

## Lake Campus AAS - Agriculture

This proposal changes the ATS (Associate of Technical Study) Agriculture concentration to an AAS (Associate of Applied Science) Agriculture degree. Therefore, in order to make this change, we need to add the AAS Agriculture degree and terminate the ATS Ag concentration degree.

While this associate degree was first introduced as a concentration in the ATS degree, it better aligns with an AAS degree. The definition of the two degrees from Ohio Department of Higher Education follows.

The ATS degrees are awarded for successful completion of a planned program of study designed to respond to the need for specialized technical education. There are two types that can either be drawn from two or more technical programs currently offered by the college that would not be addressed by an existing program alone or courses completed at another institution (ODHE definition <https://transfercredit.ohio.gov/educational-partners/educational-partner-initiatives/articulation-transfer-policy-policy/articulation-transfer-policy-definitions> )

The AAS degrees are awarded in recognition of successful completion of career technical education programs and prepare students for *immediate employment upon graduation*. The curricula for applied associate degree programs are described in terms of technical and non-technical studies. Non-technical studies include general education and courses that serve as a base for the technical field. Non-technical studies, including general education and applied general education course, should make up at least 30 semester hours of the degree (ODHE definition <https://transfercredit.ohio.gov/educational-partners/educational-partner-initiatives/articulation-transfer-policy-policy/articulation-transfer-policy-definitions> ).

The Agriculture programs began at the Lake Campus in 2013. At that time, the associate degree was put in as a concentration of the ATS. We offer currently the ATS – Agriculture concentration and the BTAS (Bachelor of Technical and Applied Studies) – Agriculture concentration. Included in changing the ATS to an AAS, we modified coursework to better align with expectations from the Agriculture advisory board as well as articulation from other two-year institutions. The new courses include: Introduction to Agriculture and Industry Skills (1 credit gateway course), Soil Science and Survey, Agriculture Communication, Ruminant Livestock Management, Farm Business Management, Agriculture Internship Course.

The Associate of Applied Science degree in Agriculture is designed to prepare students for careers in the field of agriculture. Through study of animal science and agronomic concepts, students will gain a broad base of knowledge, applicable to all areas within the field. Students will learn to apply their knowledge to face real-world challenges and develop communication skills in written, oral, and digital outlets.

AAS graduates will be career ready, but can also seamlessly matriculate into the Agriculture concentration of the BTAS program.

**Bachelor of Science in Engineering Technology**  
**Wright State University**  
**Department of Biomedical, Industrial and Human Factors Engineering**  
**College of Engineering and Computer Science**

The Bachelor of Science in Engineering Technology program is developed to meet the demand in the Dayton region for graduates of engineering technology programs. The program aims to recruit the 100 or more engineering technology associate's degree graduates locally on an annual basis who go on to enter a bachelor's degree program. The program also potentially responds to the needs of graduates of the Community College of the Air Force. A significant portion of the program can be completed online to serve a non-traditional student population.

The Bachelor of Science in Engineering Technology program offers students an interdisciplinary foundation in mechanical, electrical, and industrial engineering and technology. With a strong emphasis on practical applications and real-world problem-solving, this program equips students with the skills and knowledge necessary to contribute effectively in a variety of engineering or other technical careers, such as automated manufacturing, quality control, product development and design, field service engineering, and systems engineering.

At the core of the program is a technical curriculum that covers a wide range of engineering and computer science topics. Students take courses in areas such as engineering statistics, circuits, programming, engineering project management, and data analysis, gaining an understanding of the theoretical bases of engineering technology.

