NAU AI & Ethics Course Analysis

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Data Collection

I scraped course data from the NAU catalog using `scrape.py`, which iterates across course prefixes and terms, then writes results to `outputs/nau_courses.csv`. Any prefixes that returned zero results were logged to `outputs/nau_empty_prefixes.csv`.

Total unique courses (by prefix + number):

metric	value
total_unique_courses	6145

Sample of raw course rows (first 5):

prefix	number	title
ACC	199	Special Topics
ACC	255	Financial Accounting For Business
ACC	256	Managerial Accounting For Business
ACC	300	Accounting Systems
ACC	302	Cost Accounting

Missing prefixes:

prefix
ADM
BASW
CINE
EET
EIT
EMF
ENVY
IBH
SBA
SOCIO
SST
TRAN

Initial AI Analysis (High-Confidence Core)

I ran a **narrow, high-precision** AI search using `ai_analysis.py`. This produces the core AI list (`nau_courses_ai_subset.csv`) and a full dataset with AI + ethics flags (`nau_courses_with_flag.csv`). The core list is treated as a benchmark for high-confidence AI-related courses.

prefix	number	title
CIT	460	Emerging Technologies In Information Technology
CS	102	Artificial Intelligence Literacy
CS	413	Virtual Worlds
CS	413H	Virtual Worlds - Honors
CS	470	Artificial Intelligence
CS	470H	Artificial Intelligence - Honors
CS	472	Unsupervised Machine Learning
CS	570	Advanced Intelligent Systems
CS	572	Unsupervised Machine Learning
CS	573	Interpretable Machine Learning
EE	443	Foundations Of Intelligent Systems
EE	543	Pattern Recognition
ETC	767	Research In Learning Analytics & Artificial Intelligence
INF	504	Data Mining And Machine Learning
INF	586	Data Analytics Capstone
PRM	165	Ai And The Future Of Fun
PSY	305	Data Science And Ai In Psychology
PSY	305H	Data Science And Ai In Psychology - Honors
PSY	628	Research Dissemination Skills In The Psychological Sciences

Total AI related courses: 19

Expanded AI Analysis (Recall-First)

To avoid missing relevant courses, I ran a broader search with `ai_analysis_broad.py`. This produces:

- `nau_courses_ai_candidates.csv` (all broad candidates)

metric	value
Broad AI candidates	83

I manually reviewed the broad candidate list and found that most entries were keyword-only matches or AI-adjacent topics (e.g., general IT, project management, or non-AI technical content). I did **not** add any new courses beyond the core list.

AI-Adjacent Highlights

I also highlight a few **AI-adjacent** courses that use related methods (e.g., robotics or image processing) even if they are not explicitly labeled as AI in the catalog.

prefix	number	title
ART	376	New Media: Physical Computing And Robotics
EE	442	Image Processing
EE	542	Image Processing
ME	542	Applied Robotics Controls

Ethics Analysis

Ethics courses were identified with `ethics_analysis.py`, using a conservative rule set to avoid casual mentions of ethics in unrelated contexts.

prefix	number	title
ACC	205	Introduction To Business Law
ACC	205H	Introduction To Business Law - Honors
ACC	340	Accounting Ethics
ACC	340H	Accounting Ethics - Honors
ACC	365	Risk Management And Compliance
ACC	405	Advanced Business Law
ACC	580	Advanced Auditing
ANT	467	Storytelling Matters: Publishing Knowledge In Multiple Forms
ANT	520	Ethics In Anthropological Research
ANT	521	Research Ethics, Community Research, And Vulnerable Populations
ANT	522	Research Ethics In Cross-cultural And International Contexts
ANT	567	Storytelling Matters: Publishing Knowledge In Multiple Forms
ANT	607	Pre-internship Seminar
AT	510	Ethics In Athletic Training Practice
AT	555	Evidence Based Practice In Athletic Training II
AT	620	Administration In Athletic Training Practice
BA	609	Business Law, Ethics And Corporate Governance
BA	657	Strategic Marketing Management

Total ethics courses: 111

AI + Ethics Overlap

Courses flagged as **both** AI-related and ethics-related:

prefix	number	title
PRM	165	Ai And The Future Of Fun

Conclusion

This workflow provides:

- A **high-confidence AI core list** for reporting.
- A **recall-first candidate list** to ensure I do not miss relevant AI courses.
- A **dedicated ethics list** for ethics coverage.

Known limitation: Special topics numbers (for example, `499`) are often generic in the catalog and do not list the full set of rotating topics offered each semester. This likely applies to many `599` and `699` level special topics courses as well. The catalog itself only exposes one generic entry for these, so the analysis cannot capture the full set of rotating topics by prefix.

Another limitation is that the prefix list is based on the NAU `data/Course-Numbering-and-Prefixes.pdf`. If NAU adds or removes prefixes and the PDF is out of date, those changes will not appear in the scrape.