From:	Smith, Randy
To:	Digiovine, Carmen (OSUMC)
Cc:	Sutherland, Sue; Nelson, Thomas; Smith, Randy; Reed, Katie; Duffy, Lisa; Hunt, Ryan; Onate, James; Weaver, Lindy (OSUMC); Gold, Jennifer (OSUMC); Moore, Amy (OSUMC); Jones, Norman; Talbot, Ann; Brown, Trevor; Griffiths, Rob
Subject:	Proposal to create a major in Assistive Technology and Accessibility
Date:	Thursday, April 23, 2026 8:39:04 AM
Attachments:	image001.png

Carmen:

The proposal from the School of Health and Rehabilitation Sciences to create a major program in Assistive Technology and Accessibility leading to the Bachelor of Science in Health and Rehabilitation Sciences was approved by the Council on Academic Affairs at its meeting on April 22, 2026. Thank you for attending the meeting to respond to questions/comments.

The proposal will now be sent to the Board of Trustees for action at a committee meeting on **May 21, 2026**. If then approved by the full Board on June 4, 2026, my office will work with you on the approval process with the Ohio Department of Higher Education.

Once fully approved, the Office of the University Registrar will work you with any implementation issues.

Please keep a copy of this message for your file on the proposal and I will do the same for the file in the Office of Academic Affairs.

If you have any questions please contact the Chair of the Council, Professor Sue Sutherland (.43), or me.

I wish you success with this important program development.

Randy

THE OHIO STATE UNIVERSITY

W. Randy Smith, Ph.D.
Vice Provost for Academic Programs
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University Square South, 15 E. 15th Avenue, Columbus, OH 43201
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THE OHIO STATE UNIVERSITY
COLLEGE OF MEDICINE

C. Alexander Grieco, M.D.
Interim Vice Dean for Education
Associate Professor of Biomedical Education and Anatomy
Associate Professor of Radiology

320 Hamilton Hall
1645 Neil Avenue
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Lindy Weaver, Ph.D., OTR/L
Director of Academic Affairs
OSU College of Medicine
School of Health and Rehabilitation Sciences
206A Atwell Hall
453 Tenth Avenue
Columbus, OH 43210

November 25, 2025

Dear Dr. Weaver:

Thank you very much for sharing the updated and revised version of the proposal for a new undergraduate program in the OSUCOM School of Health and Rehabilitation Sciences' Division of Occupational Therapy, namely, the Bachelor of Science Degree in Assistive Technology and Accessibility. As Interim Vice Dean for Education, I am writing to provide my enthusiastic support for the proposed program, and to offer my commendation for the great deal of work that has been committed to creating this experience under your leadership.

Based on the copious information you have shared – including the comprehensive executive summary with its detailed description of the program's rationale, the educational objectives of the proposed program, and the letters of approval and/or concurrence – I am assured that the program would be able to accomplish the core goal of "supporting individuals with disabilities through thoughtful application of assistive technology and inclusive design."

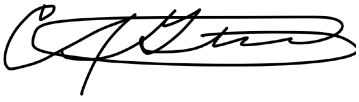
Accomplishing the training goals for any novel program through a fully online delivery method will be quite an undertaking, yet I am confident through your description and plans that this method will allow the content to reach the broadest possible learner group.

I very much appreciate the direct inclusion of content in ethical practice and the role of artificial intelligence related to assistive technology, as well as the options available for the flexible but rigorous and meaningful capstone experience.

The proposed program is excellent, not simply for the connection to the joint university-wide and state-wide goal of supporting a strong and expanding workforce, but for its logical, timely, and powerful expansion of the existing Assistive and Rehabilitative Technology Certificate offered by the School of HRS.

If there is any way I can further support the process from this point forward, in the way of pursuing additional approvals or providing additional commentary to the Council on Academic Affairs, please do not hesitate to let me know.

Sincerely,



C. Alexander Grieco, M.D.
Interim Vice Dean for Education
The Ohio State University College of Medicine

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July 17, 2025

Curriculum Committee
School of Health and Rehabilitation Sciences
The Ohio State University

Dear Drs. DiGiovine and Lemmon,

On July 17, 2025, the HRS Curriculum Committee reviewed the program proposal for the new major in Assistive Technology and Accessibility, which will result in a bachelor's of science degree in Health & Rehabilitation Sciences.

The committee unanimously voted in support of the program with the following revisions:

- *Remove AT abbreviation to avoid confusion with the Athletic Training program.*
- *Clarify accreditation requirements (or non-requirements) and clarify which exams/certifications students are eligible for.*
- *Explicitly state that all elective courses are offered online and note if any course options are not offered online.*
- *Ensure the first page of the proposal notes that this is a Bachelor's of Science*
- *Gather letters of support and concurrence*

Once these revisions have been addressed, please resubmit to Dr. Lindy Weaver who will move the course forward to through the university system.

Sincerely,

Lindy Weaver, PhD, MOT, OTR/L
Associate Professor, Clinical

THE OHIO STATE UNIVERSITY

Director, Academic Affairs

THE OHIO STATE UNIVERSITY

Division of Occupational Therapy
School of Health and Rehabilitation Sciences

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September 2, 2025

RE: Response to HRS Curriculum Committee letter dated July 17, 2025

Dear HRS Curriculum Committee:

Thank you for reviewing the proposal for the Bachelor of Science degree in Assistive Technology and Accessibility (ATA), and providing feedback on the proposal. Based on the feedback we have made several revisions to the proposal. The requested revisions from the committee and the response to the request are listed below.

- Remove AT abbreviation to avoid confusion with the Athletic Training program.
- Response: The AT abbreviation was removed throughout the document.

- Clarify accreditation requirements (or non-requirements) and clarify which exams/certifications students are eligible for.
- Response: The accreditation requirements are voluntary and are administered through the Commission on Accreditation of Allied Health Education Programs (CAAHEP). We plan on initiating the accreditation application process during the 2027-2028 academic year. Graduation from an accredited program is not a requirement for sitting for the Assistive Technology Professional (ATP) and Seating and Mobility Specialist (SMS) exams, as there are multiple pathways to acquiring the ATP and SMS certifications. We added this information to the "Accreditation Expectations for Program Assessment" section
- Response: The ATP and SMS credentials require successful completion of three components: 1) education, 2) work experience, and 3) examination. Upon completion of the ATA BS program, students will be eligible to sit for the ATP and SMS certification exams. However, they must still complete 1500 hours of work experience and pass the examination to receive the credential. The work experience can occur prior to, during, or after enrollment in the ATA program, as long as it occurs within in the preceding 6 years of taking the exam. This information is in the "Rationale: ATP Certification Pathway" section.

- Explicitly state that all elective courses are offered online and note if any course options are not offered online.
- Response: We updated the "Assistive Technology and Accessibility Program Curriculum : Curriculum Guide : Electives" section to explicitly state that elective courses are offered in a distance learning mode unless otherwise noted.

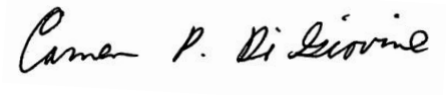
- Ensure the first page of the proposal notes that this is a Bachelor's of Science
- Response: We added a title page, and included "Bachelor of Science" in the program degree title.

- Gather letters of support and concurrence
- Response: We added the letters of support and concurrence to Appendices A, B, D, and E. We also highlighted the letters of support in the proposal.

In addition to addressing the committee's revision requests, we added a table of contents and the market analysis from the Ohio State Online (Appendix C). Once again thank you for the opportunity to respond to the committee's comments, and please feel free to contact me if you have any questions.

THE OHIO STATE UNIVERSITY

Sincerely,



Carmen P. DiGiovine, PhD ATP SMS RET
Professor of Clinical Health and Rehabilitation Sciences
Director – Occupational Therapy Division

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July 3, 2025

RE: Proposal for the Bachelor of Science Degree in Assistive Technology and Accessibility

Dear HRS Curriculum Committee:

I am pleased to submit for your consideration the proposal for the Bachelor of Science degree in Assistive Technology and Accessibility (ATA). This program is designed to meet the growing need for professionals to support individuals with disabilities through the application of science, technology, and inclusive practices. It builds upon the foundation established by the Assistive and Rehabilitative Technology Certificate (ARTC) program, which has been successfully offered since 2019.

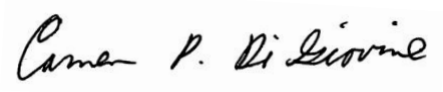
The proposed degree program is aligned with the university's mission to advance accessibility, promote inclusive excellence, and prepare graduates for leadership in emerging fields. The learning objectives are intentionally structured to reflect broad educational aims that focus on ethical decision-making, consumer-centered approaches, interdisciplinary collaboration, and innovative technology design and application. The program is fully online, expanding access to a diverse student population and responding to the increasing demand for flexible learning pathways in higher education.

Throughout the development of this proposal, we have prioritized alignment with institutional goals, workforce needs, and best practices in distance education. The proposed curriculum offers a rigorous, student-centered experience that emphasizes applied skill development, leadership, and real-world problem solving in the field of assistive technology.

In preparing this proposal, we consulted regularly with the HRS Office of Academic Affairs (OAA) and Ohio State Online. In addition, we followed the OSU Council on Academic Affairs (CAA) suggested guidelines, and the guidance found in the OSU Organization, Curriculum, and Assessment Handbook (revised 9/9/2021). Though the proposal includes the vast majority of materials required by the OSU CAA, we are still compiling the letters of concurrence and the letters of support. We will forward these letters to the HRS OAA as soon as possible.

Thank you for your consideration of this proposal. I welcome the opportunity to answer any questions or provide additional information.

