

# B.S. in Meteorology

## Degree Requirements

The Bachelor of Science degree in Meteorology requires successful completion of a minimum of 120 credit hours and can typically be attained in eight semesters. All students entering the Meteorology program must take a math placement test or show suitable advanced placement.

Because many courses have prerequisites or co-requisites, students should prepare to begin the required calculus sequence and physics sequence as soon as they are eligible. All students must complete a capstone course (WX 482) during their senior year. The student must meet all requirements in the five program areas to graduate with a Bachelor of Science degree in Meteorology. These include: General Education, Program Support, Meteorology Core, Specified Electives and Open Electives.

General Education	38
Program Support	14
Meteorology Core	48
Specified Electives	6
Open Electives	14
<b>Total Credits</b>	<b>120</b>

## General Education Requirements

For a full description of Embry-Riddle General Guidelines please see the General Education section of the catalog.

Communication Theory and Skills (COM 221 recommended)	9
Lower-Level Humanities	3
Lower-Level Social Sciences	3
Lower or Upper-Level Humanities or Social Sciences	3
Upper-Level Humanities or Social Sciences	3
Computer Science/Information Technology (CS 118 recommended)	3
Mathematics (MA 241 and MA 242 recommended)	8
Physical and Life Sciences (PS 150 and PS 160 recommended)	6
<b>Total Credits</b>	<b>38</b>

## Program Support Requirements

Program support courses are intended to provide foundational concepts to enhance college success or to prepare students for advanced meteorology courses.

MA 243	Calculus and Analytical Geometry III	4
MA 345	Differential Equations and Matrix Methods	4
CHM 110	General Chemistry I	3
CHM 110L	General Chemistry I Laboratory	1
PS 113L	Introductory Physics I Laboratory	1
UNIV 101	College Success	1
<b>Total Credits</b>		<b>14</b>

## Meteorology Core Requirements

GEO 215	Introduction to Geoscience	3
WX 201	Survey of Meteorology	3
WX 272	Meteorological Instruments and Data Analysis	3
WX 325	General Meteorology	3
WX 327	Operational Analysis and Forecasting	3
WX 367	Thermodynamic Meteorology	3
WX 368	Physical Meteorology	3
WX 374	Dynamic Meteorology I	3
WX 375	Dynamic Meteorology II	3

WX 378	Synoptic Analysis	3
WX 381	Climate Dynamics	3
WX 422	Meteorological Statistics and Data Analysis	3
WX 462	Numerical Weather Prediction	3
WX 466	Advanced Synoptic Analysis and Forecasting	3
WX 478	Mesoscale Meteorology	3
WX 482	Research Methods in Meteorology	3

**Total Credits** 48

## Specified Electives

Choose one Upper Level Specified Elective		3
CIV 417	Air Pollution	
GEO 310	Advanced Geographic Information Systems	
WX 301	Aviation Weather	
WX 305	Weather Support Operations	
WX 340	Severe Weather Field Forecasting	
WX 360	Hurricanes and Tropical Meteorology	
WX 361	Global Climate Change	
WX 365	Satellite and Radar Weather Interpretation	
WX 380	Advanced Broadcast Meteorology	
WX 399	Special Topics in Applied Meteorology	
WX 410	Weather for Commercial Air Transport	
WX 475	Video Production	
WX 499	Special Topics in Applied Meteorology	
Choose one Lower Level or Upper Level Specified Elective		3
CIV 417	Air Pollution	
GEO 210	Introduction to Geographic Information Systems	
GEO 310	Advanced Geographic Information Systems	
WX 261	Applied Climatology	
WX 280	Introduction to Broadcast Meteorology	
WX 299	Special Topics in Applied Meteorology	
WX 301	Aviation Weather	
WX 305	Weather Support Operations	
WX 340	Severe Weather Field Forecasting	
WX 360	Hurricanes and Tropical Meteorology	
WX 361	Global Climate Change	
WX 365	Satellite and Radar Weather Interpretation	
WX 380	Advanced Broadcast Meteorology	
WX 399	Special Topics in Applied Meteorology	
WX 410	Weather for Commercial Air Transport	
WX 475	Video Production	
WX 499	Special Topics in Applied Meteorology	
<b>Total Credits</b>		<b>6</b>

Specified Electives allow the student more breadth in the atmospheric and geosciences.

## Open Electives

Open Electives	14
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Open Electives allow the student, with the guidance of an academic advisor, to select from a wide range of possible courses, which would help prepare for their individual career path. Suggested electives include additional WX courses, AS courses, BA courses, CS courses, COM courses, MA courses, and PS courses. Students will select at least 14 credits of open electives. Students seeking graduate school in meteorology or atmospheric science should consider a minor in mathematics (applied or computational) or computer science. Students seeking to become a broadcast meteorologist should consider a minor in Communication and Broadcast Media.

## **Total Degree Credits**

<b>Total Degree Credits</b>	<b>120</b>
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