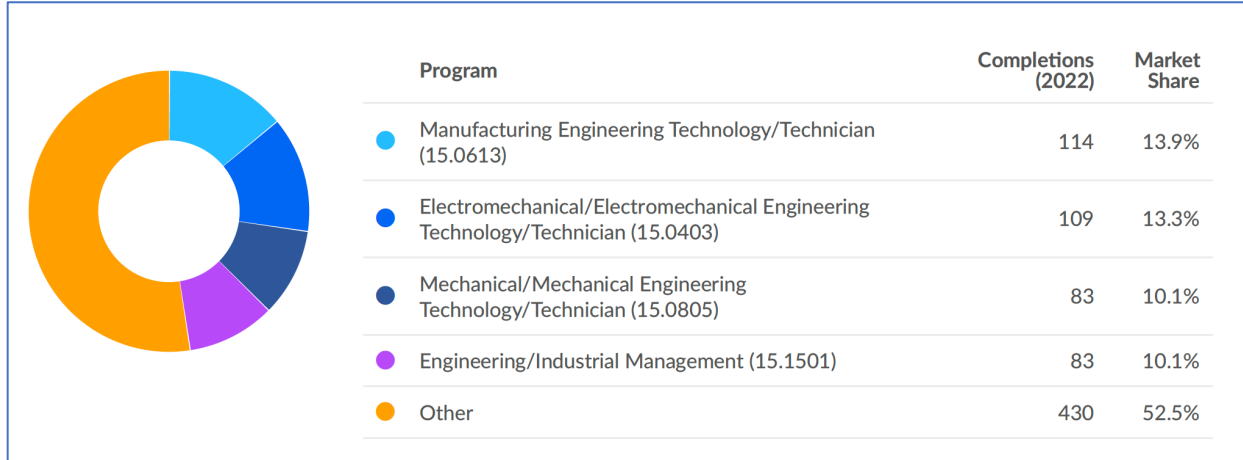
In addition to the technical core, students have the opportunity to specialize in one of two focus areas, industrial and systems engineering or electrical engineering. These focus areas offer students a tailored curriculum that explores the intricacies of modern engineering design skills within their chosen specialization, and culminates with a senior capstone project course.

The industrial and systems engineering focus area emphasizes the optimization of systems and processes, preparing students to tackle complex challenges in manufacturing, logistics, and supply chain management. Through courses in operations research, quality control, and systems analysis, students develop the analytical and problem-solving skills necessary to improve efficiency and productivity in industrial settings.

Alternatively, the electrical engineering focus area focuses on the design, analysis, and implementation of electrical systems and devices. From digital design to industrial controls, students explore the principles of electrical engineering through hands-on projects and laboratory experiments, gaining practical experience in circuit design, control systems, and digital signal processing.

Students also choose one of two minors, business analytics or computing and information technology. Each of these minors complement the technical core and focus area with additional skills and abilities that are relevant and desirable in today's job market and moving forward.

In the report run on the market share in the raider country by Dayton Development Coalition, there is a demand for engineering technology program and the job prospects for the region is compelling .



### Growth

193,184 2023 Jobs	195,963 2024 Jobs	2,779 Change (2023-2024)	1.4% % Change (2023-2024)
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### Target Occupations

193,184 Jobs (2023) 11% above National average	+1.4% % Change (2023-2024) Nation: +2.0%	\$29.38/hr \$61.1K/yr Median Earnings Nation: \$33.60/hr; \$69.9K/yr	19,043 Annual Openings
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**Bachelor of Science Degree in Exercise Science**  
**Wright State University**  
**Kinesiology and Health Department**  
**College of Health, Education, and Human Services**

The proposed new degree, Exercise Science BS, is meant to replace the existing Sports Science BSEd with a concentration in Health and Fitness. The curriculum will remain largely the same, but renaming and simplifying the degree will make it more marketable to a wider range of student interests (i.e., exercise is a more comprehensive concept than sports) and will put it in step with the majority of similar programs nationwide, both in terms of nomenclature and degree type (BS vs. BSEd). The focus of this program has always been broader than just sports, including instruction in fitness assessment and exercise prescription in a wide variety of contexts. Thus, the new name reflects this breadth, appealing to students who want to work in health, rehabilitation, and other settings, while still including elements of interest to students who wish to work in an athletic context. Projected conservative headcount for enrollment is about 55 full time students by 2028.

