WILMINGTON UNIVERSITY
COLLEGE OF TECHNOLOGY OUTCOMES ASSESSMENT PLAN
2023 - 2024

INTRODUCTION

The Wilmington University Academic Affairs Assessment Plan (AAOAP) identifies the mission of Wilmington University as "rooted firmly in building exemplary and innovative academic programs within the context of a student-centered environment." Outlined in this document is the College of Technology's (COT) plan for assessing learning outcomes across each of its undergraduate and graduate programs. By design, it is consistent with the Academic Affairs Assessment Plan and Wilmington University Mission, and includes data planning, collection, analysis, and reporting cycles.

In 2019, COT began the transition to Canvas automated outcomes data collection. To best leverage the technology, Program Chairs reviewed and identified areas for improvement and further standardization, then revised and expanded program collection plans, maps, and assessments to strengthen alignment with program and graduation competencies.

KEY FACTORS IN THE COT OUTCOMES ASSESSMENT PLAN

- Provides steps to preserve and improve teaching effectiveness, student learning, and promotion of educational values.
- Provides for consistency with the Academic Affairs Assessment strategy.
- Data collection, recording, and analysis are formalized to provide guidance for continuous improvement as well as maintenance.
- A "four-pronged approach to assessment" as outlined in the AAOAP plan is utilized for assessment. The four prongs are: *Assessment of Teaching Effectiveness*; *Assessment of Student*

Learning Outcomes; *Assessment of Student Satisfaction*; and *Promotion of Educational Values*. The first three assessment prongs include benchmarks and assessment tools; the fourth prong, *Promoting Educational Values*, "while not directly measured, are values the faculty wishes to develop among students" (AAOAP, 2021).

1. **Assessment of Student Learning**

   Data are collected relative to student learning at the course level, which in turn are linked to program competencies at the College level. These are also linked to graduation competencies at the Institutional level. As cited in the AAOAP, the assessment methodology used will include formative and summative data as well as course-embedded criterion referenced assessment measures (CECRAM). Further explanations are outlined in the AAOAP.

2. **Assessment of Teaching Effectiveness**

   A second prong involved in "Outcomes Assessment" concerns the measure of Teaching Effectiveness. Assessment will include analysis of COT Course and Teaching Surveys (CATS) as well as GPA reports.

3. **Assessment of Student Satisfaction with the Academic Experience**

   A third prong involved in "Outcomes Assessment," i.e., satisfaction surrounding a student's academic experience within the College and the Institution, is a parameter of the College of Technology Assessment Plan. Assessment will include result analysis of the *Graduating Student Satisfaction* and *Alumni* surveys as well as enrollment data, retention/completion rates, and specific CATS survey questions.

4. **Promotion of Educational Values**

   The Academic Affairs Plan further identifies a set of educational values, developed by the

Faculty Senate. Academic Affairs will provide a status report regarding the Promotion of Educational Values on an annual basis.

LINKAGES BEYOND THE COLLEGE OF TECHNOLOGY: REPORTING RESULTS

In assessing outcomes, this plan addresses the four prongs using several measures including both direct and indirect measures. Data reviewed include but are not limited to:

- Course-embedded measures
- GPA reports
- Enrollment data
- Admissions and Application data
- Additional assessment methods currently being explored

PROCESS

Outcomes Assessment (OA) data is collected from all outcomes courses as identified in program OA maps. Canvas automated collection captures most of the OA data. In some circumstances, OA data, such as exam question results, may be reported by instructors to Program Chairs using data report templates. All data is collected at the end of each term.

Faculty who teach outcomes designated courses are appropriately trained and supported throughout the OA collection process.

Data reports will be exported and/or collected, and data summarizations provided to the Dean and Program Chairs by the Assistant to the Dean as needed.

For analysis of outcomes data, Program Chairs will Chair/Facilitate an "Outcomes Committee" meeting with select Faculty to review data, Advisory Committee recommendations and/or other direct and indirect measures to assess the need for change and "closing the loop."

Their findings/recommendations will be reported to the Dean. At least one annual meeting will be held. In addition, Chairs will also present significant OA findings and any resulting changes to their respective Program Advisory Committees.