Sincerely,



Carmen P. DiGiovine, PhD ATP SMS RET
Professor of Clinical Health and Rehabilitation Sciences
Director – Occupational Therapy Division

Proposal for the Bachelor of Science Degree in Assistive Technology and Accessibility

Division of Occupational Therapy

School of Health and Rehabilitation Sciences

College of Medicine

The Ohio State University

Table of Contents

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Division of Occupational Therapy
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Executive Summary

Interest in Assistive Technology and Accessibility (ATA) continues to grow as more communities and organizations prioritize inclusive design and broaden access to participation for individuals of all abilities. This fully online program offers a distinctive educational experience that prepares students to support individuals with disabilities through the thoughtful application of assistive technology and inclusive design.

The program features an interdisciplinary curriculum that spans mobility, communication, computer access, environmental control, recreation, transportation, mental health, and cognitive support. Students learn to evaluate user needs, apply evidence-based practices, and design technology-supported solutions that reduce barriers and enhance engagement in everyday life. Instruction is delivered through interactive, online coursework that fosters reflection, critical analysis, and collaboration across sectors.

A strong emphasis is placed on current and emerging topics, including digital accessibility, artificial intelligence, rehabilitation engineering principles, and interdisciplinary colaboration. Courses examine how technologies such as AI-powered communication tools, wearable devices, accessible gaming platforms, and smart environments can promote independence and meaningful participation. Ethical practice, person-centered thinking, and inclusive design are central themes across the curriculum.

The program culminates in the assistive technology capstone, where students select a personalized path that aligns with their professional interests. Options include a project-based assessment, a virtual internship, or remote fieldwork experience. This final component allows students to demonstrate competencies in needs assessment, intervention planning, implementation, evaluation, and professional practice.

Graduates are prepared to meet the growing demand across healthcare, education, technology, and design sectors for professionals who can lead in creating inclusive environments and accessible technology solutions. The program equips students with the skills to advocate for broader access, apply creative problem-solving, and contribute meaningfully to communities striving for full participation for all.

General Information

a. Nature of Proposal:

This proposal outlines the development of a new Bachelor of Science degree in Health and Rehabilitation Sciences with a specialization in Assistive Technology and Accessibility, intended to complement the existing Assistive and Rehabilitative Technology Certificate (ARTC) program, established in 2019.

b. Name of Proposed Program:

Assistive Technology and Accessibility (ATA)

c. Degree Title:

The degree will be conferred as a Bachelor of Health and Rehabilitation Sciences, Assistive Technology and Accessibility.

d. Proposed Implementation Date:

The program is targeted for implementation in Fall 2026.

e. Delivery Method:

The program will be delivered online to accommodate diverse learning needs, providing flexibility for learners. This format ensures accessibility for individuals with varying schedules, geographical locations, and learning preferences. Interactive modules and virtual collaboration tools will also be utilized to create an engaging and inclusive learning environment.

f. Academic Unit Oversight:

The program will be administered by the School of Health and Rehabilitation Sciences within The Ohio State University College of Medicine, Division of Occupational Therapy. The ATA has the support of the School leadership as demonstrated by the letter of support from Jimmy Oñate, Interim Director of the School of Health and Rehabilitation Sciences (Appendix A). The division has a strong history of providing innovative programs that address emerging needs in healthcare and rehabilitation technology. Faculty within the school have extensive experience in teaching, research, and clinical practice related to assistive and rehabilitative technology, making them uniquely qualified to support the success of this new degree. The program will also benefit from existing partnerships with healthcare systems, educational organizations, technology industries, and professional organizations, ensuring that students are prepared for professional roles that advance accessibility, inclusivity, and health outcomes for individuals with disabilities through the application of technology.

Rationale

The ATA program addresses a need for professionals with knowledge, skills, and experience to support the technology and accessibility of individuals with disabilities. The ATA program will offer a well-rounded educational experience that emphasizes broad access, universal design, and barrier-free environments to ensure inclusivity for all individuals. The program is designed to bridge the gap between technology and human needs, empowering students to develop innovative solutions that enhance accessibility and independence for individuals with disabilities. By prioritizing accessible practices and fostering supportive environments, graduates will be prepared to assume leadership roles across diverse fields, including assistive technology, education, healthcare, product development, and public policy. With a focus on equal access and inclusive design, graduates will be prepared to address global challenges related to accessibility and equity, driving forward innovation that supports meaningful participation for all.

a. Alignment with the University's Mission:
   The proposed ATA Program aligns with The Ohio State University's vision, mission, and shared values by directly supporting its goals of advancing education, fostering leadership, and creating meaningful societal impact. The program will prepare highly skilled practitioners in assistive technology, equipping students with specialized, evidence-based knowledge essential for success in this dynamic and rapidly evolving field. Through this preparation, the ATA Program will contribute to academic excellence that is responsive to contemporary societal needs. Graduates will develop broad expertise in assistive technology, including service delivery and policy, and will be well-positioned to serve as leaders and engaged citizens capable of addressing complex societal challenges. By emphasizing evidence-based practices, interdisciplinary collaboration, and empowerment, the program will contribute to improving the well-being of local, state, national, and global communities, reflecting Ohio State's core values of Excellence and Impact, Care and Compassion, Diversity and Innovation, and Inclusion and Equity.
b. The Growing Need for Assistive Technology Professionals:
   The World Health Organization reports that by 2050, over 3.5 billion people will require assistive products due to an aging global population and the increasing prevalence of chronic conditions (World Health Organization & United Nations Children's Fund, 2022). Assistive technology includes a wide range of tools, such as mobility devices, communication aids, and environmental control systems, all aimed at enhancing the quality of life for individuals with disabilities. As the demand for these technologies rises, so does the need for a skilled and knowledgeable workforce capable of designing, implementing, and evaluating assistive technology solutions. The need for skilled and knowledgeable workforce is support by letters of support (Appendix B) from multiple industry representatives. Well-designed educational programs are critical to fully preparing

assistive technology professionals to provide effective, high-quality services (Smith et al., 2018).

Industry representatives that provided a letter of support for the ATA program.

ADED – The Associate for Driver Rehabilitation Specialists
Assistive Technology Industry Association (ATIA)
Battelle
Clinician Task Force (CTF)
Immergo Labs, Inc.
International Registry of Rehabilitation Technology Suppliers (iNRRTS)
Levels Unlocked Enterprises Ohio
Microsoft
National Coalition for Assistive and Rehab Tech (NCART)
National Mobility Equipment Dealers Association (NMEDA)
Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)

c. Advancing Assistive Technology Through Education:

This is a pivotal moment for the advancement of assistive technology, as growing global recognition and policy initiatives emphasize its critical role in promoting health, independence, and participation (Manship et al., 2023). Foundational international frameworks, such as the Convention on the Rights of Persons with Disabilities (United Nations, 2006) and World Health Assembly Resolution 71 (World Health Assembly, 2018), have strongly advocated for the prioritization of assistive technology. Global initiatives such as WHO's GATE program (World Health Organization, 2020) and AT2030 (ATScale, 2018) have identified the urgent and growing need for assistive technology, while calls for greater investment in the field continue to gain momentum (ATScale, 2021). Ultimately, establishing an undergraduate program in ATA would directly support the vision outlined in the Global Report on Assistive Technology (WHO & UNICEF, 2022), helping to create a future where assistive technology is accessible to all who need it. By addressing the growing need for skilled professionals and fostering a collaborative, evidence-driven approach, this program would be pivotal in advancing the field of assistive technology and expanding its positive impact.

d. Developing Skilled Assistive Technology Professionals:

The ATA Program would serve as a vital pathway for developing professionals equipped with the theoretical foundation and practical skills necessary to meet these challenges. Graduates will be trained to develop innovative solutions, engage in interdisciplinary collaboration, contribute to policy development, and enhance service delivery. Additionally, the program will foster skills in key areas such as outcome measurement and data analysis, which are crucial for enhancing service quality and ensuring accountability (Layton et al., 2022).

e. Accreditation:

The demand for skilled professionals in ATA continues to grow as advancements in technology create new opportunities to improve the lives of individuals with

disabilities. To meet this need, the ATA Program will provide students with a comprehensive education that combines theoretical knowledge with practical application. By carefully mapping the curriculum to the accreditation standards established by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and adhering to the guidelines set forth by the Committee on Accreditation for Rehabilitation Engineering and Assistive Technology Education (CoA-RATE), the program will ensure students are well-prepared to enter the workforce and pursue professional certification. Aligning with these established standards will also facilitate a smooth accreditation process, demonstrating the program's commitment to academic excellence and industry relevance.

f. ATP Certification Pathway:

A key feature of the program is its alignment with the eligibility requirements for the Assistive Technology Professional (ATP) certification, administered by the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA). Graduates of the program, earning a bachelor's degree in a field related to rehabilitation science as defined by RESNA, will have the opportunity to sit for the ATP exam through an Accelerated Pathway Program (even prior to program accreditation). Once they have successfully comleted the ATA BS program, passed the exam and completed 1,500 hours of documented work experience in assistive technology (within a six-year period), they will be granted ATP certification.

g. Building a Strong Technical Foundation:

This demand for assistive technology professionals is fueled by technological advancements and the growing need to integrate these innovations into everyday life (Basu et al., 2018). This has increased the need for assistive technology professionals who can navigate these advancements and provide comprehensive support to consumers. The proposed bachelor's degree in ATA directly addresses this need by preparing students with both the foundational knowledge and specialized skills required to navigate this dynamic field.

h. Cultivating Service Delivery Expertise:

The School of Health and Rehabilitation Services is well equipped to develop and deliver a comprehensive bachelor's degree in ATA, leveraging its expertise in health sciences and rehabilitation education. Effective assistive technology solutions require a deep understanding of both the unique needs of individuals with disabilities and the environments in which they live, work, and learn. With a curriculum grounded in clinical practice and real-world application, this program will prepare students to address these complex needs. Courses within the program will focus on equipping students with essential skills related to the assistive technology service delivery process, including conducting detailed needs assessments, customizing assistive technology interventions, implementing rehabilitation technology, evaluating outcomes, and delivering ethical, client-centered care. These competencies are critical for ensuring that graduates can create and implement assistive technology solutions that meaningfully improve the quality of life, promote independence, and enhance participation for

individuals with a wide range of disabilities. By focusing on these key skills, the program aims to develop professionals capable of keeping pace with rapid technological advancements while maintaining a strong commitment to the well-being and dignity of the clients they serve. The school's established resources, faculty expertise, and commitment to excellence in health and rehabilitation education position it to lead in this growing and essential field. With the increasing demand for skilled assistive technology professionals, the program is uniquely poised to make a significant contribution to the field and to the broader goal of fostering a more inclusive and accessible society.

i. Promoting Policy Awareness and Advocacy:

The rapidly evolving field of assistive technology demands professionals who can seamlessly integrate technological expertise with a focus on advancing access and improving quality of life for individuals with disabilities. Advocacy plays a vital role in identifying and addressing barriers that restrict access to assistive technology, including economic, social, and structural challenges. Additionally, it supports the expansion of effective community practices to a larger scale, ensuring greater access to assistive technology for those in need (MacLachlan et al., 2018). The proposed bachelor's degree in ATA will prepare graduates to not only deliver effective assistive technology solutions but also lead efforts in creating a more equitable society where accessibility is embedded in both public and private systems.

j. Fostering Research and Development Skills:

The rapidly evolving field of assistive technology requires professionals who are not only skilled in applying solutions but also grounded in research and evidence-based practices to ensure effective outcomes. Evidence-based practice serves as the foundation for informed decision-making in the selection and implementation of assistive technology, promoting effective and cost-efficient interventions (Nguyen et al., 2015). To meet this demand, the proposed bachelor's degree in ATA emphasizes experiential learning through case studies and case vignettes. By engaging in research, data-driven analysis, and applying evidence-based practices, students will gain the critical thinking and problem-solving skills needed to address real-world challenges faced by individuals with disabilities.

k. Preparing Graduates for Diverse Careers:

Graduates of the program will be well-positioned for various roles, including assistive technology professionals, product developers, healthcare providers, and educational consultants. Employment opportunities span schools, hospitals, rehabilitation centers, government agencies, and technology firms. Letters of support from various sectors highlight the demand for the program (Appendix B).

l. Market Assessment:

Ohio State Online completed a market assessment for the ATA program [then referred to as the assistive and rehabilitative technology (ART) program] in Autumn 2024 (see Appendix C for full report). The assessment examined program trends, degree completion patterns, comparable programs, and job outlooks. Its primary objectives were to evaluate current market demand for the degree and to explore related workforce opportunities. To address these objectives, programs

and employment trends in rehabilitation sciences and assistive technology were reviewed. The following key insights emerged from the analysis.

i. Student interest in rehabilitation science and assistive technology degrees is increasing, but the number of graduates in these fields remains low. This creates a timely opportunity to establish a new program while the market is still growing and not yet saturated.
ii. Comparable programs incorporate assistive and rehabilitative coursework into broader curricula, allowing students to tailor their education. This approach is consistent with the current structure of the ARTC program.
iii. Comparable undergraduate programs are often designed as pathways to graduate education, which aligns with our experience in the ARTC program and reflects our expectations for the ATA program.
iv. Workforce demand for assistive technology and rehabilitation is growing, along with the need for specialized skills in these areas. These skills often complement the core competencies of professionals in engineering, occupational therapy, physical therapy, special education, and speech-language pathology. Moreover, they form the foundation for roles such as assistive technology professionals, rehabilitation technologists, and rehabilitation engineers.
v. The fields of assistive technology and rehabilitative technology are still emerging and have not yet settled on a standardized job title. This creates a valuable opportunity for The Ohio State University, a recognized leader in assistive technology, research, and clinical services, to define the profession as Assistive Technology Professionals (ATPs) and to lead the development of a unified pathway into the field.

The market assessment indicates that The Ohio State University, and the School of Health and Rehabilitation Sciences specifically, should continue offering the ARTC program to meet the needs of professionals seeking complementary skills. Additionally, there is a strong rationale to develop an undergraduate major in assistive technology to provide a clear pathway for individuals interested in this field and to address workforce demands within the assistive technology industry. The proposed ATA major will serve students who are increasingly drawn to programs that integrate technology with the needs of individuals with disabilities, offering them access to a novel and emerging profession. This major will also benefit Ohio State by creating a pipeline of future ATPs who may contribute to OSU Wexner Medical Center or pursue advanced degrees within OSU graduate programs. Furthermore, the major will support regional and statewide efforts by preparing professionals equipped to meet the technology needs of individuals with disabilities and address the growing demand for ATPs.

Program Goals

a. Enhance Student Engagement:
   Create an interactive and inclusive learning environment that advances assistive technology and accessibility as a profession. The learning environment fosters active participation, critical thinking, and collaboration through innovative teaching strategies, simulations, and real-world applications.
b. Continuously Improve Student Outcomes:
   Regularly evaluate and refine the program based on feedback, technology advancements, and data analysis to ensure students are prepared for professional excellence in assistive technology and accessibility, with skills aligned to industry standards and emerging trends.
c. Promote Lifelong Learning and Professional Growth:
   Equip students with the skills, knowledge, and experiences needed for continuous professional development, leadership, and advocacy in assistive technology and accessibility professions.
d. Foster Interprofessional Collaboration:
   Emphasize the importance of interprofessional collaborative education and practice to make meaningful contributions to the field.

Assessment of the Program Goals

Each goal is systematically paired with direct and indirect assessment methods, along with clearly defined criteria for success. This structured approach ensures the systematic evaluation, continuous monitoring, and iterative improvement of the program. Data collected through student performance assessments, course evaluations, graduate feedback, and employer input will be regularly reviewed through monthly curricular meetings and annual program reviews. These continuous feedback loops allow the program to assess its effectiveness, identify areas for growth, and make timely adjustments to teaching strategies, course content, and assessment processes. By engaging in this ongoing cycle of evaluation and refinement, the ATA program remains responsive to student needs, emerging trends, and evolving industry standards, ultimately ensuring sustained program quality and relevance.

Program Goals and Assessment Alignment

Program Goal	**Direct Measures**	**Indirect Measures**	**Criteria for Success**
Enhance Student Engagement	Competency evaluations (e.g., written exams, scenario-based exams) Participation in innovation challenges Case study analyses and group projects	Student course evaluations metrics focused on engagement and instructional strategies.	≥ 70% of students report high engagement on course evaluations (positive graduate feedback on opportunities for active learning and real-world application)
Continuously Improve Student Outcomes	Performance-based assessments across courses Capstone projects demonstrating mastery Portfolio reviews showing longitudinal growth Case study assessments evaluating clinical reasoning and problem-solving	Monthly curricular review meetings analyzing student outcomes Annual program review incorporating employer and alumni feedback	Demonstrated improvement in student assessment scores over time. Positive graduate and employer ratings on graduate preparedness, ≥ 70% alumni satisfaction with career readiness
Promote Lifelong Learning and Professional Growth	Capstone projects addressing leadership, advocacy, and emerging trends Participation in interprofessional activities and innovation challenges	Alumni surveys on continued education and leadership roles Graduate exit surveys on commitment to lifelong learning	≥ 70% of alumni report engagement in continued education or professional development within one year of graduation. Positive graduate feedback on preparation for lifelong learning

Program Goal	Direct Measures	Indirect Measures	Criteria for Success
Foster Interprofessional Collaboration	Peer and self-assessments on interprofessional teamwork Interprofessional case study assignments Participation in interdisciplinary simulations and projects	Student course evaluations on collaboration opportunities Employer feedback on graduates' teamwork skills Alumni surveys on collaborative practice	≥ 70% of students achieve high ratings on teamwork assessments Strong employer feedback regarding graduates' ability to collaborate

Learning Objectives

The program is designed to develop students' proficiency in applying assistive and rehabilitative technologies to support meaningful participation for individuals with disabilities. These learning objectives represent broad aims that guide the program's overall educational focus. Students will build competence in evaluating client needs, applying evidence-based, consumer-centered practices, and designing inclusive technology solutions that remove accessibility barriers. The curriculum emphasizes ethical decision-making, professionalism, and interdisciplinary collaboration to ensure client well-being, autonomy, and dignity. Graduates will be prepared to lead advancements in assistive technology through innovation, advocacy, and contributions to inclusive policies and practices. The program's learning objectives also foster leadership, critical thinking, and reflective practice, equipping students to effectively address real-world challenges in the field of assistive technology.

a. Demonstrate proficiency in using accessible assistive and rehabilitative technologies to support meaningful participation for individuals with disabilities.
b. Apply evidence-based, consumer-centered practices by conducting evaluations, implementing interventions, and refining assistive technology solutions.
c. Evaluate the needs of clients to identify appropriate assistive technology solutions that facilitate participation and reduce barriers in daily life, learning, work, and community settings.
d. Exhibit ethical decision-making and professionalism to protect the well-being, autonomy, and dignity of clients.

e. Identify and remove accessibility barriers to promote inclusiveness and support full participation in diverse environments and activities.
f. Design, implement, and evaluate innovative technologies that actively reduce barriers, create opportunities, and enable individuals to participate fully in daily life, learning, work, and community activities.
g. Collaborate effectively with interdisciplinary teams to develop assistive technology solutions and support participation for people with disabilities across healthcare, educational, workplace, and community settings.
h. Lead advancements in assistive technology through innovation, advocacy, and contributions that promote inclusive policies and practices.