The Exercise Science program incorporates both classroom and supervised practical experiences to prepare undergraduate students with the knowledge, skills, and abilities to work as professionals in exercise, health, fitness and wellness fields. Candidates who complete this program will be eligible to apply for the ACSM Health and Fitness Instructor certification, the NSCA Certified Strength and Conditioning Specialist (CSCS) certification, or other similar professional certifications.

Entry-level professionals in these fields are skilled in evaluating health behaviors, risk factors, conducting fitness assessments, developing and implementing safe and effective exercise prescriptions, and motivating individuals to modify negative health habits and maintain positive lifestyle behaviors. Exercise science professionals can perform these activities in commercial, university, corporate, or community settings where their clients participate in health promotion, fitness, and sports performance activities.

Recognition of the comprehensive role of exercise in health promotion continues to grow, as do efforts to encourage exercise as part of daily health maintenance. There are numerous roles for graduates to work in various exercise-related fields, and this is only expected to increase in the future. Graduates will be able to work in a variety of positions falling into two main job categories as defined by the US Bureau of Labor Statistics. The following projections come from their data:

- Exercise Physiologists and related jobs: 16,500 jobs in 2022, 10% growth outlook for 2022-2032, growing much faster than average, 2023 median salary: \$54,860.
- Fitness Trainers/Instructors and related jobs: 329,500 jobs in 2022, 14% growth outlook for 2022-2032, growing much faster than average, 2023 median salary: \$46,480.

## Bachelor of Science Degree in Health Sciences

Wright State University  
Kinesiology and Health Department

The Health Sciences, BS, programs provide pathways to healthcare graduate programs, and are particularly well-suited to students interested in pursuing degrees related to neuromuscular, musculoskeletal, and sport and rehabilitation medicine. The program of study incorporates both classroom and supervised laboratory content, along with experiential learning, to prepare undergraduate students with the core knowledge, abilities, and skills to pursue an advanced healthcare degree.

The proposed new degree, Health Sciences, BS, is meant to replace the existing Sports Science BSEd with a concentration in Sports Medicine, for those students wishing to pursue graduate education in the health sciences, especially those interested in fields related to neuromuscular/musculoskeletal medicine. The curriculum will also be updated and diversified so that students choose one of five career-specific concentrations: Pre-Athletic Training, Pre-Occupational Therapy, Pre-Physician Assistant, Pre-Physical Therapy, and Pre-Sport and Rehabilitation Medicine (for students wishing to pursue an MD or DO and work as a physician or surgeon). Projected conservative headcount is about 160 full time students by 2027.

The new program title of Health Sciences, as well as the shift to a new BS degree, will make the program more marketable to a wider range of student interests, and will put it in step with similar programs nationwide. Moreover, creating career-specific concentrations will streamline student registration and graduation planning, and will help attract students by clearly identifying this program as meeting their specific educational needs in pursuit of careers in neuromuscular, musculoskeletal, and sports medicine contexts.

Depending on the concentration they choose, students completing one of the Health Science, BS, programs will be able to pursue graduate degrees in athletic training, occupational therapy, physician assistantship, physical therapy, or medicine. The following projections for work in each of these fields come from the US Bureau of Labor Statistics:

- Athletic Trainer: 33,800 jobs in 2022, 14% growth outlook for 2022-2032, growing much faster than average, 2023 median salary: \$57,930.
- Occupational Therapist: 139,600 jobs in 2022, 12% growth outlook for 2022-2032, growing much faster than average, 2023 median salary: \$96,370.
- Physician Assistant: 148,000 jobs in 2022, 27% growth outlook for 2022-2032, growing much faster than average, 2023 median salary: \$130,020.
- Physical Therapist: 246,800 jobs in 2022, 15% growth outlook for 2022-2032, growing much faster than average, 2023 median salary: \$99,710.
- Physician/Surgeon: 816,900 jobs in 2022, 3% growth outlook for 2022-2032, growing as fast as average, 2023 median salary: \$239,200.