The Dean will routinely review Institutional Reports, GPA reports and survey findings to assess the College-level of performance. The Dean will also review the data summary reports prepared by the Assistant to the Dean.

Outcomes assessment analysis and updates are regularly addressed at college meetings. Examples of "closing the loop," will also be presented as appropriate. Chairs will present the respective programmatic OA data at an annual COT Chairs' Outcomes Assessment Summit.

Annually, the Dean will present the data and findings including any examples of "closing the loop," for the college at an annual Academic Affairs Outcomes Summit. Each college presents their summary of the OA process for the year.

PROGRAM REVIEW

As outlined in the AAOAP, academic programs at Wilmington University normally undergo a review process every three years. Programs that are accredited or approved by an external agency may require a different timetable. Programs undergoing the University's Program Review process will include an Outcomes Assessment section reflecting how and where program and graduation competencies are being met, synopsis of data findings (patterns or trends) and "closing the loop" decisions/changes since the prior program review report. Further information on the Program Review Process is outlined in the Academic Affairs Policy Manual.

COMPETENCIES

Student learning outcomes at the University-wide level relate to the achievement of universally accepted Graduation Competencies. These criteria are periodically revisited and

reviewed by the University's Faculty Senate and endorsed by the Wilmington University administration. The College of Technology collects, records, and analyzes assessment data to College of Technology Program Competencies, which are directly mapped to University Graduation Competencies.

UNDERGRADUATE GRADUATION COMPETENCIES/EDUCATIONAL VALUES

In concurrence with the Academic Affairs Assessment Plan, College of Technology courses and curricula will strive to expose students to the following Educational Values:

- **Lifelong Learning:** Commitment to self-directedness, self-discipline, and lifelong learning
- **Multiculturalism:** Sensitivity to diversity and respect for a pluralistic society
- **Collaboration:** Awareness of self in relationship to others and the benefits of working in teams
- **Creativity**: Appreciation of creative expression including the arts and humanities
- **Citizenship:** Commitment to responsible citizenship as a contributing, civil member of society
- **Well Being:** Commitment to the holistic health of the individual
- **Civility:** Commitment to a civil, supportive, and collegial campus environment and beyond

Moreover, through those same curricula, it is intended that College of Technology students earning an undergraduate degree will demonstrate University-level proficiency in the following areas:

Oral Communication

- Appraise the needs of the audience and then speak in a clear and succinct manner.
- Research, construct, and deliver professional presentations using a variety of communication tools and techniques.

Written Communication

- Write with clarity and precision using correct English grammar: mechanics (punctuation) and usage (sentence structure and vocabulary).
- Exhibit competence in writing for specific purposes, diverse audiences, and genres.
- Correctly and ethically present scholarly writings utilizing the selected citation and writing style deemed appropriate for the student's program of study.

Disciplined Inquiry

- Employ critical thinking strategies such as quantitative, qualitative, and scientific reasoning to analyze consequences and outcomes and then determine logical solutions.

Information Literacy

- Using information in any format, research, evaluate, and ethically utilize information effectively and with appropriate attribution.

Ethics

- Demonstrate knowledge and application of prescribed ethical codes and behaviors related to the student's academic discipline.

COLLEGE OF TECHNOLOGY ACADEMIC PROGRAM COMPETENCIES

Students completing the **Applied Technology (A.S.)** program will be able to:

- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Write with clarity and precision using correct English grammar: mechanics (punctuation) and usage (sentence structure and vocabulary). Correctly and ethically present scholarly writings utilizing the selected citation and writing style deemed appropriate for the student's program of study. Exhibit competence in writing for specific purposes, diverse audiences, and genres.
- Effectively participate in groups to define and solve problems.
- Practice the use of library resources, including subscription services and other sources generally accepted as legitimate and valid.

- Describe and apply the ethical principles required of a technology professional.

Students completing the **Cybersecurity (A.S.)** program will be able to:

- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Write with clarity and precision using correct English grammar: mechanics and usage. Correctly and ethically exhibit competence in writing for specific purposes, diverse audiences, and genres.
- Recognize cybersecurity problems using required skills and knowledge.
- Evaluate and employ appropriate informational resources that are generally accepted as legitimate and valid.
- Describe ethical considerations required of computer professionals.