Assessment Methods for Learning Objectives

The following table provides an overview of the assessment methods used in the ATA Program. Each method is designed to evaluate student knowledge, applied skills, professional growth, and overall program effectiveness. The table outlines the assessment type, a brief description, and its primary purpose within the curriculum.

Assessment Method	Description	Purpose
Practical Skill Demonstrations	Students perform virtual simulations, device configurations, and client education exercises.	Assess applied skills and problem-solving ability.
Case-Based Assignments	Students analyze complex scenarios and propose assistive technology solutions.	Evaluate clinical reasoning and solution design.
Capstone Projects	Students complete comprehensive projects that integrate program learning to solve real-world problems.	Assess synthesis of knowledge, leadership, and innovation.
Portfolio Submissions	Students develop digital portfolios including needs assessments, intervention plans, and design work.	Document progressive skill development and reflection.
Outcome-Based Testing	Quizzes and exams covering evidence-based practices, ethics, and assistive technology standards.	Measure content knowledge and critical thinking.

Assessment Method	Description	Purpose
Student Self-Reflections	Students complete reflective journals and end-of-course surveys.	Promote self-assessment and track growth in confidence and competence.
Peer and Faculty Feedback	Feedback provided on teamwork, collaboration, and professional communication in group assignments.	Assess professional behaviors and teamwork skills.
Virtual Engagement Metrics	Participation in online discussions, virtual labs, and synchronous sessions.	Monitor student engagement and learning progress.
Student Surveys and SEIs	Ongoing course surveys administered during the course to inform instructional adjustments, and Student Evaluation of Instruction (SEI) feedback collected at the end of the course to measure student satisfaction, perceived learning, and instructional effectiveness.	Gather feedback for continuous improvement and student-centered adjustments.
Program Retention and Completion Rates	Ongoing tracking of student retention and graduation rates.	Assess student success and curriculum alignment.

Program Contributions to the University's Goals, Objectives, Role, and Mission

The Assistive Technology and Accessibility (ATA) Program directly advances The Ohio State University's mission to foster academic excellence, promote leadership, and create meaningful societal impact. As previously iterated, the program prepares professionals to develop and apply inclusive, evidence-based assistive technology solutions, aligning with the university's commitment to improving the human condition. The curriculum emphasizes interdisciplinary collaboration, ethical decision-making, and community engagement, equipping graduates to address the complex challenges of accessibility and inclusion. Through this approach, the program meaningfully contributes to the university's goals of advancing education, expanding diversity and innovation, and enhancing the well-being of local, national, and global communities.

Unique Characteristics that Position OSU to Offer this Program

The Ohio State University is particularly well-suited to offer the ATA Program based on its unique institutional strengths. OSU's School of Health and Rehabilitation Sciences has demonstrated sustained success in assistive technology education through the Assistive and Rehabilitative Technology Certificate (ARTC) program, which has prepared hundreds of students since 2019. The university's interdisciplinary culture provides exceptional opportunities for collaboration with departments such as engineering, computer science, design, education, disability studies, and health sciences, creating a rich environment for cross-sector innovation. OSU's established clinical partnerships, its leadership in health sciences, and its expansive research infrastructure further support the university's capacity to deliver a comprehensive program that prepares graduates for real-world impact. Additionally, OSU's deep institutional commitment to accessibility, inclusion, and community engagement makes it particularly appropriate to lead this educational initiative.

Benefits for Students, the Institution, and the Region

The Assistive Technology and Accessibility (ATA) Program offers students a unique and comprehensive pathway into an emerging, in-demand profession. Unlike certificate programs, this bachelor's degree provides a deep, interdisciplinary education that prepares students for careers across healthcare, education, engineering, product design, and public policy. Students will benefit from hands-on learning, exposure to cutting-edge topics such as artificial intelligence, digital accessibility, and inclusive design, and access to professional networks through strong industry, professional, and community partnerships. The program's fully online delivery model increases accessibility for students with diverse learning needs and geographic locations, while equipping graduates with the specialized knowledge and credentials needed to pursue Assistive Technology Professional (ATP) certification and lead future accessibility initiatives.

The program also advances The Ohio State University's leadership in health sciences, accessibility, and inclusive innovation. By offering one of the first dedicated undergraduate degrees in assistive technology and accessibility, OSU will fill a national educational gap and attract a broad, diverse student population, including those from outside Ohio seeking specialized training. It will create new opportunities for interdisciplinary research and collaboration across engineering, computer science, design, disability studies, education, and health sciences.

Additionally, the program directly supports Ohio's growing need for a skilled assistive technology workforce, strengthening the state's position as a leader in inclusive innovation and contributing to improved quality of life and participation for individuals with disabilities across the region.

Similar Majors Offered in Ohio and the U.S.

Across Ohio and the United States, most educational offerings in assistive technology are delivered as certificate programs, undergraduate minors, or graduate degrees, not as full undergraduate degrees. Examples include the Assistive Technology Certificate at Bowling Green State University and similar certificate pathways at the University of Illinois Chicago and the University of Pittsburgh. These programs typically supplement other majors such as occupational therapy, engineering, or special education, and do not offer comprehensive, stand-alone undergraduate preparation in assistive technology. Full bachelor's degrees focused exclusively on assistive technology and accessibility are nonexistent.

The ATA Program at Ohio State is innovative because it moves beyond the limitations of the certificate model to offer a dedicated undergraduate degree and a dedicated pathway to ATA professions. This comprehensive degree prepares students with the interdisciplinary, technical, and advocacy skills required to lead in the rapidly evolving ATA field. By filling a critical gap in undergraduate education, the ATA Program positions OSU as a national leader in shaping the next generation of assistive technology professionals.

Accreditation Expectations for Program Assessment

The ATA program is design to meet the accreditation requirements established by the RESNA CoA-RATE and administered through CAAHEP. The accreditation of educational programs in assistive technology is sponsored by RESNA. The accreditation process is voluntary, and graduation from an accredited program is not a requirement for sitting for the ATP or seating and mobility specialist (SMS) exams. However, graduation from an accredited program may reduce the work requirements for the ATP certification. Therefore, with the goal to exceed higher education best practices and support student preparation for the ATP and SMS examinations, we plan on initiating the accreditation application process during the 2027-2028 academic year.

Accreditation standards will require the ATA Program to measure outcomes through a systematic and comprehensive approach, ensuring its effectiveness in achieving stated program goals and learning domains. This approach will include regular evaluations to maintain the program's relevance and ensure it aligns with professional expectations. To achieve this, the program will utilize diverse metrics, such as performance on national credentialing examinations, retention and attrition rates, graduate and employer satisfaction

surveys, and job placement rates. The results of these assessments will be rigorously analyzed to identify trends, strengths, and areas for improvement within the program. This data-driven analysis will serve as the foundation for informed decision-making about program modifications, ensuring the program remains responsive to the evolving needs of students and the assistive technology profession. Based on the analysis of outcomes, the program will develop actionable plans to address any identified shortcomings. These action plans will ensure continuous improvement and maintain the program's alignment with accreditation requirements. Furthermore, the ATA Program will comply with reporting standards set by the accrediting body, CoA-RATE, by periodically submitting detailed reports. These reports will outline program goals, learning domains, evaluation systems, and outcomes, including analyses and action plans as necessary to demonstrate the program's commitment to meeting accreditation standards and preparing students for professional success.

Relationship with Other Programs

a. Cooperative Arrangements with Other Institutions and Organizations:
   None
b. Articulation Arrangements (Direct Transfer Opportunities):
   None
c. Consultants or Advisory Committees Used in the Development of the Program:
   None
d. Overlaps with Other Programs or Departments Within the University:
   Based on the historical records of the ARTC program, students from several programs have enrolled in courses in the ARTC program. These programs include engineering, education, speech and hearing sciences, and health sciences, with the vast majority coming from the health sciences program. Given the similarities of the health sciences program and the ATA program during the first two years of a typical four-year program, we have collaborated the health sciences program to develop a major that is distinct and provides students with a clear and novel pathway to employment in the ATA professions. The Health Sciences leadership fully support the ATA program, which is noted in their letter of support (Appendix D).

Though several programs outside the School of Health and Rehabilitation Sciences address assistive technology as a component of their programs (e.g., engineering capstone projects), none explicitly focus on the intersection of technology, accessibility, and disability throughout their programs. Therefore, the ATA program is uniquely positioned to support the educational goals of students who are interested in applying technology to meet the needs of individuals with disabilities. Letters of concurrence were provided from the Departments of Biomedical Engineering, English (Disability Studies), Mechanical and Aeronautical Engineering, Special Education, and Speech and Hearing Sciences (Appendix E).

e. Previous Program Submission and Approval History:

None

f. Minimum Admission Requirements and Qualifications:

A minimum 2.50 cumulative GPA is required for all coursework taken at any accredited institution. Before starting the program, all prerequisite courses or equivalents must be completed with a C- or higher.

g. Student Recruitment and Enrollment Sources:

The proposed ATA program will have the potential to enroll students from several sources, including current Ohio State students who may find the program to be the best fit for their interests and goals, as well as high school students who are interested in the intersection of technology and disability. Initially, the largest number of students in the program may be current Ohio State campus students who are enrolled in other major programs but want to transfer into the ATA program. Based on the number of students who are currently enrolled in the ARTC program, or have completed the program, there is a significant demand for this type of education. Since the ARTC Program was formally launched in 2020, 135 undergraduate students and 53 graduate students have been admitted into the program, while 104 undergraduate students and 36 graduate students have received the certification (SU20-SP25) (Figure 1). Furthermore, we have taught 1424 students (1107 UG/ 317 Grad) in the ARTC courses (AU19-SU25) (Figure 2). We anticipate that the initial cohort of ATA students will come from the UG pre-HS program, which has seen explosive growth over the past 5 years. Following the initial cohort, we anticipate that an additional cohort of UG students will come from high school students who are interested in technology and disability but are not interested in completing an engineering degree. Finally, we may enroll a small number of students who transfer to the ATA program from other majors, colleges or universities.