## **Bachelor of Arts in Environmental Studies**

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### **Wright State University**

#### **College of Liberal Arts (in collaboration with the College of Science and Math)**

The Bachelor's Degree in Environmental Studies directly supports President Edward's three R's: Recruitment, Retention, and Relationships. Environmental policy and advocacy is an area of increasing importance: government agencies, municipalities, non-profit organizations, and for-profit corporations increasingly seek to employ individuals with excellent training in "soft skills," including written and oral communication, critical thinking, problem-solving, intercultural sensitivity, inclusive leadership, ethical reasoning, etc. within the context of decisions that will impact the environment. While Bachelor of Science degrees in Environmental Science are more commonly offered at our peer and aspirant institutions, there are fewer opportunities in our region for students who do not wish to pursue a traditional path in the hard sciences but are interested in careers related to the environment and sustainability. For example, both Northern Kentucky University and Miami University offer degree programs in Environmental Science but neither offer a BA in Environmental Studies. This is an excellent time for WSU to stake a claim in this market niche, since the program can be launched using existing faculty and building upon the strengths of both CoLA and CoSM. The degree has been designed for flexibility and to be appealing to first-year, transfer, adult, and veteran students.

The collaboration between CoLA and CoSM is also important as a retention initiative, because the BA in Environmental Studies provides an off-ramp to students who may be struggling with math/science requirements in the BS in Environmental Science or other degrees in CoSM. The Environmental Studies major is a flexible degree that provides students with a critical foundation in understanding scientific, human, and cultural factors of environmental systems and issues. Students pursue a cross-disciplinary or interdisciplinary approach to the study of the environment with core and elective courses in the College of Liberal Arts and the College of Science and Mathematics and with opportunities to incorporate courses from other colleges as well. Students also have the option to embed a certificate or microcredential in GIS.

Finally, this degree program has been designed in consultation with community partners, including members of the COSM Environmental Science Advisory Board as well as the CoLA Dean's Leadership Board. Creating this program will further cement relationships with regional government, non-profit, and business partners by providing qualified employees with the essential skills needed in the following career paths:

- environmental management, law, education, public policy
- environmental communication specialist
- natural resources, conservation, or sustainability consultant
- geographic or geospatial technician
- environmental restoration planner

## **Bachelor of Arts and Bachelor of Science in Interdisciplinary Studies**

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### **Wright State University**

### **College of Liberal Arts**

Rather than a fully new degree, the BA and BS in Interdisciplinary Studies represent a rebranding and restructuring of the existing Bachelor of Arts in Liberal Studies in order to better meet the needs of students and employers. The renaming allows the programs to be more clearly recognizable and appealing to students who seek to complete an undergraduate degree by combining different interdisciplinary interests. In particular, the reconfigured program responds to the following market demand and needs:

- Non-traditional/working adult students/degree completers (including veterans and base employees) need and want an option to complete an undergraduate degree that is not tied to a specific field and that can be completed partially or completely online.
- Local workforce needs for employees who are self-starters, able to think creatively, make ethical decisions, work collaboratively with diverse colleagues and clientele, be flexible and adapt to changing circumstances, and communicate effectively in speech and writing.
- Rebranding the program, making the curriculum more flexible, and allowing for stacking of minors, certificates, and microcredentials will appeal to a broader base of returning students/working adults while continuing to serve the needs of transfer students, as well as traditional first-time undergraduates who have multiple interests that cannot be easily encapsulated within a single major. Existing certificates and minors that can be stacked within the major include Women, Gender, and Sexuality Studies; Arts Management; Career Advancement Skills I and II; Diversity and Social Inequality; Geographic Information Science; National Security Studies; and Fundamentals of Crime and Justice Studies.
- In addition, both the B.A. and the B.S. can serve as a retention/completion degree for students exiting other majors for whatever reason.

The new BA and BS in Interdisciplinary Studies allow us to leverage the expertise of existing faculty to create a flexible, meaningful, and appealing program that does not require new resources. Both degrees will be available for completion fully online. Thus, these changes will lead to significantly increased enrollment in the program and also create additional pathways to graduate programs at WSU, including the Master in Public Administration, the MBA, the Master in Public Health, and the Master in Humanities.