Students completing the **Data Analyst (A.S.)** program will be able to:

- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Write with clarity and precision using correct English grammar: mechanics and usage. Correctly and ethically exhibit competence in writing for specific purposes, diverse audiences, and genres.
- Recognize business and organization data analytical problems. Describe data analytical findings to technical and non-technical personnel.
- Evaluate appropriate informational resources that will validate data methods to respond to business challenges.
- Recognize data analytics ethical principles and privacy procedures to organizations' data.

Students completing the **Digital Media (A.S.)** program will be able to:

- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Write with clarity and precision using correct English grammar: mechanics and usage. Correctly and ethically present scholarly writings utilizing the selected citation and writing style deemed appropriate for the student's program of study. Exhibit competence in writing for specific purposes, diverse audiences, and genres.
- Employ critical thinking strategies such as quantitative, qualitative, and scientific reasoning to analyze consequences and outcomes and then determine logical solutions.
- Using information in any format to research, evaluate, and ethically utilize information effectively and with appropriate attribution.
- Apply the ethical principles required of computer or designer professionals.

Students completing the **Animation and 3D (B.S.)** program will be able to:

- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Write with clarity and precision using correct English grammar: mechanics and usage. Exhibit competence in writing for specific purposes, diverse audiences, and genres. Correctly and ethically present scholarly writings utilizing the selected citation and writing style deemed appropriate for the student's program of study.
- Employ scientific, quantitative and/or qualitative reasoning and other critical thinking strategies to analyze consequences and outcomes and to be able to recommend alternative solutions.
- Using information in any format to research, evaluate, and ethically utilize information effectively and with appropriate attribution.
- Demonstrate knowledge and application of prescribed ethical codes and behaviors promoted by the student's chosen academic profession.
- Develop the technical skills required for professional animation and 3D production - Utilize professional modeling techniques to a 3D Maya project; use professional 2D or 3D animation software to complete a project.
- Practice a professional animation workflow - Demonstrate all elements of animation in an organized manner; exercise a personalized animation workflow.
- Analyze past and current professional trends in animation and 3D - Evaluate current techniques being used to create animation; research the development of early animation.

Students completing the **Applied Technology (B.S.)** program will be able to:

- Research, construct and deliver professional presentations while appraising the needs of the audience.
- Write with clarity and precision using correct English grammar: mechanics and usage. Correctly and ethically exhibit competence in writing for specific purposes diverse audience, and genres.
- Demonstrate an understanding of how integrating technology increases effectiveness in the workplace, by employing critical thinking strategies to analyze outcomes and determine logical solutions.
- Research, evaluate, and ethically utilize information.
- Describe and apply the ethical principles required of a technology professional.
- Apply workplace technology tools to develop and present communications that are coherent, unified, and focused.
- Analyze applications of emerging technologies for problem solving in chosen technical area.

Students completing the **Communication Program (B.S.)** will be able to:

- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Write with clarity and precision using correct English grammar: mechanics and usage. Exhibit competence in writing for specific purposes, diverse audiences, and genres. Correctly and ethically present scholarly writings utilizing the selected citation and writing style deemed appropriate for the student's program of study.
- Employ critical thinking strategies such as quantitative, qualitative, and scientific reasoning to analyze consequences and outcomes and then determine logical solutions.
- Using information in any format, research, evaluate, and ethically utilize information effectively and with appropriate attribution.
- Demonstrate knowledge and application of prescribed ethical codes and behaviors related to the student's academic discipline.

Digital Journalism

- Apply current digital communication process in the 21st-century media marketplace.
- Demonstrate critical thinking through creative problem solving in digital journalism projects from inception to completion.
- Engage in ethical Digital Communication behavior.

Public Relations & Strategic Communication

- Integrate imagery, such as logos, ads, and design/visual elements of film, television, and the Internet that capture appropriate audience attention.
- Apply current industry standards for Public Relations and Strategic Communication utilizing the web, video, and imagery.
- Engage in ethical Public Relation and Strategic Communication behavior.

Visual Communication

- Design visual communication products that capture audience attention with branding, packaging, spatial design, publication design, and typeface design.
- Deliver professional communication products using appropriate communication tools and techniques.
- Create innovative design solutions that communicate to a given audience.
- Engage in ethical Visual Communication behavior.