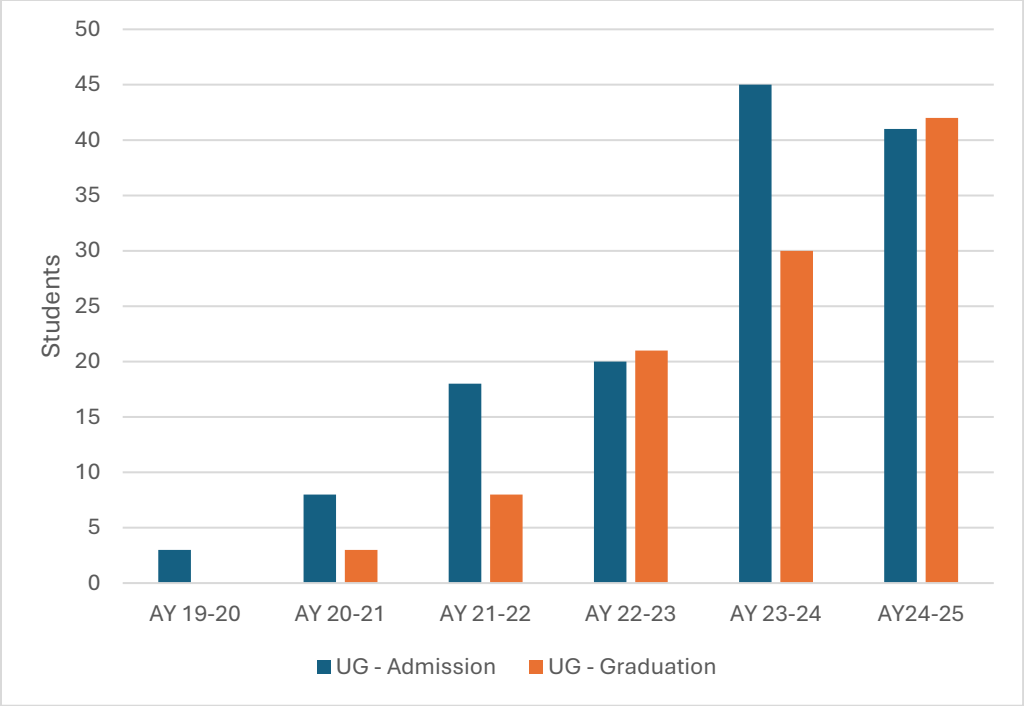

Figure 1: Undergraduate admissions and graduations for the ARTC program

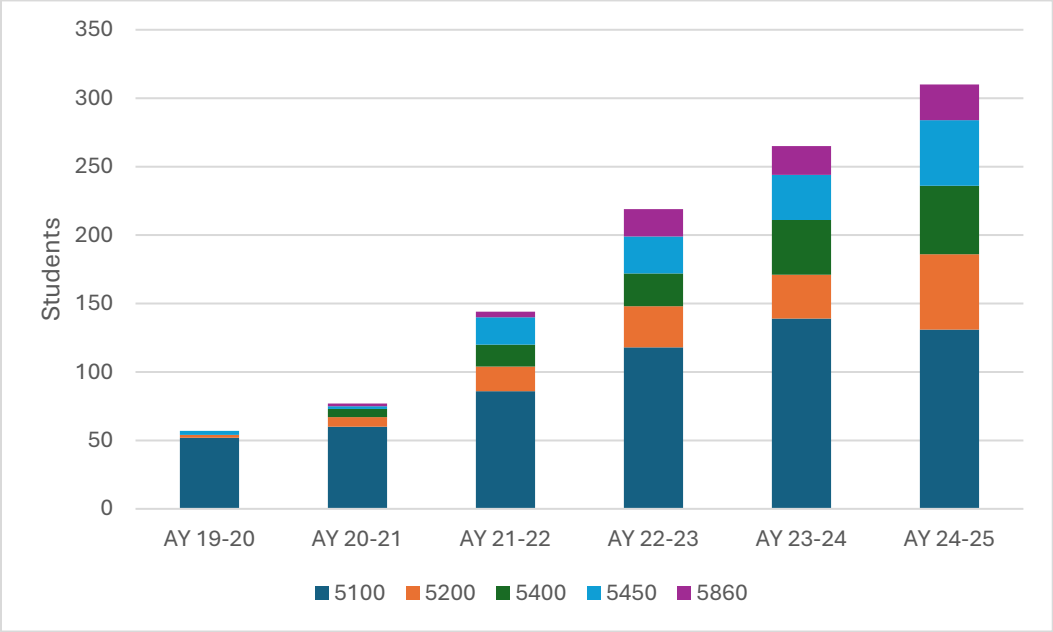

Figure 2: Undergraduate students completing each course in the ARTC program

Assistive Technology and Accessibility Program Curriculum

The curricular requirements are detailed to provide a comprehensive overview of the program.

- The curricular guide enumerates the general education requirements, prerequisites, major courses, minor or certificate expectations, and suggested program electives.
- The prerequisites for required courses are enumerated, and the rationale for these prerequisites is clearly outlined. These elements represent critical variables to consider when reviewing the structure and design of the program.
- Existing ART certificate courses will be incorporated into the new degree program. Descriptions of both the existing courses and the newly proposed courses are provided.

a. Curricular Guide:

The Curricular Guide presents the complete program structure, including general education (GE) requirements, college/degree requirements (prerequisites), major coursework, minor or certificate expectations, and program electives. The table provides a clear and transparent overview of how each component contributes to meeting the overall degree requirements. Some prerequisite courses in this program also fulfill GE requirements. In alignment with university policy and guidance from curriculum planning, credit hours for these overlapping courses are applied toward the GE Foundation requirements and are not listed again in the prerequisite totals. Although these courses are required as prerequisites to meet program expectations and accreditation standards, they are addressed within the GE Foundation totals to prevent inflating the overall credit expectations. This approach ensures the curriculum meets both accreditation requirements and the university's 120-credit graduation standard, while maintaining an efficient degree structure.

Curricular Guide

General Education Requirements

Requirement	Course Title/Options	Credit Hours
GE Launch Seminar		1
Foundations: Writing and Information Literacy a	English 1110.01*	3
Foundations: Mathematical & Quantitative Reasoning/Data Analysis	Minimum of Math 1148*	4

Foundations: Literary, Visual and Performing Arts	Student Choice	3
Foundations: Historical & Cultural Studies a	Student Choice	3
Foundations: Natural Science a	BIO 1101*	4
Foundations: Social & Behavioral Sciences	PSYCH 1100*	3
Foundations: Race, Ethnic and Gender Diversity	SOCIOL 1102*	3
Theme: Citizenship for a Diverse & Just World	Student Choice	4-6
Theme: Student Choice	Student Choice and HTHRHSC 3400	4-6
GE Reflection	HTHRHSC 4001	1
Total General Education Credit Hours:		**33 - 37**

An asterisk (*) indicates that this General Education requirement can also be satisfied by a course required within the major or college prerequisites.

Prerequisites

Course	Course Title	Credit Hours
ENGL 1110.01	First-Year English Composition *(Writing and Information Literacy)*	3
STAT 1350	Elementary Statistics	3
BIO 1101	Introductory Biology *(Natural Science)*	4
PSYCH 1100	Introduction to Psychology *(Social & Behavioral Sciences)*	3
SOCIOL 1102	Social Foundations of Race, Ethnicity, Gender, and Social Class *(Race, Ethnic, and Gender Diversity)*	3
ANATOMY 2300 or 3300	Human Anatomy (4) or Advanced Human Anatomy for Undergraduates (5)	4 - 5
EEOB 2520 or PHYSIO 3200	Human Physiology	3 - 5

HDFS 2400 or HTHRHSC 3500	Life Span Human Development or Critical Phases in Life	3
HTHRHSC 2500	Medical Terminology for Health Professionals	3
Total Prerequisite Requirements:		**16 - 19**

- As previously noted, some prerequisite courses in this program also fulfill GE requirements. In alignment with university policy and guidance from curriculum planning, credit hours for these overlapping courses are applied toward the GE Foundation requirements and are not listed again in the prerequisite totals.
- Courses listed with parentheses indicate they also satisfy a General Education requirement

Major Coursework

Course	Course Title	Credit Hours
HTHRHSC 5500	Introduction to Pathophysiology	4
HTHRHSC 5900	Health Sciences Research: Interpretations and Applications	3
HTHRHSC 5100	Introduction to Assistive Technology	3
HTHRHSC 5200	Assistive Technology for Seating & Mobility	3
HTHRHSC 5400	Computer, Communication, and Control Technologies for Individuals with Disabilities	3
HTHRHSC 5450	Assistive Technology for Sports & Recreation	3
HTHRHSC /SPHRNG 5860	Augmentative & Alternative Communication for the Multidisciplinary Professional	3
HTHRHSC ----	Assistive Technology for Cognition and Mental Health	3
HTHRHSC ----	Digital Accessibility	3
HTHRHSC ----	Accessibility and Inclusive Design	3
HTHRHSC ----	Assistive Technology for Transportation	3
HTHRHSC ----	Assistive Technology for Children & Adolescents	3
HTHRHSC ----	Introduction to Assistive Technology Design, Development, & Testing	3
HTHRHSC ----	Accessibility in Video Games	3
HTHRHSC ----	Assistive Technology Policy, Advocacy, Entrepreneurship	3
HTHRHSC ----	Applied Artificial Intelligence in Assistive Technology	3

HTHRHSC ----	Assistive Technology Capstone	3
Total Major Coursework Requirements:		**55**

Minor or Certificate Requirement

Students pursuing the Assistive Technology and Accessibility degree are required to complete either a minor or a certificate program as part of their degree requirements. This additional area of study provides complementary skills and broadens professional opportunities in related fields. Possible fully online certificate programs include the American Sign Language Elementary-Level Teaching Certificate, the Health Care Revenue and Data Analytics Certificate, and the Usability and User Experience in Health Care Certificate.

