
- Slide 7: "Activity: AI Demo" – Instructions: "Prompt ChatGPT with a moral dilemma; analyze lacks."
- Embed polls (via Mentimeter) for engagement.

Resources: Free templates on Canva (search "Ethics Workshop"); add accessibility (alt text for images, high contrast).

3. Adaptations for Specific Courses

These adaptations embed the module (or select units) into existing RS courses, preserving their core while adding AI relevance. Each assumes 1-2 sessions (75-90 min) per adaptation, with the full module as an optional add-on.

- **RS 110: Christian Moral Life** – Adapt Units 2-3: Focus on AI in moral dilemmas (e.g., AI hiring bias vs. just war theory). Replace general cases with healthcare ethics (linking to Mount Mercy's nursing programs). Activity: Debate AI in end-of-life decisions, using rubric for ethical depth. Outcome: Students apply CST to AI policies in personal vocations.
- **RS 111: Introduction to the Bible: Old Testament** – Adapt Units 1 & 3: Use AI for textual analysis (e.g., sentiment mapping of prophets) but emphasize risks like misinterpretation (idolatry parallel). Add activity: AI-generated timelines of Genesis events, followed by reflection on "subduing the earth" (Gen. 2:15). Rubric emphasis: Faith integration in journals.
- **RS 113: Introduction to the Bible: New Testament** – Adapt Units 3-4: Explore AI for evangelization (e.g., chatbots sharing parables) vs. risks to truth (deepfakes eroding Gospel fidelity). Capstone: Draft a "Digital Mercy Charter" for online faith sharing. Slides: Include AI art of the Good Samaritan for discussion.
- **RS 284: Topics in Religious Studies** (e.g., "AI and Contemporary Theology") – Full module integration: Dedicate 3-4 weeks. Adapt for guest speakers (e.g., from Vatican AI experts via Zoom). Assessments: Extend capstone to a group presentation on interfaith AI ethics. Rubric: Add innovation for topical relevance.
- **General Electives (e.g., RS 115: World Religions)** – Adapt Unit 4: Comparative AI governance (e.g., Catholic vs. Buddhist views on technology). Activity: Analyze AI in global mercy works (e.g., refugee aid apps).

Notes: For shorter courses, use as flipped content (pre-read Vatican docs online). Ensure adaptations align with course outcomes via syllabus mapping.

4. Integration with the Business Curriculum

This faith ethics module complements the "Utilizing AI Across Business Disciplines" course by bridging spiritual discernment with practical AI applications, creating a holistic education unique to Mount Mercy's Catholic identity. It positions AI as ethically grounded, reducing risks like bias in business tools while fostering "merciful leadership."

- **Structural Links:** Make the faith module a prerequisite or co-requisite for the business course's AI Ethics in Business unit. For example, business students (e.g., MBA or Management majors) complete Units 1-2 before discipline-specific modules (e.g., AI in HR: Address bias through "wisdom of the heart").
- **Cross-Module Ties:**

- In business Accounting/Finance: Adapt Unit 3 risks (e.g., AI fraud detection) with faith cases (e.g., ethical auditing per CST solidarity).
- In Marketing/HR: Use Unit 2 debates for AI consumer privacy, tying to Vatican bans on manipulation.
- Capstone Integration: Business students revise their AI business plans to include a "Faith-Ethics Audit" section, using the Mercy AI Charter template.

- **Implementation Strategies:**

- **Hybrid Offerings:** Offer as a 1-credit add-on for graduate programs (e.g., MBA with faith emphasis).
- **Interdisciplinary Teams:** Co-teach with RS and Business faculty; invite business leaders for panels on "Faithful AI in Iowa Industries" (e.g., agriculture AI with stewardship focus).
- **Assessment Overlap:** Use shared rubrics (e.g., ethical depth criterion) for joint projects, like analyzing AI in supply chains through mercy/justice lenses.
- **Expansion Opportunities:** Link to UIowa/ISU AI certificates by adding faith components, creating a "Mercy AI Pathway" certificate.