Students completing the **Computer Science (B.S.)** program will be able to:

- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Write with clarity and precision using correct English grammar: mechanics and usage. Correctly and ethically exhibit competence in writing for specific purposes, diverse audiences, and genres.

- Demonstrate personal skills in innovation and problem solving. Employ critical thinking strategies such as quantitative, qualitative, and scientific reasoning to analyze consequences and outcomes and then determine logical solutions.
- Practice the use and employ the benefit of library resources, including subscription services and other sources generally accepted as legitimate and valid.
- Apply the ethical and legal principles required of computer science professionals.
- Apply Computer Science best practices and current methodologies to create, deliver, and support information technology projects and its importance in the world of technology.
- Analyze requirements for the process of creating programming from script to screen.
- Analyze requirements for computer hardware, network security, and software applications using best practices and current methodologies.

Students completing the **Cybersecurity (B.S.)** program will be able to:

- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques;
- Write with clarity and precision using correct English grammar: mechanics and usage. Correctly and ethically exhibit competence in writing for specific purposes, diverse audiences, and genres; and
- Analyze requirements for cybersecurity projects using best practices and current methodologies;
- Evaluate and employ appropriate informational resources that are generally accepted as legitimate and valid;
- Apply the ethical principles required of computer professionals;
- Solve cybersecurity problems using required skills and knowledge;
- Employ current and accepted processes to analyze, design, implement, test, and deliver cybersecurity projects;
- Apply generally current and accepted best practices in cybersecurity projects;
- Digital Forensics: Image, process and analyze digital evidence, and properly document findings.

Students completing the **Game Design and Development (B.S.)** program will be able to:

- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Write with clarity and precision using correct English grammar: mechanics (punctuation) and usage (sentence structure and vocabulary). Exhibit competence in writing for specific purposes, diverse audiences, and genres. Correctly and ethically present scholarly writings utilizing the selected citation and writing style deemed appropriate for the student's program of study.

- Employ scientific, quantitative and/or qualitative reasoning and other critical thinking strategies to analyze consequences and outcomes and to be able to recommend alternative solutions.
- Utilize the informational resources and other sources generally accepted as legitimate and valid.
- Apply the ethical principles required of computer professionals.
- Employ creative problem solving.
- Employ the appropriate technical knowledge necessary for Game Design and Development job functions:
    - Game Art Production students will employ the creative abilities and skills necessary to achieve the relevant theme, motifs, color schemes, and stylist choices to the project requirements of their job.
    - Interactive Programming students will employ the necessary design patterns based on best practices, employ efficient coding formatting and implementation, and effective code execution for developer functions.
- Analyze requirements for current trends, best practices, and current methodologies in game development projects.
- Practice a professional pipeline for game development.

Students completing the **Graphic Design (B.S**.) program will be able to:

- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Write with clarity and precision using correct English grammar: mechanics and usage. Correctly and ethically exhibit competence in writing for specific purposes, diverse audiences, and genres.
- Employ critical thinking strategies such as quantitative, qualitative, and scientific reasoning to analyze consequences and outcomes and then determine logical solutions.
- Employ legitimate and valid informational resources.
- Apply the ethical principles required of computer or designer professionals.
- Employ creative problem solving from project inception to completion.
- Develop a professional body of work and appropriate artifacts to provide evidence of personal vision and skills.
- Develop innovative design solutions to effectively communicate to a given audience.

Students completing the **Information Systems Management (B.S.)** program will be able to:

- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.

- Write with clarity and precision using correct English grammar: mechanics (punctuation) and usage (sentence structure and vocabulary). Exhibit competence in writing for specific purposes, diverse audiences, and genres. Correctly and ethically present scholarly writings utilizing the selected citation and writing style deemed appropriate for the student's program of study.
- Employ critical thinking strategies such as quantitative, qualitative, and scientific reasoning to analyze consequences and outcomes and then determine logical solutions.
- Using information in any format to research, evaluate, and ethically utilize information effectively and with appropriate attribution.
- Demonstrate knowledge and application of prescribed ethical codes and behaviors related to the student's academic discipline.
- Explain the role of IT in meeting strategic business objectives.
- Explain how IT can be used for competitive advantage in the external marketplace.
- Explain how IT can significantly improve internal business operations and decision making.
- Apply the systems approach to business problem solving.