Total Minor or Certificate Requirements:	**12**

Electives

The following courses are offered as possible electives: HTHRHSC 4000: Application of Ethical Decision Making in Health Care; HTHRHSC 4200: Analytical Scientific Writing in Health and Rehabilitation Sciences; HTHRHSC 4300: Contemporary Topics in Health and Society; HTHRHSC 4320: Clinical Interviewing and Risk Assessment in Healthcare (in-person only); HTHRHSC 4370: Community and Policy Influence in Health Care; HTHRHSC 4400: Individual Differences in Patient/Client Populations; HTHRHSC 4590: Global Health Inequalities: An Introductory Course; and ESSPED 5150: Introduction to Assistive Technologies to Support Students with Disabilities in Classrooms. All courses are offered in a distance learning instructional mode, unless otherwise noted.

Course	Course Title	Credit Hours
	Electives	**4**
Total:		4

Requirement Category	Credit Hours
General Education Requirements	33-37 Hours
College/Degree Requirements (Prerequisites)	16-19 Hours
Major Courses	55 Hours
Minor or Certificate Expectations	12 Hours
Electives	4 Hours
Total Degree Requirement Hours	**120- 127**

b. Prerequisite Course Descriptions and Rationales:

The following table provides an overview of the prerequisite courses required for admission to the Assistive Technology and Accessibility (ATA) program. Each course is carefully selected to ensure students enter the program with a strong interdisciplinary foundation that supports their future success. These prerequisites build essential skills in writing, research, statistical analysis, biological and physiological understanding, as well as psychological and sociological awareness. Each description is accompanied by a rationale that explains how the course content aligns with the academic and professional competencies necessary for effective practice in assistive technology. Together, these courses prepare students to approach assistive technology with both technical proficiency and a deep understanding of human experience.

Course	Description	Rationale
ENGL 1110	Focuses on developing academic writing skills through original research projects, including analyzing and synthesizing sources, developing arguments, and communicating clearly for various audiences.	Builds foundational writing skills critical for creating accessible documentation, reports, and communication in assistive technology.
STAT 1350	Introduction to probability and statistics, including experiments, sampling, data analysis, and interpretation.	Equips students with the statistical literacy needed for data-driven decision making, needs assessments, and evaluation of assistive technology programs.
BIO 1101	Basic biology principles including cellular function, genetics, reproduction, evolution, and ecology.	Provides foundational biological knowledge necessary to understand human systems relevant to assistive technology.

Course	Description	Rationale
PSYCH 1100	Introduction to behavior and mental processes, including perception, learning, motivation, development, and social interaction.	Required by accreditation standards to ensure understanding of human cognition and behavior for effective assistive technology design and implementation.
SOCIOL 1102	Introduction to sociology covering social structures, cultural diversity, and social participation.	Meets accreditation standards by providing insight into social contexts affecting technology use and participation.
EEOB 2520 or Physio 3200	Survey of human physiology (EEOB 2520) or comprehensive study of organ systems (Physio 3200).	Required by accreditation standards to understand physiology relevant to assistive technology application; Physio 3200 is optional for graduate preparation.
ANATOMY 2300 or 3300	Study of human anatomy; 3300 requires Biology 1101.	Required to understand anatomical structures critical for assistive technology design and user safety.
HDFS 2400 or HTHRHSC 3500	Life Span Human Development or Critical Phases in Life	HDFS 2400 or HTHRHSC 3500 was selected to address the accreditation standard requiring knowledge of human development through the lifespan, including typical and atypical development, developmental stages, and the impact of assistive technology across the life cycle.

Course	Description	Rationale
HTHRHSC 2500	Medical Terminology	HTHRHSC 2500 Medical Terminology was selected to support accreditation standards requiring knowledge of human anatomy and physiology, fundamental functional abilities, capacities, limitations, and interventional services. Proficiency in medical terminology is essential for assistive technology professionals to accurately interpret clinical records, understand diagnoses and interventional plans, and effectively collaborate with healthcare teams as required by the standards.

c. Major Courses: Integration of Existing Courses:

The new degree curriculum will integrate core courses from the existing ARTC program. This approach ensures that the ARTC program remains available while providing students with diverse pathways to achieve their academic and career goals in assistive technology. These core courses, essential to foundational knowledge and practice, include

- **HTHRHSC 5100 - Introduction to Assistive Technology**
  This course introduces students to the development and implementation of a wide range of assistive technology devices and services, covering various areas such as computer access, alternative and augmentative communication, seating and mobility, low vision technology, cognitive devices, and home automation.
- **HTHRHSC 5200 - Assistive Technology for Seating and Mobility**
  Focused on mobility and seating systems, this course teaches students to develop and implement devices such as manual and power wheelchairs, scooters, and power add-ons, as well as custom seating solutions like seat cushions, back supports, and postural supports.

- **HTHRHSC 5400 - Computers, Communication and Control for Individuals with Disabilities**
  This course addresses assistive technology devices and services for communication, computer access, and environmental control. Students learn about control interfaces, electronic aids for daily living, zero-effort technologies, educational tools, and cutting-edge innovations like the Internet of Things.
- **HTHRHSC 5450 - Assistive Technology for Sports and Recreation**
  Students gain expertise in developing assistive technology solutions for adapted sports and recreation. The course covers Paralympic sports, video games, and other recreational activities, applying principles of anthropometrics, biomechanics, and ergonomics to enhance participation.
- **HTHRHSC 5860 - Augmentative and Alternative Communication for the Multidisciplinary Professional**
  This course provides students with in-depth knowledge of AAC modes, procurement processes, funding mechanisms, and intervention strategies for individuals with complex communication needs across various diagnoses.

In addition to the ARTC courses, the major courses also include courses in the health sciences major that provide foundational knowledge and skills.

- **HTHRHSC 5500 - Introduction to Pathophysiology**
  This course builds critical understanding of disease processes that influence assistive technology selection and use.
- **HTHRHSC 5900 - Health Sciences Research: Interpretations and Applications**
  This course develops students' skills in interpreting and applying research to support evidence-based practice. These courses strengthen the major by enhancing students' clinical reasoning, research literacy, and ability to make informed, evidence-based decisions in assistive technology and accessibility.

d. Newly Proposed Courses:

The proposed courses build on the existing courses to meet the CoA-RATE accreditation standards, prepare students for the RESNA ATP and SMS certification exams, and prepare students for employment in the fields of assistive technology and accessibility.

- **Assistive Technology for Cognition and Mental Health:** Examines how assistive technology can be used to support participation, enhance daily functioning, and promote self-management for individuals experiencing mental health conditions and cognitive challenges. Focus includes technologies that foster emotional regulation, attention, memory, and

executive functioning across everyday settings. Students will explore a variety of tools and strategies that can supplement personal abilities and provide alternative ways to complete tasks. Emphasis is placed on user-centered assessment, ethical use, and selecting technology that aligns with individual goals and preferences to promote autonomy and meaningful engagement.

- **Digital Accessibility:** Examines the principles of digital accessibility and the ways assistive technology supports individuals with disabilities in navigating digital environments. Emphasizes design strategies that promote accessible digital spaces and explores how individuals who use assistive technology interact with these platforms. Highlights the importance of interprofessional collaboration in the development and implementation of accessible digital content.
- **Assistive Technology for Transportation:** Focuses on the use of assistive technology to support safe and accessible transportation for individuals with disabilities. Topics include wheelchair transportation, occupant restraint systems, and device securement systems, as well as mainstream transportation options such as automobiles, buses, trains, and planes. Emerging technologies, including wayfinding software, mobile applications, and autonomous vehicles, are also explored. Emphasis is placed on applying both assistive and consumer technologies to promote mobility and participation in community life.
- **Assistive Technology for Children and Adolescents:** Explores assistive technology solutions that support the daily activities, play, learning, social engagement, and growing independence of children and adolescents with disabilities. Topics include augmentative and alternative communication, adaptive mobility, environmental modifications, and technology that promotes access to recreation, education, and peer relationships. Emphasis is placed on assessing developmental and educational needs, collaborating with families and educators, and designing strategies that align with individualized education program (IEP) goals. The course also addresses assistive technology considerations during key life transitions, including the shift to adulthood. Practical experience is provided through case-based learning to prepare learners to implement inclusive and meaningful assistive technology solutions.
- **Accessibility and Inclusive Design:** Explores principles of universal and inclusive design and environmental accessibility, including physical and digital modifications to support independence and participation. Topics include compliance with the Americans with Disabilities Act (ADA) standards, accessible transportation, and community integration strategies. Prepares students to assess barriers and implement solutions collaboratively, emphasizing client-centered approaches and practical problem-solving.
- **Introduction to Assistive Technology Design, Development and Testing:** Introduces the user-centered design process and engineering tools essential for

developing assistive technology solutions for everyday use. Emphasis is placed on assessing clients' functional and assistive technology needs, proposing design and testing plans, and developing practical solutions through iterative feasibility and usability testing with client input. Knowledge and skills are applied in a design project that focuses on creating assistive technology for real-world use.