This integration enhances employability (e.g., ethical AI skills for roles at Principal Financial in Iowa) while upholding Mount Mercy's mission.

Syllabus Sample

Sample Syllabus Template: "Utilizing AI Across Business Disciplines with Ethical Foundations"

Below is a customizable sample syllabus template for a graduate-level course at Mount Mercy University (or adaptable for St. Ambrose University). This integrates the business disciplines we discussed, the mandatory AI Ethics in Business module, and the expanded AI Ethics in Faith Contexts module to align with Mount Mercy's Catholic heritage and Sisters of Mercy values (e.g., compassion, justice, hospitality). The course is designed as a 3-credit, 14-week hybrid format (e.g., weekly 2-hour in-person sessions plus online modules), suitable for MBA, Strategic Leadership, or a new AI-focused certificate program.

The template emphasizes practical AI applications, ethical discernment, and faith integration, drawing from Vatican guidelines (e.g., "Antiqua et Nova" and Rome Call for AI Ethics). It includes experiential learning, guest speakers, and ties to regional Iowa industries (e.g., agriculture, manufacturing). Faculty can adapt it for specific offerings, such as piloting in an existing Management course.

Course Syllabus

Course Information

- **Course Title:** Utilizing AI Across Business Disciplines with Ethical Foundations
- **Course Number:** BUS 6XX (Graduate Level)
- **Credits:** 3
- **Semester/Year:** Spring 2027
- **Instructor:** [Your Name], AI Strategist and Enterprise Architect (or RS/Business Faculty)
- **Contact Information:** Email: [email@mountmercy.edu (mailto:email@mountmercy.edu)]; Office Hours: Tuesdays 2-4 PM (virtual/in-person)
- **Meeting Time/Location:** Wednesdays 6-8 PM, Hybrid (Zoom link provided; in-person in Basile Hall Room 101)
- **Prerequisites:** Graduate standing or permission; basic computer literacy (no coding required, but familiarity with tools like Microsoft Office helpful)
- **Required Texts/Materials:**
 - "Artificial Intelligence: A Guide for Thinking Humans" by Melanie Mitchell (for AI basics).
 - Vatican documents: "Antiqua et Nova" (free PDF) and "Rome Call for AI Ethics" (free online).
 - Access to free AI tools: ChatGPT, Google Bard, Microsoft Copilot.
 - Optional: "AI and the Future of Work" by Darrell M. West.
- **Course Platform:** Brightspace (for assignments, discussions, readings).

Course Description

This course explores AI's transformative role in business disciplines, emphasizing ethical integration and faith-based discernment. Students will learn to apply AI tools responsibly across areas like finance, marketing, and management, while addressing ethical risks through Catholic social teaching (CST) and Mercy values. The curriculum bridges technical skills with spiritual reflection, preparing leaders for AI-driven economies in Iowa's context (e.g., agribusiness, healthcare).

Learning Outcomes

By the end of the course, students will be able to:

1. Apply AI tools to enhance decision-making in key business disciplines.
2. Evaluate AI's ethical implications using secular and faith-based frameworks (e.g., bias mitigation, human dignity).
3. Develop strategies for AI adoption in organizations, aligned with justice and compassion.
4. Critically reflect on AI's societal impacts through a Mercy lens.
5. Create AI-integrated business projects with ethical safeguards.

Course Policies

- **Attendance/Participation:** 80% attendance required; active engagement in discussions (10% of grade). Hybrid flexibility for working professionals.
- **Late Work:** 10% deduction per day; extensions for extenuating circumstances.
- **Academic Integrity:** Plagiarism (including AI-generated content without citation) results in failure. Use AI tools ethically, as per course guidelines.
- **Accommodations:** Contact Accessibility Services for ADA needs.
- **Faith Integration:** Discussions respect diverse beliefs but center Catholic perspectives; optional ties to campus ministry.
- **Technology Requirements:** Reliable internet; laptop for in-class AI demos.

