

Lerner College of Business & Economics
Graduate Certificate in Generative AI for Business
Policy Statement
December 4, 2023

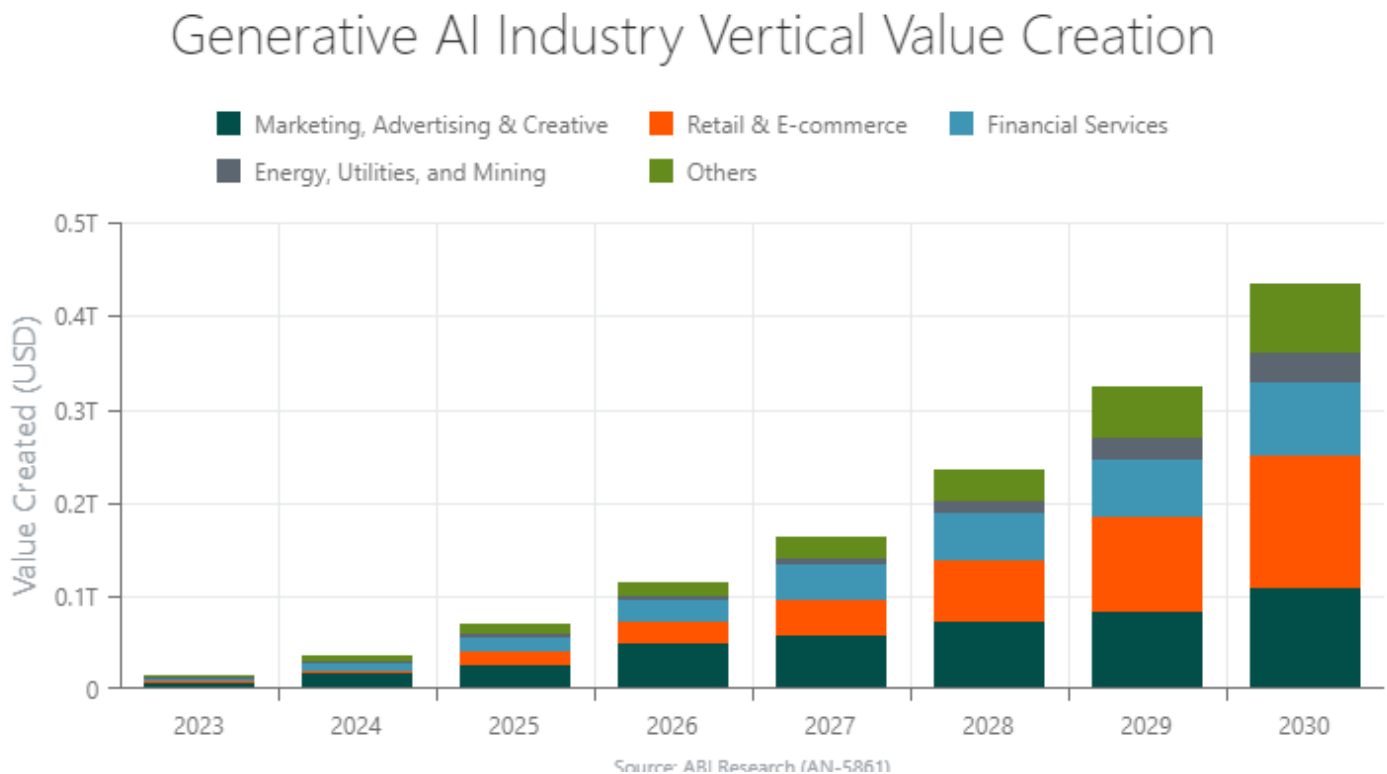
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PART I. PROGRAM HISTORY AND PURPOSE

A. Statement of purpose and expectation of graduate study in the program.

Generative AI, a subset of AI, as a result of advances in large language algorithms with tools like ChatGPT, is making a significant shift to how businesses operate. Generative AI allows for models and algorithms to produce outputs such as videos, images, text, code, 3D content, and more. A recent (April 2023) [Harvard Business Review](#) agrees in- generative AI will change how businesses operate, and organizations will have to learn and adapt. Specifically, [ABIresearch](#) (2023) shows projected value creation as a result of generative AI in a variety of industries including marketing, retail, financial services, utilities, and more.



The Lerner College Graduate Certificate in Generative AI for Business is designed for individuals who want to better understand how to leverage the benefits of generative AI in business. Given the expanding role of data science in today's environment, this certificate targets individuals who may not have strong programming skills, but given the right tools, can leverage advanced technologies and truly realize the benefits of artificial intelligence.

In this 9-credit certificate (3, 3-credit courses), students will learn how to (1) use LLMs (Large Language Models) via prompt engineering to solve business problems, (2) develop LLM apps using low-code tools and systems, (3) generate images and videos using diffusion models and (4) solve business analytics problems using LLMs.

This Lerner certificate should appeal to:

- Managers and executives involved in managing teams and AI-driven projects
- Mid-career professionals hoping to advance their careers through the learning of new technologies
- Data analysts in any domain where generative AI might be useful

- Graduate students in other business programs (MBA, Business Analytics and Information Management, Computer Science) and other graduate programs where generative AI could be a useful tool

B. Date of permanent status (or current status)

The proposed Certificate in Generative AI for Business would be new to the Lerner College of Business & Economics.