Students completing the **Video and Film Production (B.S.)** program will be able to:

- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Write with clarity and precision using correct English grammar: mechanics (punctuation) and usage (sentence structure and vocabulary). Exhibit competence in writing for specific purposes, diverse audiences, and genres. Correctly and ethically present scholarly writings utilizing the selected citation and writing style deemed appropriate for the student's program of study.
- Employ scientific, quantitative and/or qualitative reasoning and other critical thinking strategies to analyze consequences and outcomes and to be able to recommend alternative solutions.
- Using information in any format to research, evaluate, and ethically utilize information effectively and with appropriate attribution.
- Demonstrate knowledge and application of prescribed ethical codes and behaviors promoted by the student's chosen academic profession.
- Professional Production - Develop the technical skills required for professional video production.

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  Professional Workflow - Practice a professional video workflow.

  Problem Solving - Employ creative problem solving.
- Film Analysis - Analyze past and current professional trends in video and film production.

Students completing the **Web Design (B.S.)** program will be able to:

- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Write with clarity and precision using correct English grammar: mechanics and usage. Correctly and ethically exhibit competence in writing for specific purposes, diverse audiences, and genres.
- Employ critical thinking strategies such as quantitative, qualitative, and scientific reasoning to analyze consequences and outcomes and then determine logical solutions.
- Employ legitimate and valid informational resources.
- Apply the ethical principles required of computer or designer professionals.
- Employ creative problem solving from project inception to completion.
- Develop a professional body of work and appropriate artifacts to provide evidence of personal vision and skills.
- Develop responsive web applications that display appropriately on various devices.

The graduate student who successfully completes the **Cybersecurity (M.S.)** program will be expected to:

Oral Communication

- Create and deliver a presentation that adheres to oral presentation best practices.
- Prepare and deliver a professional presentation related to Cybersecurity.
- Determine the appropriate verbal communication medium (phone call, meeting, presentation, etc.) for a given situation.
- Develop an effective verbal communication strategy for a given situation.

Written Communication

- Determine the appropriate written communication medium (email, text, report, etc.) for a given situation.
- Develop an effective written communication strategy for a given situation.
- Correctly use citations, quotations, and references to support written/typed material.
- Correctly format citations, quotations, and references in accordance with the APA Manual’s standards

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- Format written/typed material, including tables and figures, in accordance with the APA Manual's standards, including APA style and format.

Critical Thinking

Solve an IT/IS and/or Cybersecurity related problem / scenario.

Utilize quantitative, qualitative and /or scientific reasoning to solve problems.

- Use/Apply critical thinking strategies, including reasoning, problem solving, analysis and evaluation.
- Define a problem or issue and develop questions and methods to address the problem or issue and/or to create new knowledge.

Information Literacy

- Identify and analyze the applicability and reliability of research information.
- Use applicable and reliable research information as support for group and/or individual assignments.

Ethics

- Critique a scenario/case study involving a Cybersecurity ethical dilemma.

Cybersecurity Best Practices

- Apply a Cybersecurity best practice to a scenario.
- Compare and contrast a given set of Cybersecurity best practices.

Cybersecurity Plan

- Develop a Cybersecurity plan for a given situation/case study.
- Analyze / critique a Cybersecurity plan.

Cybersecurity Tools, Techniques, and Methodologies

- Compare and contrast a given set of Cybersecurity methodologies.
- Apply/utilize the appropriate Cybersecurity tool for a given situation/case study.
- Describe a given Cybersecurity technique.

The graduate student who successfully completes the **Digital Communication (M.S.)** program will have a level of applicable knowledge in the following areas as appropriate to one's field of study:

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- Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Write with clarity and precision in a variety of formats and styles appropriate for different audiences, purposes, and publication needs.
- Analyze the impact of communication within an interconnected and technology-driven society.
- Conduct research using methods appropriate to the communication field.
- Analyze legal, ethical, and leadership principles within the field of professional communication.

  Evaluate communication data using statistical concepts to inform the public.

  Apply tools appropriate for the communication field (graphics, audio, video, text, web, social media, etc.).