Grading Scale

- A: 93-100%
- A-: 90-92%
- B+: 87-89%
- B: 83-86%
- B-: 80-82%
- C+: 77-79%
- C: 73-76%
- Below 73%: Failing (graduate standards)

Assessments and Grading Breakdown

Assessment	Description	Weight	Due Date
Participation & Reflections	Weekly discussions (in-person/online) and faith-integrated journals (e.g., 1-page on AI ethics). Use rubric for depth/engagement.	20%	Ongoing
Module Quizzes	Short online quizzes on AI applications and ethics (e.g., multiple-choice on Vatican principles).	15%	Weeks 3, 7, 11
Group Projects	Discipline-specific AI simulations (e.g., AI marketing campaign). Include ethical audit.	25%	Week 8 (midterm)
Capstone Project	Individual or team: AI business plan with faith-ethics charter (e.g., "Mercy AI Initiative" for a local firm). Presentation included.	30%	Week 14
Final Exam	Comprehensive: Case studies applying AI across disciplines with ethical analysis.	10%	Week 15

Note: All assessments incorporate rubrics (e.g., from previous details: ethical depth, faith ties).

Course Schedule

The schedule is modular for flexibility. Weeks 1-2 focus on ethics as foundational; subsequent weeks cover business disciplines with embedded ethical checkpoints. Adjust for holidays (e.g., Easter).

Week	Topic/Module	Readings/Activities	Assignments Due
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1	Introduction to AI & Ethics in Faith Contexts (Unit 1-2)	Vatican "Antiqua et Nova" excerpts; AI demo (e.g., ChatGPT limits). Discussion: Human intelligence vs. AI.	Journal: Personal AI reflection.
2	AI Ethics in Business & Faith Risks/Potentials (Unit 3-4)	Rome Call document; Case: AI bias in hiring. Guest: Campus ministry on mercy in tech.	Quiz 1; Draft "Mercy AI Charter."
3	Accounting & Finance with AI	Mitchell Ch. 5; Hands-on: AI fraud detection (IBM Watson). Ethical tie: Transparency in financial AI.	Group sim: AI trading bot.
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9	Expansion Disciplines: Entrepreneurship & Operations	Tools: IdeaBuddy for startups; Siemens sim for ops. Reflection: AI innovation with stewardship.	Journal.
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12	AI in Faith-Based Contexts (Review & Applications)	Tie business to RS courses (e.g., AI in Bible study). Guest: Ulowa/ISU AI expert.	Capstone draft.
13	Emerging Trends & Regional Applications	Iowa focus: AI in ag/manufacturing. Debate: Future of work per Pope Francis.	Final reflections.

14	Capstone Presentations & Course Wrap-Up	Present AI plans; Feedback. Closing prayer/reflection on mercy in AI.	Capstone due.
15	Final Exam Week	Online exam; Optional portfolio submission.	Final Exam.

Notes:

- **Guest Speakers:** Weeks 2, 7, 12 (e.g., from Principal Financial or Sisters of Mercy).
- **Service Component:** Optional extra credit: Apply AI to mercy project (e.g., data analysis for local nonprofit).
- **Adaptations:** For shorter terms, condense to 10 weeks by combining expansion modules. For RS integration, add biblical case studies (e.g., AI timelines in Old Testament).

Additional Resources

- **University Support:** Library AI guides; IT help for tools.
- **Inspiration from Nearby Programs:** Benchmark against University of Iowa's Graduate Certificate in AI/ML and Iowa State's MS in AI (e.g., ethics courses like AI 2020).
- **Policy on AI Use in Course:** Students may use AI for brainstorming but must cite (e.g., "Generated with ChatGPT") and critically evaluate outputs.

This syllabus promotes a balanced, faith-grounded approach to AI education.

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Final Exam

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10%

Week 15

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