

University of the Incarnate Word®

Bachelor of Science in Meteorology

School of Mathematics, Science and Engineering

PROGRAM OVERVIEW

The Bachelor of Science in Meteorology in the School of Mathematics, Science and Engineering at the University of the Incarnate Word prepares students for successful and impactful careers in the diverse fields of weather science, forecasting and atmospheric conservation, and for advanced degrees in pursuit of researcher or educator positions. UIW offers the only B.S. Meteorology and Broadcast Meteorology program in San Antonio and throughout South Texas.

The B.S. in Meteorology is a 132-hour interdisciplinary degree program that offers a comprehensive education which prepares students to enter a wide variety of professional careers as well as graduate programs in weather modeling and forecasting, air pollution studies, broadcast meteorology, hydrology, Geographic Information Systems (GIS) applications in meteorology, and education.

The Meteorology program philosophy seeks to develop in the student an appreciation of the Earth's fragile atmosphere through education and understanding of the Earth's atmosphere. Students learn to critically analyze and evaluate the interactions of the atmosphere with the oceans and biosphere, and recognize the problems and issues of local and regional air pollution, the profound implications and long-term effects of global warming on the planet, the effects of severe weather, as well as the long-term effects of human impact on weather and climate. Students can also expect to research, model and investigate global weather events and their causes and impacts.

Meteorology courses taken in these majors are applicable toward partially fulfilling the academic requirements to earn the AMS or NWA Seal of Approval.

ADMISSION REQUIREMENTS

The requirements for admission to the B.S. in Meteorology program are the same as the requirements for admission to the University of the Incarnate Word.

CONTACT

UIW Admissions
(210) 829-6005
admission@uiwtx.edu

This publication is available in alternate format by request. To request an alternate format, please contact the UIW Office of Admissions at (210) 829-6005. 5/2021 500

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THE WORD
IN THE WORLD**

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Meteorology

B.S. in Meteorology

FRESHMAN YEAR

Fall

ENGL 1311: Composition I (3 hours)
 CHEM 1301: Chemical Principles I (3 hours)
 MATH 1311: Precalculus* (3 hours)
 Computer Programming** (3 hours)
 SPAN 1311: Elementary Spanish I or modern language
 (3 hours)

Total Hours: 15

*MATH 1311 may not be required if student Comps out.

**One of the following courses: CIS 2330 Programming I, CIS 3660 Computer Science, ENGR 2340 Computer Programming for Mathematics, Sciences and Engineering, or other approved studies.

Spring

ENGL 1312: Composition II (3 hours)
 CHEM 1302: Chemical Principles II (3 hours)
 CHEM 1203L: General Chemistry Lab (2 hours)
 MATH 2312: Calculus I (3 hours)
 METR 1430: Meteorology (4 hours)
 SPAN 1312: Elementary Spanish II or modern
 language (3 hours)
 Fine Arts (3 hours)

Total Hours: 21

SOPHOMORE YEAR

Fall

METR 1360: Climatology (3 hours)
 METR 3360: Satellite Meteorology (3 hours)
 PHYS 2305: Physics I (3 hours)
 PHYS 2105: Physics I Lab (1 hour)
 ENGL 2310: World Literature Studies (3 hours)
 MATH 2313: Calculus II (3 hours)

Total Hours: 16

*or other approved studies

Spring

METR 1325: Natural Hazards (3 hours)
 MATH 3314: Calculus III (3 hours)
 PHYS 2306: Physics II (3 hours)
 PHYS 2106: Physics II Lab (1 hour)
 DWHP 1200: Dimensions of Wellness (2 hours)
 PEHP Physical Education Activity (1 hour)
 RELS 1310: Intro to Theology* (3 hours)

Total Hours: 16

JUNIOR YEAR

Fall

MATH 2314: Differential Equations (3 hours)
 METR 3376: Atmospheric Dynamics (3 hours)
 METR 3310: Radar Meteorology (3 hours)
 PHIL or RELS course (3 hours)
 METR 3340: Hydrology (3 hours)
 HIST 1311: World History* (3 hours)

Total Hours: 15

*or other approved studies **from approved MATH selections

Spring

METR 3320: Forecasting I (3 hours)
 METR 3325: Thermodynamic Meteorology (3 hours)
 MATH Advanced Elective** (3 hours)
 PHIL 1381: Intro to Philosophy (3 hours)
 GEOL 1420: Oceanography (4 hours)

Total Hours: 16

SENIOR YEAR

Fall

MATH Advanced Elective** (3 hours)
 METR 3330: Forecasting II (3 hours)
 METR 4315: Air Pollution Meteorology (3 hours)
 METR 3365: Atmospheric Physics (3 hours)
 METR 3356: Synoptic Meteorology (3 hours)

Total Hours: 15

*choose from approved list

**choose from approved MATH selections

***choose from either METR 3355 Geographic Information Systems (GIS) in Meteorology,

METR 4330 Micrometeorology or METR 4340 Precipitation Physics and Weather Modification

Spring

METR 3391: Instrumentation (3 hours)
 METR 3190: Meteorological Instrumentation Lab (1
 hour)
 METR 3335: Severe Weather (2 hours)
 METR Advanced Elective*** (3 hours)
 Social Science* (3 hours)
 METR 4220: Capstone Meteorology (3 hours)

Total Hours: 15

132 hours needed to complete the B.S. in Meteorology.