C. Degrees offered (include brief description of concentrations, fields, etc.)

Graduate Certificate in Generative AI for Business consists of 9 credits of graduate coursework. The certificate is available to online and on-campus students. The courses will be offered on campus, and could be offered in-person or online.

D. Term when first students may enroll

Students can enroll into the certificate program in Summer 2024.

E. Factors that identify the student demand for the program

In 2023, analyst Michael Wolf, co-founder and CEO of consulting firm Activate, in an October 2023 *Wall Street Journal* [article](#) predicted that consumers are going to gravitate toward applications powered by Generative AI. His company found that about 13 million U.S. adults today begin their web searches using generative AI, and the prediction is that this will grow to more than 90 million by 2027. [New generative AI from Amazon](#) allows advertisers to create more engaging ads, where advertisers can use the Amazon Ad Console, select their product and click “Generate.”

A recent [McKinsey Global Survey](#) notes the explosive growth of Generative AI tools. In their survey, 1/3 of respondents say their organizations are using generative AI regularly in at least one business functions, and nearly ¼ of survey C-suite executives say they are personally using generative AI for work. McKinsey suggests that while the use of generative AI is already widespread and many companies are staying ahead, these tools are still in their early days. Roles in prompt engineering are becoming more popular as the need for that skill set is positively related to the adoption of generative AI.

Courses on Generative AI for Business are becoming more popular at leading business schools such as [Columbia Business School](#), [George Washington University](#),

Other Universities offer similar programs including:

- Georgia State University’s Robinson College of Business ([Artificial Intelligence Business Innovation Graduate Certificate](#))
- Villanova University School of Business ([MBA Specialization in Applied Artificial Intelligence and Machine Learning](#))
- George Washington University School of Business ([Graduate Certificate](#))
- Berkeley Haas ([Artificial Intelligence: Business Strategies and Applications](#))

The Lerner College of Business & Economics proposes this new certificate program to help students excel in the ever-changing world of generative AI. This program is expected to see demand from current and prospective University of Delaware students as well as others in for and non-profit roles, and in financial and government sectors. Students pursuing other graduate programs at the University of Delaware can enroll in the certificate courses as to supplement their education.

F. Identify the College and Department/School in which the program will reside

As this is a multi-disciplinary program, the program will reside in the Lerner College of Business & Economics.

PART II. ADMISSION

A. Admission Requirements

The general requirements for applicants are as follows:

1. A transcript showing awarding of a bachelor's degree from a four-year accredited U.S. college or university. Current undergraduate students need to show intent to complete undergraduate degree prior to enrolling in graduate level coursework, and all undergraduate coursework must be completed before starting the first graduate course.
2. One letter of recommendation attesting to the candidate's ability to succeed in a business graduate certificate program. Letter of recommendation requirement is waived for a student in any other University of Delaware graduate program, or who is enrolled or has successfully completed a graduate degree at another University;
3. Current resume; and
4. Personal statement of how a business generative AI certificate can assist the candidate in professional practice or voluntary endeavors. Additionally, candidates should answer the following prompt: "What are the specific attributes of this certificate program at UD that lead you to believe that this program is appropriate to help you achieve your professional objectives?"
5. Proficiency in Python or similar programming language is not required but is preferred.
6. Application fee: a \$75 application due when you submit your online application.

An interview may be required. Relevant work experience may also be taken into consideration.

Students admitted or pursuing a different graduate program at the University of Delaware would only need to submit a current resume and a personal statement. Current students do not pay an application fee if they use the [grad-certificate enrollment form](#).

B. Prior degree requirements

The Lerner College Graduate Certificates are available to applicants possessing an earned Bachelor's degree from an accredited college or university. The candidates for admission need not have majored in any specific undergraduate field; however, students interested in pursuing the Lerner College Generative AI for Business Certificate are assumed to possess basic skills in written and oral communication and basic Excel skills. Python or a programming language, while not required, is beneficial. Students without basic Excel skills or programming skills will be provided recommended tutorials to review prior to starting the graduate certificate program.

C. Application deadlines

Admissions decisions are made on a rolling basis throughout the year. Students may start in any of the five 7-week semesters depending on when the courses are offered.

D. Special competencies needed (i.e., specific courses or experience)

Only what is listed above in B. Prior degree requirements: Must have completed an undergraduate degree.

E. Admission categories (explain other than regular such as provisional)

N/A

F. Other documents required (i.e., letters of recommendation, essays, portfolios, interviews, writing assessments, etc.)

All requirements outlined in Part I, Section A.

Admission to the graduate program is competitive. Those who meet stated requirements are not guaranteed admission, nor are those who fail to meet all of those requirements necessarily precluded from admission if they offer other appropriate strengths.

