Recommended Concentrations:

The motivation for these concentrations is that students have significantly more free course credit space in their schedules due to the reduced General Education requirements. Also, these concentrations represent the best preparations for careers in meteorology.

Note: If students will take any advanced CSC courses, it is recommended to take CSC 212 in addition to Met 310.

Graduate school (16-18 more credits):
- Take both MET 401 & 402 (use extra as met. elective)
- MET 499 – Independent Study (1-3 credits); graduate with Meteorology Honors
- MAT 230 – Matrix Algebra (3); this will help fulfill Math minor
- MAT 351 – Introduction to Forecasting (3)
- MAT 448 – Partial Differential Equations or PHY 335 – Mathematical Physics (3)
- CSC 320 – Numerical Methods or MAT 320 – Numerical Analysis I (3)
- CHE 212 – General Chemistry II (3)

Forecasting (4-9 more credits):
- MET 335 – Micrometeorology (use as met. elective)
- Take both MET 401 & 402 (use extra as met. elective)
- MET 420 – Broadcast Meteorology and Weather Forecasting (use as met. elective or 3 credits)
  - Independent study work involving numerical weather prediction (NWP) and remote sensing or Internship (1-6); or future NWP and GIS coursework

Risk Management (9 more credits):
- PSY 100 – Introduction to Psychology (General Education Social and Behavioral Science course)
- PSY 340 – Social Psychology (3)
- RMI 300 – Introduction to Risk Management and Insurance (3)
- COM 314 – Crisis Communication (3)

Broadcast (22 more credits):
- MET 420 – Broadcast Meteorology and Weather Forecasting (use as met. elective)
- AST 100 – Astronomy (3)
- GEO 100 – Physical Geology (3); take AST 100 and GEO 100 as those who go into this profession are considered “station scientists” and will be expected to know at least the basics about all natural phenomena
- BRC 108 – Introduction to Mass Media (General Education Social and Behavioral Science course)
  - BRC 215 – Broadcast Performance (3)
  - BRC 229 – Broadcast News Writing (3)
  - BRC 235 – Introduction to Video Production (3)
  - BRC 329 – Broadcast News Reporting (4)
  - COM 210 – Critical Thinking and Public Speaking (3)
    - recommended to work at WTOP and/or WNYO, and obtain an internship at a professional media outlet
      - though not as critical, also recommended to take ISC 110 (Intro. to Information Science) and CSC 335 (Programming the Web)

Private Industry (e.g., private weather forecasting companies; 18 – 30 more credits):
  - ECO 101 – Principles of Microeconomics (General Education Social and Behavioral Science course)
  - ECO 120 – Survey of Economic Issues (3)
  - MGT 261 – Business Organization (3)
  - MGT 460 – Leadership (3)
  - COM 210 – Critical Thinking and Public Speaking (3)
    - COM 211 – Strategic Communication in Business (3; need permission by instructor as reserved for School of Business students)/COM 360 – Persuasion (3; COM 100 and 210 prereqs. (6 more credits) or get permission by instructor)
  - MKT 250 – Marketing Principles (3)
  - ECO 390 – Environmental Economics (3; ECO 200 prereq. (3)); for those interested in working on environmental issues

Environmental Science/Climate Change (16/27 more credits):
Comment: A course in GIS would be good for this concentration.
  - MET 215 – Global Weather & Climate Catastrophes or MET 315 – Weather Disasters (3; MET 215 is a General Education World Awareness course)
  - MET 320 – Humans and Atmospheric Change (General Education World Awareness course)
    - MET 340 – Air Pollution (use as met. elective)
    - MET 365 – Tropical Meteorology (use as met. elective)
    - OCE 100 – Oceanography (3)
    - GEO 115 – Environmental Sustainability or PHY 305 – Energy and the Environment or SUS 115 – Economic and Political Foundations of Sustainability (3)
    - BIO 200 – Environmental and Population Biology or BIO 363 – Great Lakes Environmental Issues or CHE 300 – Environmental Science (3)
      - CHE 212 – General Chemistry II (4)
    - A chemistry minor is recommended as another option, including taking CHE 300 – Environmental Science (General Education World Awareness course), 473 (+L) – Environmental Chemistry (4), and associated prereqs. (total 24 credits)
-Note: Geology B.S Track II: Environmental Earth Sciences would only be ~27 more credits to double major with a Meteorology B.S.

**Computer Programming (18 more credits):**  
Comment: GIS and an NWP course would be recommended for this concentration.  
- CSC 241 – Abstract Data Types and Programming Methodology (3)  
- CSC 320 – Numerical Methods or MAT 320 – Numerical Analysis I (6 b/c MAT 230 prereq.)  
- CSC/ISC 335 – Programming the Web (6 b/c ISC 110 prereq.)  
- Choose one of the following: CSC 322 – Systems Programming or CSC 344 – Programming Languages or CSC 365 – Data Structures and File Processing or CSC 380 – Software Engineering or CSC 435 – Web Services or CSC 445 – Computer Networks or CSC 454 – System Simulation and Modeling (3)  
- Note: Also take CSC 221 (Foundations of Computer Science; 3), 222 (Computer Organization and Programming; 4), and 344 (Programming Languages; 3) for CSC minor

**Adolescent Education – Earth Sciences (30 more credits):**  
- AST 100 – Astronomy (3)  
- GEO 100 and 101 – Physical Geology and lab (4)  
- GEO 200 and 201 – Historical Geology and lab (4)  
- GEO 310 – Minerology (4)  
- GEO 330 – Structural Geology (4)  
- GEO 416 – Igneous and Metamorphic Petrology (4)  
- GEO 420 – Sedimentation and Stratigraphy (4)  
- HDV 323 – Adolescent Development or PSY 320 – Developmental Psychology (3; need to take approved General Education Social and Behavioral Sciences as prereq.)  
- Fine and Performing Arts General Education course (no extra credits)  
- Note: Need to apply for Masters of Science for Teachers (MST) to get certified to teach (need 2.7 min GPA; all above coursework required to have grades of C- or better)  
- Another recommendation is to just get the B.S. Meteorology degree and contact schools you are interested in attending about the requirements for an MST