5 Roadmap: Aeronautics - Air Traffic Control - Bachelor of Science
[CT-BS-AERN-ATC]
College of Technology
Catalog Year: 2010-2011
This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designated as critical (in boldface and shaded areas) must be completed in the semester listed to ensure a timely graduation.

| Course Subject and Title | Credit Hours | Upper Division | Min. Grade | Important Notes |
| :---: | :---: | :---: | :---: | :---: |
| Semester One: [15 Credit Hours] |  |  |  |  |
| TECH 15000 Introduction to Aeronautics | 3 |  |  |  |
| TECH 15250 FAA Orientation | 3 |  |  |  |
| TECH 15740 Elements of Flight Theory | 5 |  |  |  |
| MATH 11010 Algebra for Calculus | 3 |  |  | Fulfills Kent Core Mathematics and Critical Reasoning |
| US 10097 Destination Kent State: FYE | 1 |  |  | Not required for transfer students with 25 credits |
| Semester Two: [14 Credit Hours] |  |  |  |  |
| MATH 11022 Trigonometry | 2 |  |  |  |
| TECH 10001 Information Technology | 3 |  |  |  |
| TECH 20002 Materials and Processes | 3 |  |  |  |
| TECH 25250 Elements of Aviation Weather | 3 |  |  |  |
| Kent Core Requirement | 3 |  |  | See Kent Core Summary on page 2 |
| Semester Three: [18 Credit Hours] |  |  |  |  |
| COMM 15000 Introduction to Human Communication | 3 |  |  | Fulfils Kent Core Additional |
| ECON 22060 Principles of Microeconomics | 3 |  |  | Fulfills Kent Core Social Sciences |
| PHY 13011 College Physics I | 2 |  |  | Fulfills Kent Core Basic Sciences; |
| PHY 13021 General College Physics Laboratory I | 1 |  |  | courses must be taken together |
| TECH 13580 Engineering Graphics I | 3 |  |  |  |
| Kent Core Requirement | 6 |  |  | See Kent Core Summary on page 2 |
| Semester Four: [16 Credit Hours] |  |  |  |  |
| TECH 25350 Fundamentals of Air Traffic Control | 2 |  |  |  |
| TECH 25351 Fundamentals of Air Traffic Control Laboratory I | 1 |  |  | spring only |
| ENG 20002 Introduction to Technical Writing | 3 |  |  |  |
| GEOG 17063 World Geography | 3 |  |  | Fulfills Kent Core Social Sciences and global diversity course requirement |
| PHY 13012 College Physics II | 2 |  |  | Fulfills Kent Core Basic Sciences; |
| PHY 13022 General College Physics Lab II | 1 |  |  | courses must be taken together |
| TECH 21021 Survey of Electricity and Electronics | 4 |  |  |  |
| Semester Five: [15 Credit Hours] |  |  |  |  |
| MATH 11012 Intuitive Calculus | 3 |  |  | Fulfills Kent Core Additional |
| TECH 35020 Aircraft Propulsion Systems | 3 | $\square$ |  |  |
| TECH 35340 Airport Management | 3 | $\square$ |  |  |
| TECH 35341 Air Transportation Systems | 3 | $\square$ |  |  |
| TECH 35342 Air Traffic Control | 3 | $\square$ |  |  |
| Semester Six: [15 Credit Hours] |  |  |  |  |
| TECH 35343 En Route Air Traffic Control | 2 | ■ |  | Courses must be taken together; offered in spring only |
| TECH 35344 En Route Air Traffic Control Laboratory | 1 | ■ |  |  |
| MIS 24163 Principles of Management | 3 |  |  |  |
| TECH 33033 Hydraulics/Pneumatics | 3 | $\square$ |  |  |
| TECH 45130 Physiology and Human Factors | 3 | ■ |  |  |
| Kent Core Requirement | 3 |  |  | See Kent Core Summary on page 2 |

