

NISTS 2022

FROM MOMENT TO MOVEMENT: SHAPING THE FUTURE OF TRANSFER
FEBRUARY 2-4 | ST. LOUIS • FEBRUARY 23-24 | VIRTUAL

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Educational Session

2377 - Building Momentum with Applied Degree Pathways

Credits and Degree Pathways, Partnerships and Collaboration

Despite significant enrollment in applied or technical associate degree programs, statewide associate-to-bachelor's transfer initiatives tend to overlook these programs due to a number of challenges associated with their transfer. This session will share how Ohio is tackling these challenges through statewide faculty collaboration to develop applied degree pathways. Participants will learn about the importance of these efforts as well as ideas for how they might improve applied degree transfer for their institution or state.

Candice Grant, *Senior Director, Ohio Guaranteed Transfer Pathways*

Ohio Department of Higher Education

A Newton's cradle with five silver spheres hanging from thin wires against a blue background. The leftmost sphere is in motion, having just struck the other three, which are now swinging together.

Building Momentum with Applied Degree Pathways

February 24, 2022

Candice Grant

Ohio Department of Higher Education

Section 3333.16(D) Ohio Revised Code

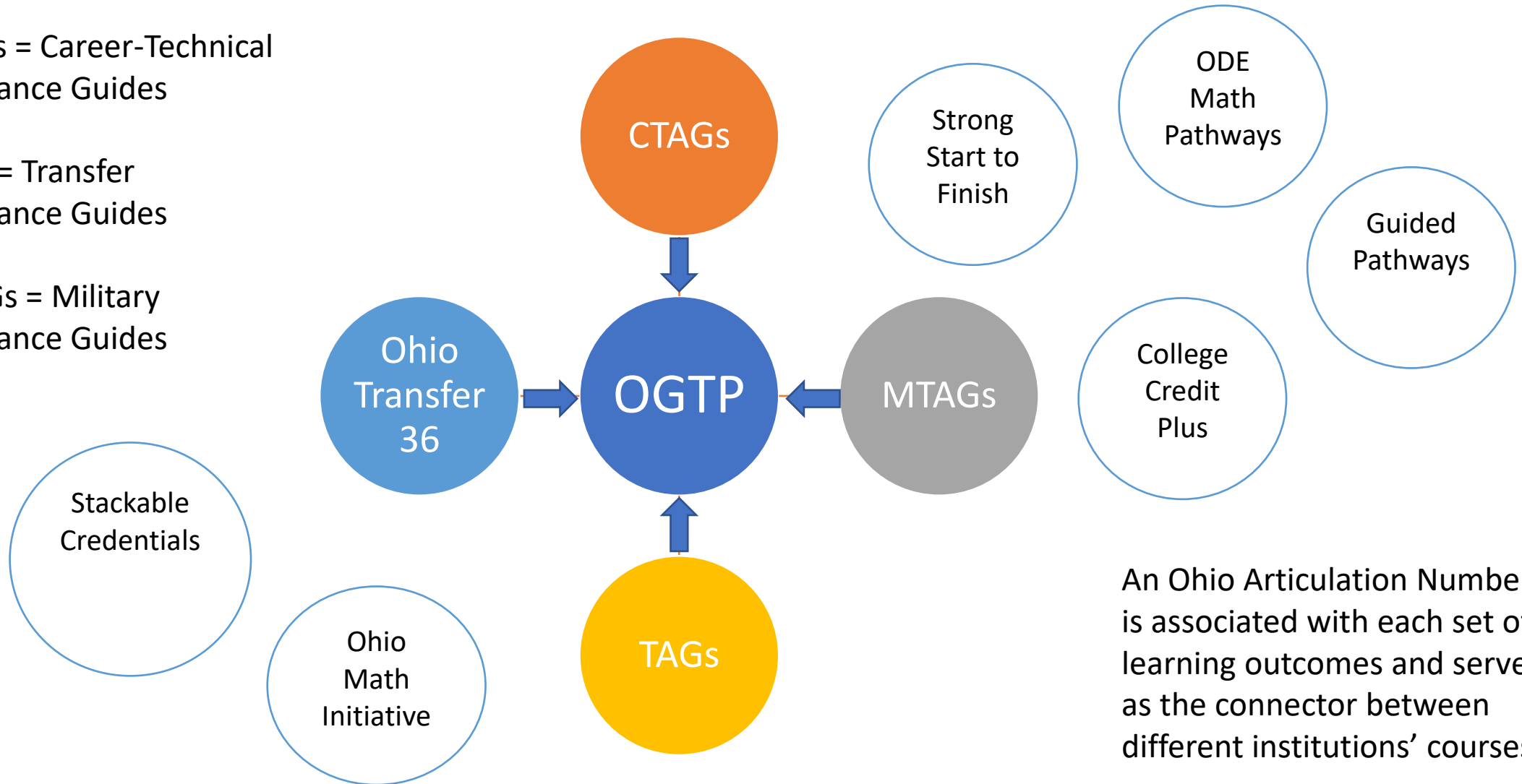
Not later than December 1, 2018, the chancellor shall update and implement the policies and procedures established pursuant to this section to ensure that **any associate degree** offered at a state institution of higher education may be transferred and applied to a bachelor degree program in an equivalent field at any other state institution of higher education without unnecessary duplication or institutional barriers. The policies and procedures shall ensure that each transferred associate degree applies to the student's degree objective in the same manner as equivalent coursework completed by the student at the receiving institution.