The graduate student who successfully completes the **Information Systems Technologies (M.S.)** program (MS-IST) will have a level of applicable knowledge in the following areas as appropriate to one's field of study:

MS-IST Information Assurance Concentration

- Oral Communication - Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Written Communication - Write with clarity and precision using correct English grammar: mechanics (punctuation) and usage (sentence structure and vocabulary). Exhibit competence in writing for specific purposes, diverse audiences, and genres. Correctly and ethically present scholarly writings utilizing the selected citation and writing style deemed appropriate for the student's program of study.
- Disciplined Inquiry - Employ scientific, quantitative and/or qualitative reasoning and other critical thinking strategies to analyze consequences and outcomes and to be able to recommend alternative solutions.
- Information Literacy - Using information in any format to research, evaluate, and ethically utilize information effectively and with appropriate attribution.
- Ethics - Demonstrate knowledge and application of prescribed ethical codes and behaviors prompted by the student's chosen profession.
- Integration Component - Evaluate the relationships and dependencies associated with planning, organizing, designing, managing, and implementing Information Systems in an organization.
- Business Application - Apply various models and methods for planning, organizing, designing, managing, and implementing Information Systems within a modern organization.

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- Information Assurance Principles - Apply the principles of Information Assurance used to manage risks related to one or more of the following: Use, Processing, Storage, and Transmission of information or data.
- Information Assurance Ethics and Practices - Assess the ethical practices associated with implementing IA policy, Standards and Regulation combined with systemic interrelationships within an organization.

MS-IST Management and Management Information Systems Concentration

- Oral Communication - Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Written Communication - Write with clarity and precision using correct English grammar: mechanics (punctuation) and usage (sentence structure and vocabulary). Exhibit competence in writing for specific purposes, diverse audiences, and genres. Correctly and

ethically present scholarly writings utilizing the selected citation and writing style deemed appropriate for the student's program of study.

- Disciplined Inquiry - Employ scientific, quantitative and/or qualitative reasoning and other critical thinking strategies to analyze consequences and outcomes and to be able to recommend alternative solutions.
- Information Literacy - Using information in any format to research, evaluate, and ethically utilize information effectively and with appropriate attribution.
- Ethics - Demonstrate knowledge and application of prescribed ethical codes and behaviors prompted by the student's chosen profession.
- Integration Component - Evaluate the relationships and dependencies associated with planning, organizing, designing, managing, and implementing Information Systems in an organization.
- Business Application - Apply various models and methods for planning, organizing, designing, managing, and implementing Information Systems within a modern organization.
- Systems Theory - Evaluate the appropriateness of using systems thinking when defining diagnosing and/or developing an IS/IT system.
- Software-driven Systems - Differentiate between effective and ineffective IT strategies and/or plans for updating integrating or implementing software-driven systems.

MS-IST Technology Project Management Concentration

- Oral Communication - Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Written Communication - Write with clarity and precision using correct English grammar: mechanics (punctuation) and usage (sentence structure and vocabulary). Exhibit competence in writing for specific purposes, diverse audiences, and genres. Correctly and ethically present scholarly writings utilizing the selected citation and writing style deemed appropriate for the student's program of study.
- Disciplined Inquiry - Employ scientific, quantitative and/or qualitative reasoning and other critical thinking strategies to analyze consequences and outcomes and to be able to recommend alternative solutions.
- Information Literacy - Using information in any format to research, evaluate, and ethically utilize information effectively and with appropriate attribution.
- Ethics - Demonstrate knowledge and application of prescribed ethical codes and behaviors prompted by the student's chosen profession.
- Integration Component - Evaluate the relationships and dependencies associated with planning, organizing, designing, managing, and implementing Information Systems in an organization.

- Business Application - Apply various models and methods for planning, organizing, designing, managing, and implementing Information Systems within a modern organization.
- Technology Project Management Knowledge - Identify, define, and analyze various aspects of Technology Project Management Knowledge.
- Organizational Influences - Define and analyze organizational influences upon Technology Projects.