Critical requirements are boldface in shaded areas

| Course Subject and Title | Credit Hours | Upper Division | Min. Grade | Important Notes |
| :---: | :---: | :---: | :---: | :---: |
| Semester Seven: [15 Credit Hours] |  |  |  |  |
| TECH 45343 En Route Air Traffic Control II | 2 | $\square$ |  | Courses must be taken together; offered in fall only |
| TECH 45344 En Route Air Traffic Control II Laboratory | 1 | $\square$ |  |  |
| TECH 45250 Aviation Law and Safety | 3 | $\square$ |  |  |
| TECH 45350 Avionics | 3 | ■ |  |  |
| Kent Core Requirement | 3 |  |  | See Kent Core Summary on page 2 |
| General Elective (lower or upper division) | 3 |  |  | Should fulfill domestic diversity requirement if not satisfied earlier |
| Semester Eight: [16 Credit Hours] |  |  |  |  |
| TECH 45320 Air Traffic Control II | 2 | ■ |  | Courses must be taken together; offered in spring only |
| TECH 45321 Air Traffic Control II Laboratory | 1 | $\square$ |  |  |
| TECH 45150 Applied Flight Dynamics | 3 | $\square$ |  |  |
| TECH 45291 Aerospace Senior Seminar | 1 | $\square$ |  |  |
| TECH 45791 Aviation Security and Policy Seminar | 3 | $\square$ | C | Fulfills writing-intensive requirement |
| General Elective (lower or upper division) | 6 |  |  | Should fulfill domestic diversity requirement if not satisfied earlier |

## Graduation Requirements Summary

| Minimum <br> Total Hours | Minimum Upper- <br> Division Hours | Minimum <br> Kent Core Hours | Diversity Course <br> Global / Domestic | Writing-Intensive | Minimum <br> Major GPA |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 124 | 39 | 36 | GEOG 17063/ <br> Kent Core or General <br> Elective | TECH 45791 | 2.25 | 2.0 |

## Kent Core Summary

| Kent Core Categories | Important Notes | Remaining <br> Credit Hours |
| :--- | :--- | :---: |
| Additional (6 credit hours) <br> Must be selected from two Kent Core categories | Fulfilled in this major with COMM 15000, MATH 11012 | 0 |
| Basic Sciences (6-7 credit hours) <br> Must include one laboratory | Fulfilled in this major with PHY 13011, PHY 13012, PHY <br> 13021 and PHY 13022 | 0 |
| Composition (6-8 credit hours) <br> ENG 11002, 11011, 21011; HONR 10197, 10297 | Enrollment based on placement test | $6-8$ |
| Humanities and Fine Arts (9 credit hours) <br> Minimum one course from humanities in Arts and Sciences <br> category and minimum one course from fine arts category | May fulfill domestic diversity requirement | 9 |
| Mathematics and Critical Reasoning (3-5 credit hours) | Fulfilled in this major with MATH 11010. |  |
| Social Sciences (6 credit hours) <br> Must be selected from two curricular areas | Fulfilled in this major with ECON 22060 and GEOG 17063 | 0 |

## Kent Core

Students must complete a minimum 36 credit hours of the Kent Core. Certain courses required in programs and in student's major field may also fulfill the Kent Core. Honors equivalents shall satisfy the Kent Core. None of the courses on the Kent Core list may be taken with a pass/fail grade. Visit www.kent.edu/catalog/kent-core for course list.

## Diversity Course Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the Kent Core. The second course may be taken as a second Kent Core, within a major or minor, or as a general elective; or, with dean's approval, by completing one semester of study in another country. Visit www.kent.edu/catalog/diversity for course list.

## Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum $C$ (2.00) grade.
Visit www.kent.edu/catalog/wic for course list.

## Upper-Division Requirement

Students must complete a minimum 39 upper-division (numbered 30000 to 49999) credit hours of coursework. Programs in the College of Arts and Sciences require a minimum of 42 hours of upper-division coursework.