Ohio Guaranteed Transfer Pathways

CTAGs = Career-Technical Assurance Guides

TAGs = Transfer Assurance Guides

MTAGs = Military Assurance Guides



An Ohio Articulation Number is associated with each set of learning outcomes and serves as the connector between different institutions' courses.

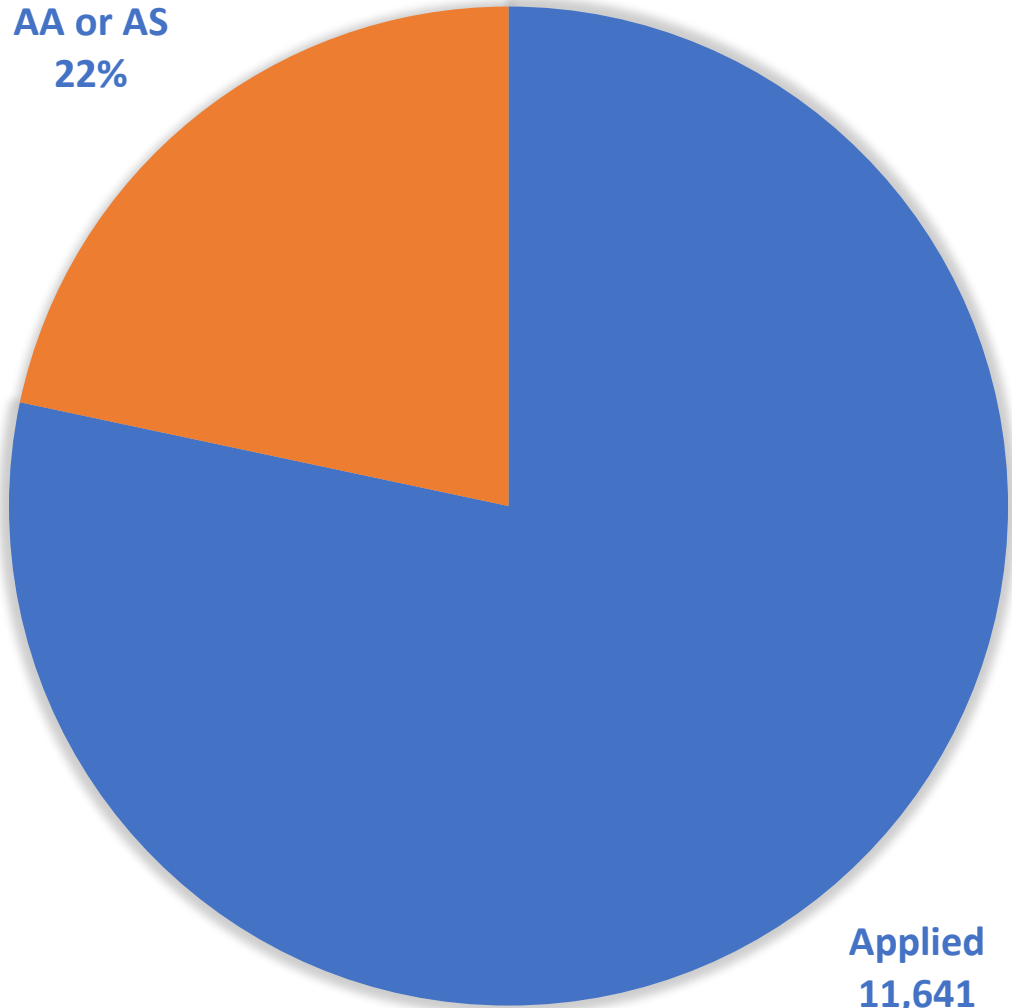
ASSOCIATE DEGREE COMPLETION

Associate degrees granted by Ohio public institutions fall in two broad categories:

Applied & Technical:
Associate of Applied Business (AAB); Associate of Applied Science (AAS); Associate of Technical Studies (ATS) & Associate of Information Technology (AIT)

Arts & Sciences