MS-IST Web Design Concentration

- Oral Communication - Appraise the needs of the audience and then speak in a clear and succinct manner. Research, construct, and deliver professional presentations using a variety of communication tools and techniques.
- Written Communication - Write with clarity and precision using correct English grammar: mechanics (punctuation) and usage (sentence structure and vocabulary). Exhibit competence in writing for specific purposes, diverse audiences, and genres. Correctly and ethically present scholarly writings utilizing the selected citation and writing style deemed appropriate for the student's program of study.
- Disciplined Inquiry - Employ scientific, quantitative and/or qualitative reasoning and other critical thinking strategies to analyze consequences and outcomes and to be able to recommend alternative solutions.
- Information Literacy - Using information in any format to research, evaluate, and ethically utilize information effectively and with appropriate attribution.
- Ethics - Demonstrate knowledge and application of prescribed ethical codes and behaviors prompted by the student's chosen profession.
- Integration Component - Evaluate the relationships and dependencies associated with planning, organizing, designing, managing, and implementing Information Systems in an organization.
- Business Application - Apply various models and methods for planning, organizing, designing, managing, and implementing Information Systems within a modern organization.
- Web Design Tools - Apply Web Design operations and tools.
- Web Design Quality - Evaluate and apply Web Design quality and standards.

The graduate student who successfully completes the **Information Technology Project Management (M.S.)** program will be expected to have gained the following competencies:

Oral Communication

- Appraise the needs of the audience and then speak in a clear and succinct manner.
- Research, construct, and deliver professional presentations using a variety of communication tools and techniques.

Written Communication

- Write with clarity and precision using correct English grammar.
- Exhibit competence in writing for specific purposes, diverse audiences, & genres.

Disciplined Inquiry

- Employ scientific, quantitative and/or qualitative reasoning and other critical thinking strategies to analyze consequences and outcomes and to be able to recommend alternative solutions.

Information Literacy

- Recognize the need for material / information, locate the material/information, and effectively evaluate and use the material/information with appropriate attribution.

Ethics

- Demonstrate ethical codes and behaviors promoted by the student's chosen profession.

Integration Component

- Evaluate the relationships and dependencies associated with planning, organizing, designing, managing, and implementing Information Systems in an organization.

Business Application

- Apply various models and methods for planning, organizing, designing, managing, and implementing Information Systems within a modern organization.

Technology PM Knowledge

- Identify, define, and analyze various aspects of Tech PM Knowledge.

Organizational Influences upon Tech PM Knowledge

- Define and analyze organizational influences upon technology.

Artificial Intelligence and Machine Learning

- Identify how AI/ML tools change project management and what can be expected in the future as AI/ML tools advance in all areas especially in project management.

Leadership

- Apply the different leadership styles that are relevant when leading a team: visionary, coaching, democratic, affiliative, directive and pace setting.

Source: Wilmington University Catalogs AY2023-2024

COT OA PLANNING CYCLE

THE COLLEGE OF TECHNOLOGY OUTCOMES ASSESSMENT PLANNING CYCLE

Year 1	Implement findings from program review
Year 2	Data collection
Year 3	Analysis of data; data collection, analysis, and reflection. Report findings and implement recommended action.

A representative sampling of course sections may be utilized for the collection of outcomes assessment data. The Program Chair may adjust the sampling size, as necessary. The following guidelines have been established for representative sampling.

- As a goal, data collection should be statistically meaningful;
- Data may be collected from all course sections if seven or fewer sections are offered in a data collection year (or one hundred students). Where there are eight or more sections offered, sampling may be collected on a random basis.
- All University sites and instructional formats (face to face, hybrid, online, etc.) will be included. Data from various course delivery formats and geographical sites should be compared periodically for consistency.

GUIDELINES FOR BENCHMARKS
(AAOAP 2022)

The following guidelines have been established for summative assessments.

- The benchmark for program/graduation competencies should be recorded as a mean score.
- The benchmark for rubric-based assignments at the graduate and undergraduate level is a mean of 4.00/5.00.
- For data reported as percentage (e.g., comprehensive examination scores), the target for graduate level programs is a mean of 90% unless otherwise benchmarked by the outside accrediting bodies. For undergraduate programs reporting data as percentage, the target is a mean of 80%.
- The benchmark for teaching effectiveness, as measured by the CATS results, was first established in 2022 after the initial pilot. Respondents rated each question > 4.0 out of 5.0 scale with a response rate > 65%.