- **Accessibility in Video Games and Interactive Media:** Explores accessible design and adaptive gaming technologies, including hardware, software, and virtual environments during product design and use. Students will assess technologies and user needs, ideate and design solutions, and develop implementation plans for accessibility. The curriculum emphasizes practical problem-solving and collaboration, addressing barriers to engagement and usability. Students will collaborate with other disciplines, industry professionals, and community members to ideate, create, and disseminate novel game and interactive media designs, culminating in a final project.
- **Assistive Technology Policy, Advocacy, and Entrepreneurship:** Examines key skills and strategies needed to advance assistive technology through program development, policy engagement, advocacy efforts, and entrepreneurial initiatives. Topics include program and budget management, resource evaluation, stakeholder communication, and legal and ethical considerations to ensure equitable and non-discriminatory practices. Emphasis is placed on assessing program outcomes, promoting sustainable solutions, and fostering innovation in assistive technology. Practical applications and case studies provide real-world context to support effective leadership and meaningful impact in the field.
- **Applied Artificial Intelligence in Assistive Technology:** Examines how artificial intelligence can serve as assistive technology to support individuals with diverse abilities. Focuses on how AI can enhance access, support independence, and promote participation in daily activities, learning, work, and community life. Emphasizes ethical considerations, inclusive design principles, and practical application. Through case studies, hands-on projects, and critical discussions, students will develop the skills to design, apply, and evaluate AI-powered solutions for real-world challenges.
- **Assistive Technology Capstone:** As the culminating element of the Assistive Technology and Accessibility program, the capstone provides students with an immersive opportunity to demonstrate and refine their expertise in practical or simulated settings. Students may select from three pathways—fieldwork, internship, or a project-based assessment—each designed to align with their career aspirations and professional interests. Guided by faculty advisors, the capstone is tailored to foster individualized growth while meeting accreditation standards across six key domains: needs assessment, intervention planning, implementation, evaluation, professional conduct, and evidence-based practice. This experience emphasizes academic rigor and equips students with the skills for real-world impact.

e. Prerequisite Overview for the Assistive Technology and Accessibility Program:

The purpose of this section is to provide an understanding of the progression of the ATA Program curriculum. The overview outlines how prerequisites are structured to support the logical sequencing of courses.

Course	**Prerequisites**
ENGL 1110.01 (First-Year English Composition)	English Placement Level 4 or successful completion of developmental coursework
MATH 1148 (College Algebra)	Math 1075 (C- or higher) or Math Placement Level N
STAT 1350 (Elementary Statistics)	Math 1050 or Math Placement Level S
EEOB 2520 (Human Physiology)	One year of high school biology or a college-level biology course
PHYSIO 3200 (Human Physiology)	3 semester hours of biology (Bio 1101)
HTHRHSC 3500 (Critical Phases in Life)	PSYCH 1100
HTHRHSC 4001 (GE Reflection)	Senior standing and completion of GE Theme requirements
HTHRHSC 5500 (Introduction to Pathophysiology)	ANATOMY 2300 or 3300 AND EEOB 2520 or PHYSIO 3200
HTHRHSC 5900 (Health Sciences Research: Interpretations and Applications)	STAT 1350 or equivalent statistics course
HTHRHSC ---- Assistive Technology Capstone	The prerequisites for this course include HTHRHSC 5100 (Introduction to Assistive Technology), HTHRHSC 5200 (Assistive Technology for Seating and Mobility), HTHRHSC 5400 (Computers, Communication and Control for Individuals with Disabilities), HTHRHSC 5450 (Assistive Technology for Sports and Recreation), HTHRHSC 5860 (Augmentative and Alternative Communication for the Multidisciplinary Professional), Introduction to Assistive Technology Design Development, and Testing (newly proposed course), along with senior status.

f. Semester-by-Semester Program Overview:

The table below presents a semester-by-semester sample program to guide students through the recommended course sequence for the Assistive Technology and Accessibility (ATA) Program. This sample plan demonstrates how students can

complete required courses in a timely and logical progression, meeting all prerequisite requirements along the way. It is provided as a suggested pathway and may be adapted based on individual advising and course availability.

Semester-by-Semester Program Overview

Year 1			
Autumn		**Spring**	
MATH 1148 College Algebra	4	GE Launch Seminar	1
Foundations: Historical & Culture Studies (student choice)	3	ENGL 1110.01 First-Year English Composition	3
BIO 1101 Introductory Biology	4	STATS 1350	3
PSYCH 1100 (Introduction to Psychology)	3	ANATOMY 2300 or 3300 Human Anatomy (4) or Advanced Human Anatomy for Undergraduates (5)	4-5
HTHRHSC 2500 Medical Terminology for Health Professionals	3	Theme: Citizenship for a Diverse & Just World	4
	17		**15-16**

Year 2			
Autumn		**Spring**	
SOCIOL 1102 Social Foundations of Race, Ethnicity, Gender, and Social Class	3	HTHRHSC 5500 Pathophysiology	3
EEOB 2520 Human Physiology (3) or PHYSIO 3200 (5)	3	Theme: Student Choice	3
HFDS 2400 Lifespan Human Development or HTHRHSC 3500 Critical Phases in Life	3	Foundation: Literary, Visual and Performing Arts (Student Choice)	3
HTHRHSC 3400 Health Promotion & Disease Prevention	3	Minor or Certificate Course	3
Elective Course	3	Elective Course	4
	15		**16**

Year 3			
Autumn		**Spring**	
HTHRHSC 5100 Introduction to Assistive Technology	3	HTHRHSC 5200 Assistive Technology for Seating & Mobility	3
HTHRHSC 5400 Computers, Communication & Control Technologies	3	HTHRHSC 5450 Assistive Technology for Sports & Recreation	3
HTHRHSC 5900 Health Sciences Research: Interpretation & Application	3	HTHRHSC 5860 Augmentative and Alternate Communication for the Multidisciplinary Professional	3
HTHRHSC ---- Digital Accessibility	3	HTHRHSC ---- Assistive Technology for Cognition & Mental Health	3
HTHRHSC ---- Accessibility and Inclusive Design	3	HTHRHSC Minor or Certificate Course	3
	15		15

Year 4			
Autumn		**Spring**	
HTHRHSC ---- Assistive Technology for Transportation	3	HTHRHSC ---- Assistive Technology Policy, Advocacy, and Entrepreneurship	3
HTHRHSC ---- Assistive Technology for Children & Adolescents	3	HTHRHSC ---- Applied Artificial Intelligence in Assistive Technology	3
HTHRHSC ---- Introduction to Assistive Technology Design, Development, and Testing	3	HTHRHSC ---- Assistive Technology Capstone	3
HTHRHSC ---- Accessibility in Video Games	3	Minor or Certificate Course	3
Minor or Certificate Course	3	HTHRHSC 4001	1
	15		**13**

g. Required In-Person Courses:

Students must complete either EEOB 2520 Human Physiology or PHYSIO 3200 Human Physiology to meet accreditation standards requiring a foundational understanding of human physiology relevant to assistive technology application. PHYSIO 3200 is also an optional pathway for students preparing for graduate-level study.

Anatomy is required to ensure students gain essential knowledge of anatomical structures critical for assistive technology design and user safety. ANATOMY 3300 Advanced Human Anatomy requires completion of Biology 1101 as a prerequisite.

Student Enrollment

Over the past four years we have admitted 31 undergraduate students on average to the ARTC program, with over 40 students over the past two years. Furthermore, over 1100 UG and 300 Grad students have completed courses in the ARTC program. Therefore, there is a solid foundation of student interest in assistive technology and accessibility. Based on these numbers we anticipate the following enrollment patterns.

Year	2026	2027	2028	2029	2030	2031
1	15	20	30	30	30	30
2	0	15	20	30	30	30
3	0	0	15	20	30	30
4	0	0	0	15	20	30
Total	15	35	65	95	110	120

Accreditation:

We intend to pursue accreditation through the Commission on Accreditation of Allied Health Education Programs (CAAHEP). This accreditation will be granted based on the recommendation of the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), through its Committee on Accreditation for Rehabilitation Engineering and Assistive Technology Education (CoA-RATE). We will initiate the accreditation process in autumn of 2027.

Faculty

The ATA major will be housed in the School of Health and Rehabilitation Sciences, Occupational Therapy Division. We currently have six instructors with experience teaching assistive technology courses in the Occupational Therapy Division who will teach the major coursework. The prerequisite courses currently exist and will be taught by existing faculty. Faculty in the Occupational Therapy Division and the Speech and Hearing Sciences Department will teach the major coursework. We will leverage external content experts to teach courses not currently covered by current faculty. The OT Divisioin faculty have a broad network of local and national content experts with experience teaching. The existing faculty will leverage their network to fill open teaching positions.