Associate of Arts (AA) & Associate of Science (AS)

3,220
AA or AS
22%



Applied
11,641
78%

Associate Degree Requirements

Applied Associate Degree

- At least 15 semester hours of general education (Ohio Transfer 36 approved)
 - One course in English Composition (3 hours)
 - One course in Mathematics, Statistics, and Logic* (3 hours)
 - Six credit hours from two of the three categories:
 - Arts & Humanities
 - Social & Behavioral Sciences
 - Natural Sciences*
- Up to 15 semester hours of applied general education
- 30 semester hours of technical credits

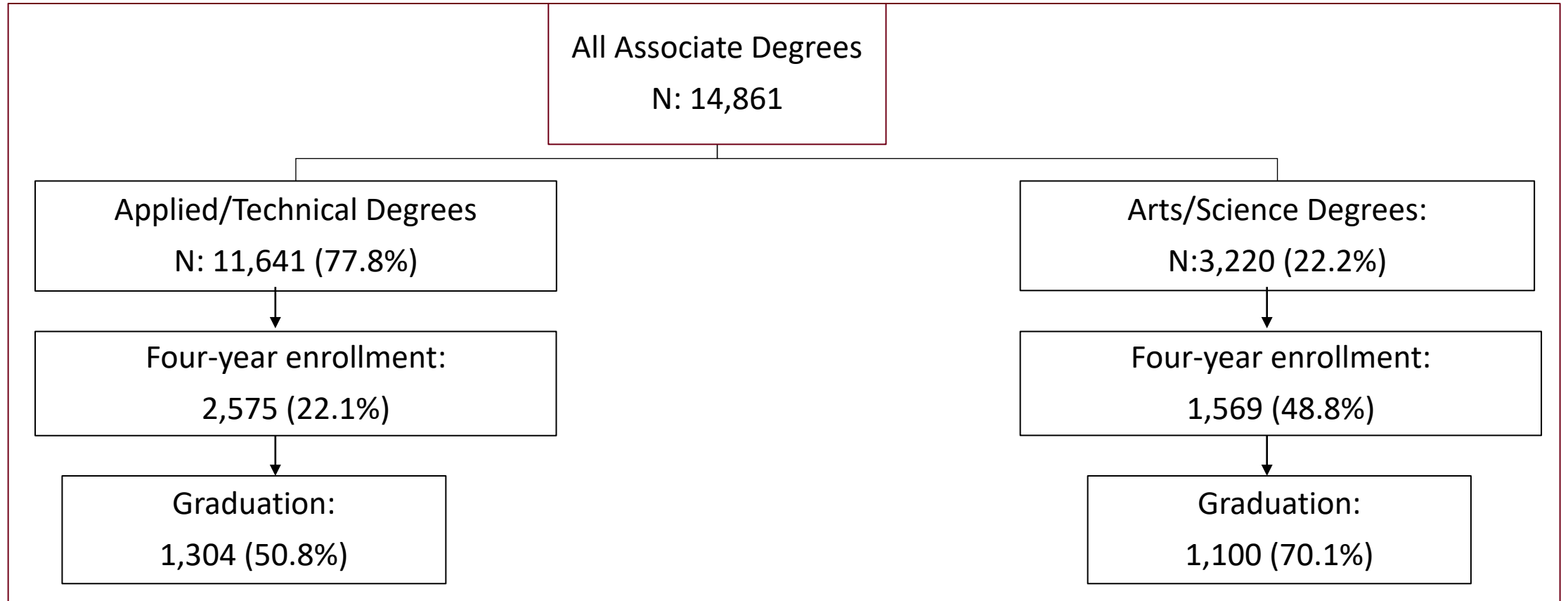
Associate of Arts or Associate of Science Degree