- Teaching Expectations for Instructors, which began in fall 2022, are another barometer in support of Teaching Effectiveness (a faculty's presence in a course, welcome announcements, personalized syllabi, and assignment due dates). The benchmark is yet to be established at the culmination of the inaugural academic year.
- The benchmark for student satisfaction with the academic experience, as measured by the Graduating Student Satisfaction Survey, is that Wilmington University will score at or above the national norm.
- The CATS survey offers questions #19 and #20 in support of student satisfaction. The benchmark with course and faculty satisfaction expects >80% respondents to rate > 4.0 out of 5.0 scale on each question.
- The University conducts an alumni survey for program review at one year and five years post-graduation, with a benchmark of respondents providing favorable rankings for all indicators.
- Benchmarks can be changed over time based on reflection upon assessment results.

- College of Technology will report mean scores for data sourced through Canvas as percentages.
- College of Technology Chairs may adjust their benchmarks (cannot go lower than the standard) to meet programmatic standards, accreditation/certification parameters or industry standards. Chairs may use either a 5-point scale or percentage as long as it can be related to and is consistent with the AAOAP plan benchmarks.
- College of Technology Chairs may, at their discretion, also report the percentage of students meeting and exceeding benchmarks.

DEFINITIONS

Summative Assessment: Assessments at this level are intended to provide a true gauge of "outcomes" of the students' experiences at the University (Smith & Barclay, 2010). Results are used to evaluate the extent to which program goals have been achieved. Summative data are generally collected in one to four courses near program completion. An exception is the general education assessment which is collected at varying points of program completion. Each courseembedded project, test, portfolio, or other student learning experience may assess several graduation and program competencies.

Direct Evidence: Direct evidence of student learning indicates whether or not a student; (1) has command of a specific subject content area, (2) can perform a certain task, (3) exhibit a particular skill, (4) demonstrate a certain quality in his/her work, or (5) hold a particular value (Middle States Commission on Higher Education, 2003). Examples of such measures include course homework assignments, term papers and reports, rubrics, research projects, etc. at the course level as well as capstone projects, and employer or supervision ratings of student performance at the program level.

One primary method of assessing student learning is through course-embedded, criterionreferenced, assessment measures (CECRAM). This approach was developed by consensus of the Vice President for Academic Affairs and all College Deans in the year 2000. CECRAM is typically implemented through grading rubrics that are designed to explicate each criterion to be assessed with an explanation of the product scoring at each performance level from 1 (unsatisfactory) to 5
(excellent).

Additional direct methods are used to assess student learning outcomes and may include:

- Exams with embedded questions (generally used for science or math courses that may be measured on a percentage scoring system),
- Clinical evaluations (generally, but not always, used in conjunction with a rubric in programs such as nursing and education), and
- Standardized comprehensive exams.

Indirect Evidence: Indirect evidence of student learning is correlational - meaning that data exist which indicate that students are probably learning, but the evidence is less clear than evidence from direct methods (Suskie, 2018). As a result, indirect evidence should not be the only means of assessing outcomes (Middle States, 2007). Examples of indirect methods at the course level include course grades, as well as the time spent on service learning or homework. At the program level, employer or alumni surveys, student perception surveys, retention and graduation rates, and graduate school placement are some examples of indirect evidence.

Graduation Competencies: Critical outcomes of the academic experience have been developed by the Faculty Senate and are called competencies. The undergraduate competencies are subdivided into general education and academic program competencies. The general education competencies are assessed by both the College of Education & Liberal Arts and specific academic programs, which also are responsible for assessing the program competencies. The graduate - level competencies are assessed at the program level. Each college has developed a written outcomes assessment plan that delineates the assessment process for each program. In this plan, the terms, university-level proficiency, and advanced level as they pertain to the graduation competencies should be defined. In addition, an Ad hoc Faculty Senate Committee on Information Literacy has developed a rubric available for use by all academic programs to access Information Literacy.

Source: Wilmington University Academic Affairs Assessment Plan 2022

PROGRAM MAPS

Student learning outcomes, as reported at the University level, relate to the achievement of the graduation competencies. At the program level, *mapping* identifies the linkage of graduation competencies, program competencies, course objectives, and assessment measures.

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