Current Faculty

Name	Area of Expertise	Full/Part Time	Course
Anderson, Sarah	e-gaming, virtual reality, digital and physical accessibility	Full	Accessibility in Video Games and Interactive Media Accessibility and Inclusive Design
Berner, Theresa	Assistive technology, seating and wheeled mobility, adapted sports and recreation	Part Time	Introduction to Assistive Technology Assistive Technology for Seating and Wheeled Mobility
DiGiovine, Carmen	Assistive technology, rehabilitation engineering	Full	Assistive Technology for Sports and Recreation
Lemmon, Van	Assistive technology for pediatrics and school age students, business and entrepreneurship	Full	Assistive Technology Policy, Advocacy, and Entrepreneurship Assistive Technology for Children and Adolescents Computers, Communication and Control for Individuals with Disabilities
Mhatre, Anand	Assistive technology, rehabilitation engineering	Full	Assistive Technology Capstone Introduction to Assistive Technology Design, Development, and Testing
Sonntag, Amy	Augmentative and Alternative Communication	Full	Augmentative and Alternative Communication (AAC) for Multidisciplinary Professionals

Proposed Faculty

Name	Area of Expertise	Full / Part Time	Course
TBD	Transportation	Part Time	Assistive Technology for Transportation
TBD	Digital Accessibility	Part Time	Digital Accessibility
TBD	Assistive Technology for Cognition and Mental Health	Part Time	Assistive Technology for Cognition and Mental Health
TBD	Artificial Intelligence and Assistive Technolgoy	Part Time	Applied Artificial Intelligence for Assistive Technology

Program Description

The Assistive Technology and Accessibility (ATA) Program is an innovative undergraduate major that prepares students for careers focused on advancing accessibility, inclusion, and independent living for individuals with disabilities. The program equips students with the knowledge and skills to develop, evaluate, and apply assistive technology solutions across diverse settings, including healthcare, education, product design, and public policy. The curriculum is interdisciplinary and fully online, with the exception of select in-person pre-requisite science courses. Students gain expertise in user-centered design, digital accessibility, artificial intelligence, seating and mobility, augmentative communication, and inclusive recreation. Graduates will be well-positioned to pursue certification as Assistive Technology Professionals (ATPs) and lead accessibility initiatives in their future workplaces.

Program Costs and Funding

The ATA Program will be housed within the School of Health and Rehabilitation Sciences, Occupational Therapy Division. Funding for the program will be provided through the School's established budgeting process. The program will build upon the foundation created by the Assistive and Rehabilitative Technology Certificate (ARTC) program. The School has already begun supporting program development, as evidenced by the progress made in both the ARTC program and the Health Sciences undergraduate program. Once the ATA Program reaches full enrollment of approximately 120 students, it will generate sufficient resources to support necessary staff and instructors.

Facilities and Equipment Requirements

a. Facilities/Equipment Requirements:

The ATA program will be supported through the School of Health and Rehabilitation Sciences. The ATA program will leverage the educational technologies, instructional resources, and office space that are available through the School of Health and Rehabilitation Sciences. The educational technologies and instructional resources are available through the Drake Institute, Ohio State Online, and the COM FAME Office of Curriculum and Scholarship (OCS). The School of Health and Rehabilitation Sciences will provide office space for instructors.

b. University Resources:

The ATA program has an MOU with OSO for the maintenance of existing courses and the development of new courses. In addition, instructors will leverage existing resources through the COM FAME OCS and the Drake Institute. These resources include, but are not limited to, instructional designers, education technologist and course development technology (e.g., the Digital Union Recording Studio, the Education Technology Incubator, and the HRS simulation lab). The ATA program will also leverage online textbooks, journals, and multimedia through the University Library. Given that the School in general, and the ARTC program in particular, already has an excellent working relationship with OSO, FAME OCS, Drake Institute and Prior Library, we do not anticipate that the new program will have a significant impact on existing programs.

c. Classrooms:

The ATA program is an online program, therefore, we don't need additional classrooms. We will leverage existing laboratory (e.g., simulation lab, ETI) and clinical spaces (e.g., Assistive Technology Center, Nisonger Smart Home Discovery Place) for the development of course content.

d. Laboratory, Studio and Other Special Facilities:

The ATA program is an online program, therefore we don't need laboratory space, studio space or other special facilities for student learning.

e. Office Space:

The school will provide office space for new faculty in Atwell Hall or Graves Hall. If instructor space doesn't exist, the School will work with other departments to identify spaces. New full-time faculty will get office space per OSU policy. Part-time faculty will use hoteling space within Atwell Hall, Graves Hall, or the Interdisciplinary Health Sciences Center (IHSC).

f. Special Space Requirements:

The ATA program does not require special space that is not already in existence.

References

AT Scale. (2018). *AT2030: Life-changing assistive technology for all*. Global Disability Innovation Hub. https://at2030.org

Basu, A., Petropoulakis, L., Caterina, G., & Soraghan, J. (2018). Assistive technology evolving as an intelligent system. In H. Das, L. M. C. Jain, & S. C. Satapathy (Eds.), *New trends in computational vision and bio-inspired computing* (pp. 305–314). Springer. https://doi.org/10.1007/978-3-030-41862-5_27

MacLachlan, M., Banes, D., Bell, D., Borg, J., Donnelly, B., Fembek, M., Ghosh, R., Gowran, R., Hannay, E., Hiscock, D., Hoogerwerf, E., Howe, T., Kohler, F., Layton, N., Long, S., Mannan, H., Mji, G., Ongolo, T., Perry, K., ... Hooks, H. (2018). Assistive technology policy: A position paper from the first Global Research, Innovation, and Education on Assistive Technology (GREAT) summit. *Disability and Rehabilitation: Assistive Technology, 13*(5), 454–466. https://doi.org/10.1080/17483107.2018.1468496

Manship, S., Hatzidimitriadou, E., Moore, J., Stein, M., Towse, D., & Smith, R. (2023). The experiences and perceptions of health-care professionals regarding assistive technology training: A systematic review. *Assistive Technology, 36*(2), 123–146. https://doi.org/10.1080/10400435.2023.2219294

Nguyen, G., Colin, B., & Lemoult, D. (2015). Implementing best evidence-based practice into ambient assisted living solutions: From user outcome research to best social practices. In M. Mokhtari, B. Abdulrazak, H. Aloulou, B. Pino, & H. Pigot (Eds.), *New perspectives in ambient assisted living* (pp. [page range]). CRC Press. https://doi.org/10.1201/b18520-7

Layton, N., Smith, R., & Smith, E. (2022). Global outcomes of assistive technology: What we measure, we can improve. *Assistive Technology, 34*(4), 673–673. https://doi.org/10.1080/10400435.2022.2144690

Smith, E., Gowran, R., Mannan, H., Donnelly, B., Alvarez, L., Bell, D., Contepomi, S., Wegner, L., Hoogerwerf, E., Howe, T., Jan, Y., Kagwiza, J., Layton, N., Ledgerd, R., Maclachlan, M., Oggero, G., Pettersson, C., Pousada, T., Scheffler, E., & Wu, S. (2018). Enabling appropriate personnel skill-mix for progressive realization of equitable access to assistive technology. *Disability and Rehabilitation: Assistive Technology, 13*(5), 445–453. https://doi.org/10.1080/17483107.2018.1470683

United Nations. (2006). *Convention on the rights of persons with disabilities*. https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html

World Health Assembly. (2018). *Improving access to assistive technology (Resolution WHA71.8)*. World Health Organization. https://apps.who.int/gb/ebwha/pdf_files/WHA71/A71_R8-en.pdf

World Health Organization & United Nations Children's Fund. (2022). *Global report on assistive technology*. World Health Organization. https://www.who.int/publications/i/item/9789240049451

World Health Organization. (2020). *WHO's GATE initiative: Global cooperation on assistive technology*. World Health Organization. https://www.who.int/initiatives/gate

Appendices

Appendix A – School Director Letter of Support

020 – Appendix A - ATA UG Major – LoS – Oñate – Signed.pdf

Appendix B – Industry Letters of Support

050 - Appendix B - ATA UG Major - LoS - ADED - Endorsement.pdf
030 - Appendix B - ATIA Letter - OSU ATA.pdf
032 - Appendix B - Tacca_SupportLetter_Battelle.pdf
034 - Appendix B - ATA UG Major - LoS - CTF - TK.pdf
036 - Appendix B - Letter of Support - Aviv Elor _ OSU AX Degree.pdf
038 - Appendix B - ATA UG Major - iNRRTS.pdf
040 - Appendix B - Letter of Support for Assistive Technology and Accessibility Degree_MM.pdf
042 - Appendix B - Letter of Support_Microsoft_OSU Bachelor's Degree in Assistive Technology and Accessibility.pdf
044 - Appendix B - ATA The Ohio State Unversity ATA program signed 8-3-2025.pdf
046 - Appendix B - Letter of Support - NMEDA - ATA Major.pdf
048 - Appendix B - ATA UG Major_LOS_RESNA_FINAL.pdf

Appendix C – Ohio State Online Market Analysis

060 - Appendix C - Market_Assessment_HRS_BS_ART.pdf

Appendix D – Health Sciences Program Letter of Support

070 - Appendix D - LOS Carmen ATA major - OSU HS Program.pdf

Appendix E – Letters of Concurrence

080 - Appendix E - Assistive Technology and Accessibility undergraduate minor - Concurrence request - Jennifer Higgenbotham - 2205_07_29.pdf
082 - Appendix E - Assistive Technology and Accessibility Undergraduate Program – Request for Concurrence - Biomedical Engineering - Samir Ghadiali - 2025_07_23.pdf
084 - Appendix E - Concurrence_Form - ATA Major - Speech and Hearing Sciences.pdf
086 - Appendix E - Concurrence_Form - ATA Major - Educational Studies - Signed.pdf
088 - Appendix E - Proposal for Assistive Technology and Accessibility Undergraduate Major - Concurrence - Mechanical Engineering - Rob Siston - 2025_07_03.pdf