- 36+ hours of Ohio Transfer 36 approved general education
- Other coursework up to 60-65 semester hours

**"However, recognizing that the skills needed for some [Ohio Transfer 36] courses in the mathematics and science areas exceed the skills needed for the successful completion of some applied degrees, [Ohio Transfer 36]-approved courses are not required to fulfill the mathematics and science requirements."*

https://www.ohiohighered.org/sites/ohiohighered.org/files/uploads/program-approval/Academic-Program-Review-Guidelines_070516.pdf

Progression from associate to baccalaureate degrees: All associate degree recipients



Note: Four-year enrollment refers to attendance at Ohio public four-year main and regional campuses.

Applied Degree Pathways

Finalized

- Electrical Engineering Technology
- Mechanical Engineering Technology

- Applied Business
- Respiratory Therapy

Under Development

- Civil/Construction Engineering Technology
- Clinical/Medical Laboratory
- Criminal Justice
- Dietetics
- Early Childhood Education
- EMT/Paramedic
- Exercise Science/Pre-Health Professional
- Fire Science
- Health Information Management
- Human Services/Social Work
- Nursing



Model 1: Engineering Technology



Statewide

Mechanical Engineering Technology Associate of Applied Science

November 16, 2020

Mechanical Engineering Technology Guaranteed Transfer Pathway

GENERAL EDUCATION REQUIREMENTS		Credit Hours
English Composition:	Any OTM approved First Writing (TME001) course	3
Mathematics, Statistics, and Logic:	Precalculus (TMM002) or College Algebra (TMM001) and Trigonometry (TMM003) ¹	5-8
Arts & Humanities:	Any OTM approved Arts and Humanities course	3
Social & Behavioral Sciences:	Any OTM approved Social and Behavioral Sciences course	3
Natural Sciences:	Algebra-based Physics I (OSC014)	4-5
Natural Sciences:	Algebra-based Physics II (OSC015) (preferred) or other OTM Natural Sciences course	4-5
English Composition & Oral Communication:	Public Speaking (OCM013), Oral Communication (TMOC), Technical Writing, or Second Writing (TME002) course	3
General Education Electives:	General Education Electives (if needed)	0-5
GENERAL EDUCATION TOTAL:		25-30
<p>Advising Notes: Where it indicates "Any OTM approved," students should work closely with their advisors. ¹ Calculus (TMM005) is recommended, either in fulfillment of the mathematics requirement or as an elective course, since certain bachelor degree programs prefer that Calculus be taken prior to transfer in order to allow students to complete the program most efficiently. However, there are also bachelor degree programs that will incorporate Calculus into the remaining coursework upon transfer. Students should work with their academic advisor and their intended receiving institution to determine the best program of study.</p>		