PART III. ACADEMIC

A. Degree Requirements

- 1. List course requirements according to categories such as core requirements, concentration options, electives, research credits and dissertation credit requirements. List number of credits in each category and include total credits required for degree.**

The Certificate in Generative AI in Business is 9 credits. All courses are 3 credits. To be awarded a certificate, the student's overall GPA must be a 3.0. The required courses are:

MISY670: Introduction to Generative AI (3 credits)

BUAD651: Generative AI for Business Analytics (3 credits)

ECON626: Generative AI for Data Visualization (3 credits)

Other graduate business courses may be approved by the Graduate Program Director as applicable to ensure the Generative AI for Business certificate allows students to achieve their career goals.

- 2. Give non-registered requirements in detail; includes residency requirements, qualifying examinations (number and format), portfolios, seminars, English proficiency, language requirements, teaching experience, internships, etc.**

N/A

- 3. Give procedure for petitions for variance in degree requirements (e.g., course substitution policies, completion deadlines, etc.).**

Course substitutions may be possible with prior permission from the Program Director.

- 4. Define any grade minimums in courses that are different from University policy.**

None

- 5. Identify any courses, which may not be used towards the degree (i.e., independent study, pre-candidacy study).**

N/A

6. Identify expectations of facility of expression in English (oral and written) as part of the degree requirement.

Students are expected to have good oral and written communication skills as demonstrated by prior academic accomplishments or work experience.

B. Committees for exams, thesis, or dissertations

N/A

C. Timetable and definition of satisfactory progress towards the degree

1. Academic load (full & part-time) expectations. Define normal progress. Define departmental review procedures for evaluating normal progress and evaluation of performance.

Certificates can normally be completed within 3 (7-week) semesters, but students may take up to one year to complete with the option to appeal for an extension. Students should contact the Program Director in writing to request the extension. The Program Director will monitor all certificate students. To be awarded the certificate, complete the [Completion Application Form for Graduate Certificate](#) by the end of the free/ drop add deadline at the beginning of the semester in which the student is registered for the last course needed to complete the certificate.

2. Grade requirements (general and specific). Include any special departmental expectations such as minimum grades in specific courses, limits on special problem courses, etc.

Overall GPA must be a 3.0 to earn a certificate.

3. Thesis/dissertation progress timetable guidelines.

N/A

4. Thesis/dissertation defense guidelines.

N/A

5. Forms required.

Standard AAD form provided by the graduate office.

6. Identify consequence for failure to make satisfactory progress.

The graduate certificate academic advisor will give the student written notification if they are not making satisfactory academic progress at the standard expected (cumulative GPA of 3.0). The written notice will include specific areas of improvement that will be required. The student will be given one semester or one additional course during which to demonstrate adequate improvement. Students should meet with their primary academic adviser as soon as possible after receiving such notification, so that the problem and the possible means of addressing the problem can be discussed. If the student fails to make adequate improvement, a recommendation to dismiss the student from the program will be by vote of the faculty who teach in the Generative AI for Business Certificate program and will be conveyed to the Graduate Office for action (see Graduate Student Probation and Dismissal Policy in the University Catalogue). Recommendations for dismissal are made by the Director of the Certificate Program to the University of Delaware Graduate College.

7. Protocol for grievance procedure if student has been recommended for termination for failure to make satisfactory progress.

The Generative AI Certificate for Business will use the standard grievance procedure provided by the graduate office.

PART IV. ASSESSMENT PLAN

Evaluation Plan

The overall effectiveness and success of the certificate program will be evaluated using the following measures:

- Student course evaluations based on University and College templates;
- Comparison of student career data pre- and post-program;

Assessment Plan

At the conclusion of the coursework,

- Program Director and Dept. of Acct and MIS will examine a student's success in courses selected including their competency in achieving program educational goals via course assignments and assessments
- Students will complete a self-assessment survey to measure the extent to which they believe the knowledge and skill-sets developed will better prepare them for success in their career and future graduate education.

PART V. PROGRAM EDUCATIONAL GOALS

Program Education Goals for the Generative AI Certificate are as follows:

- Demonstrate knowledge of the fundamentals of generative models, including how they work, different architectures, and their applications;
- Develop skills in collecting, cleaning and preprocessing diverse datasets to train generative AI models effectively;
- Develop the ability to communicate effectively about generative AI concepts, methodologies, and results to both technical and non-technical stakeholders;
- Evaluate various generative AI models to understand the criteria for selecting the most suitable model for a given business problem;
- Demonstrate critical thinking skills to analyze, troubleshoot, and solve challenges encountered during the development and deployment of generative AI models.

PART VI. FINANCIAL AID

Financial Awards

This is a tuition generating graduate program and tuition remission and/or stipends are not offered. Graduate students in this program would be eligible to apply for financial aid as applicable.

PART VII. DEPARTMENTAL OPERATIONS

A. General student responsibilities

1. Up-to-date addresses, etc.

Students are required to communicate via university email and keep us up-to-date regarding their telephone and US mail address.

2. Laboratories and research equipment

N/A

3. Hazardous Chemical Information Act.

N/A

4. Vehicles.

N/A

5. Keys, offices, mail, telephone, copy machine, computer terminals, etc.

N/A

B. Student government and organizations (both student and professional)

N/A

C. Travel for professional meetings or presentations

N/A