Guaranteed Transfer Pathways

Statewide

Mechanical Engineering Technology Associate of Applied Science

November 16, 2020

TECHNICAL, PRE-MAJOR, BEGINNING MAJOR		Credit Hours
Course 1:	Statics (OET007)	3
Course 2:	Strength of Materials (OET008)	3
Course 3:	Fluid Mechanics (OET009)	3
Course 4:	Manufacturing Processes (OET010)	3
Course 5:	CAD (OET012)	3
Course 6:	Engineering Materials (OET013)	3
TECHNICAL, PRE-MAJOR, BEGINNING MAJOR TOTAL:		18

ADDITIONAL COURSEWORK	Credit Hours
Technical Electives (Recommended: Engineering Graphics (highly recommended), Programming Languages, Machine Design, and/or a second Manufacturing Processes course)	12-18
ADDITIONAL COURSEWORK TOTAL:	12-18

APPLIED ASSOCIATE DEGREE	Total Credit Hours
APPLIED ASSOCIATE DEGREE TOTAL:	60-65

SPECIAL NOTES

Some bachelor-degree granting programs may be competitive and admission into the program is not guaranteed. Students should check with individual institutions for their program admission requirements.

Bachelor-degree granting institutions may require additional general education courses since students will not complete the Ohio Transfer Module by following this pathway and will take these courses upon transfer.

Mechanical Engineering Technology Guaranteed Transfer Pathway

Bachelor's Degree Completion

Course Equivalency Information



Kent State University
Engineering Technology,
Mechanical/Systems concentration
Bachelor of Science

Effective beginning Academic Year 2020-21 (Last revised August 19, 2021)

The following table outlines how transfer credits will be applied to the Bachelor of Science in Engineering Technology degree with a Mechanical/Systems concentration at Kent State University for students who completed an associate degree via the Ohio Guaranteed Mechanical Engineering Technology Transfer Pathway. The OGTP designation guarantees the transfer and applicability of credits, but does not guarantee admission to a program. Some bachelor-degree granting programs may be competitive, and students should check with individual institutions for their program admission requirements.

COURSE EQUIVALENCIES FROM THE ASSOCIATE DEGREE	Course Number	Credit Hours
GENERAL EDUCATION REQUIREMENTS/OHIO TRANSFER 36		
Any Ohio Transfer 36 approved First Writing (TME001) course	ENG 11011	3
Precalculus (TMM002) or College Algebra (TMM001) and Trigonometry (TMM003) ¹	MATH 11010 and MATH 11022	6
Any Ohio Transfer 36 approved Arts and Humanities course	Ohio Transfer 36 Elective*	3
Any Ohio Transfer 36 approved Social and Behavioral Sciences course ¹	Ohio Transfer 36 Elective*	
Algebra-based Physics I (OSC014)	PHY 13001/PHY 13002	5
ADDITIONAL/APPLIED GENERAL EDUCATION REQUIREMENTS		
Algebra-based Physics II (OSC015) (preferred) or other Ohio Transfer 36 Natural Sciences course	PHY 13002/PHY 13022	5
Public Speaking (OCM013), Oral Communication (TMOC), Technical Writing, or Second Writing (TME002) course	COMM 15000, ENG 21011, or Ohio Transfer 36 Elective*	3
General Education Electives ¹	Varies*	6
PRE-MAJOR/BEGINNING MAJOR		
Statics (OET007)	MERT 22005	3
Strength of Materials (OET008)	MERT 22007	3
Fluid Mechanics (OET009)	MERT 22012	3
Manufacturing Processes (OET010)	MERT 12004	3
CAD (OET012)	MERT 12001	3
Engineering Materials (OET013)	MERT 12005	3
Technical Electives	Electives*	12-18
TOTAL HOURS FROM ASSOCIATE DEGREE:		60-65

Advising Notes:

(*) Indicates that coursework will be evaluated for applicable equivalency upon transfer at the university. If a Transfer Assurance Guide (TAG) course is taken, the approved course equivalency will be awarded.

¹The Kent Core requires students take two Social Sciences courses from two different curricular areas. OSS004 Principles of Microeconomics is required as part of the bachelor's degree program of study, so students could either take OSS004 and/or an Ohio Transfer 36 approved Social & Behavioral Sciences course in an area outside of economics.

The following additional coursework will be required to complete the Bachelor of Science in Engineering Technology degree with a Mechanical/Systems concentration at Kent State University after a student has completed their associate degree via the Ohio Guaranteed Mechanical Engineering Technology Transfer Pathway. Some bachelor-degree granting programs may be competitive and admission into the program is not guaranteed. Students should check with individual institutions for their program admission requirements.

REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE		Course Number	Credit Hours
Major Requirement:	Technical Computing	EERT 32003	3
Major Requirement:	Engineering and Professional Ethics	EERT 21010 or ENGR 31010	3
Major Requirement:	Introduction to Technical Writing or Business Communications	ENG 20002 or OTEC 26638	3
Major Requirement:	Cultural Dynamics Technology (DVD) (WIC) or Cooperative Education - Professional Development (ELR) (WIC)	ENGR 31000 or ENGR 33092	3
Major Requirement:	Materials Science and Technology	ENGR 33363	3
Major Requirement:	Quality Techniques	ENGR 33700	3
Major Requirement:	Project Management in Engineering and Technology	ENGR 36620	3
Major Requirement:	Industrial and Environmental Safety	ENGR 43080	3
Major Requirement:	Technical and Applied Studies Capstone (ELR)	TAS 47999	3
Additional Requirement:	Introduction to Technical Writing or Business Communications	ENG 20002 or OTEC 26638	3
Additional Requirement:	Principles of Microeconomics (KSS)	ECON 22060	3
Additional Requirement:	Intuitive Calculus (KMCR)	MATH 11012	3
Additional Requirement:	Project Management for Administrative Professionals	OTEC 26636	1
Concentration Requirement:	Machine Design or Facility Design and Material Handling	MERT 32004 or ENGR 33870	3
Concentration Requirement:	Advanced Manufacturing or Computer-Integrated Manufacturing	ENGT 30000 or ENGR 43700	3
Concentration Requirement:	Mechanical/Systems Concentration Electives	Varies	9
Kent Core Requirement:	Kent Core Composition 2 (KCP2) (if not already completed)	Varies	3
Kent Core Requirement:	Kent Core Humanities (KHUM)	Varies	3
Kent Core Requirement:	Kent Core Fine Arts (KFA)	Varies	3

REMAINING COURSEWORK TO COMPLETE BACHELOR'S DEGREE TOTAL:³ 61

Advising Notes:
¹ Students who have earned an associate degree will have 27 credits of technical coursework articulate to the bachelor's degree program and will not have to take the electives for a minor or individualized specialization.
² Students must successfully complete one domestic (DVD) and one global (DIVG) course, of which one must be from the Kent Core. Students should consult with a Kent State University advisor for more information.
³ Kent State requires a total of 120 credits hours for bachelor's degree completion. The total number of hours to complete the bachelor's degree represents a range of hours that may be needed depending on the individual course selections made during the associate degree program.

COMPLETE BACHELOR'S DEGREE	Total Credit Hours
BACHELOR'S DEGREE TOTAL:	120

Bachelor's Degree Completion

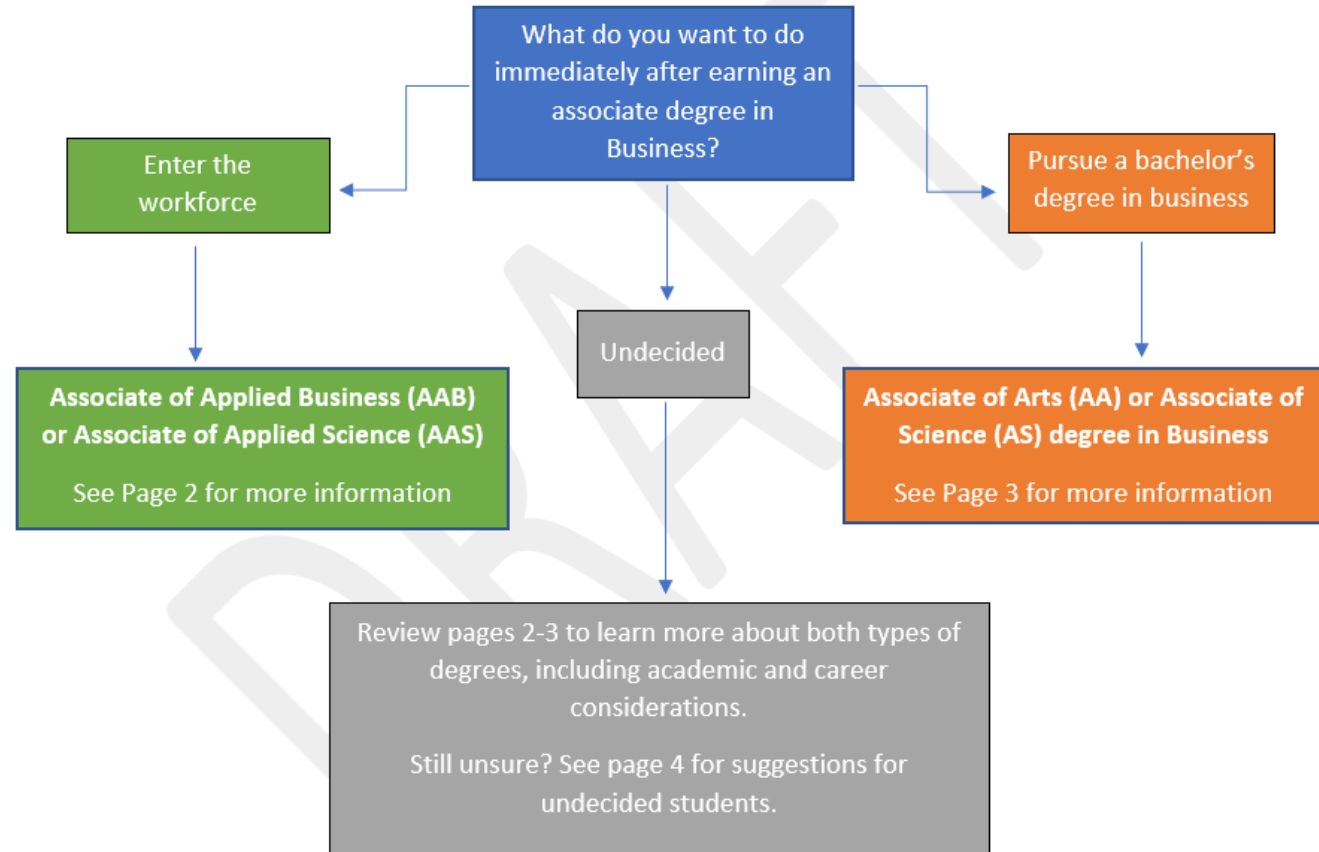
Remaining Coursework



Model 2: Applied Business

Business Decision Guide

So you're interested in earning an associate degree in Business? There are two main types of degrees that you could earn. This flow chart will help you to consider which might better fit your academic and career goals. Also work with your academic advisor for help with your decision and to get additional information specific to your institution.





Guide for Undecided Students

Undecided Students

If you are interested in business, but are undecided between an applied associate degree and an associate of art or science degree, ask your advisor to help you select courses that will count toward both types of associate degrees. Below is a list of courses that are typically required for both types of business degrees, but your advisor should be able to provide suggestions specific to your college. Taking courses that count toward both types of degrees will give you time to research which path is the best fit for you. In addition to your academic advisor, you can talk with mentors, employers, and family to help you explore your options and decide on a degree program. Students will need to decide on their degree program, at the latest, by the time they complete approximately 30 credit hours (which is about 10 courses).

General Education/OTM Courses:

- First Writing (TME001)
- Microeconomics (OSS004)
- Second Writing (TME002) or Public Speaking (OCM013) or Oral Communication
- Ohio Transfer Module (OTM) Electives

Business TAG Courses:

- Introduction to Financial Accounting (OBU010)
- Introduction to Managerial Accounting (OBU011)
- Legal Environment of Business (OBU004)
- Management and Organizational Behavior (OBU012)
- Principles of Marketing (OBU006)
- Business Communications (OBU005)
- Business Statistics (OBU013)

Miami University

Bachelor of Science in Commerce

The BS in Commerce offers three majors: Small Business Management, Digital Commerce, and Sales Management. The Small Business Management major lets you pursue an in-depth examination of small businesses built on a foundation of courses in traditional business areas such as accounting, management and marketing. The Sales Management major emphasizes personal selling, sales management and business-to-business marketing. The Digital Commerce major lays the foundation for graduates to develop marketing campaigns through digital channels and understand marketing metrics to adjust campaigns.

Important Transfer Information:

If students enter with an associate degree in business or with the Ohio Transfer Module completed, they are guaranteed to be able to graduate in approximately 60 additional credit hours.

Program Website:

<https://www.miamioh.edu/regionals/academics/departments/cmr/academics/majors/bachelors-degrees/index.html>

Contact Information:

Ted Light
lighttb@miamioh.edu

Delivery Method(s):

- Online
- Hybrid
- Traditional day classes on campus
- Evening classes on campus

Applied Business Directory Example

Model 3: Nursing

Nursing Guaranteed Transfer Pathway

This transfer pathway is between Ohio's public institutions of higher education. It would only apply for transfer students from public institutions of higher education who have an active Registered Nurse (RN) license. Bachelor of Science in Nursing (BSN) programs may be competitive and admission into the program is not guaranteed. Students should check with their intended receiving institution for program admission requirements.

Students who have earned their associate degree in nursing (ADN) from one of Ohio's public community and technical colleges (or completion of equivalent program) can be assured that, at a minimum, the following credits will be awarded and requirements waived with successful completion of their program and upon admission to a BSN program at one of Ohio's public universities.

General Education/Ohio Transfer 36

Direct Course Equivalency Transfer

- First Writing (Ohio Transfer 36 approved) – 3 hours
- Mathematics (Ohio Transfer 36 approved) – 3-4 hours
- General Psychology or lifespan development (Ohio Transfer 36 approved) – 3 hours
- Anatomy & Physiology I & II with lab – 8-10 hours

Credit toward general requirements

- Equivalent of 6 semester credit hours of Ohio Transfer 36 Natural Sciences, including one lab, for integrated curricular content (e.g., chemistry, microbiology), or specific Ohio Transfer 36 course equivalency credit if standalone Ohio Transfer 36 Natural Sciences courses were taken

Total: 23-26

Nursing Technical Coursework

- Students should receive at least 30 hours of credit counting toward the Nursing major. Institutions may choose to award additional credit.

Total: at least 30 hours



Challenges



Differing general education/college specific requirements



Mathematics



Similar sounding program names/not compatible coursework



New paradigms

Opportunities



New paradigms



Expansion of the Ohio's statewide guaranteed course equivalency system and further integration



Mathematics Alignment work via the [Ohio Mathematics Initiative](#)



Education via the Ohio Guaranteed Transfer Pathways



[Industry-Recognized Credentials Transfer Assurance Guides \(ITAGs\)](#)



Questions?

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Please remember to complete the [Session Evaluation](#) for 2377--Building Momentum with Applied Degree Pathways