

## MS in Physics with Concentration on Atmospheric Sciences

The Atmospheric Sciences Concentration is proposed for Physics MS students who want to pursue atmospheric sciences as a career and do Thesis or Project in Atmospheric Sciences. Students interested in Atmospheric Chemistry will have to follow the regular Physics MS required courses with electives to be selected by the faculty advisor.

| <b>A. Required Courses:</b>  | <b>Credits</b>                                |
|--|---|
| 1. PHYS 600 Classical mechanics  | 3   |
| 2. (a) PHYS 630 Statistical Mechanics or<br>(b) PHYS 615 Electromagnetism I                    | 3   |
| 3. PHYS 651 <sup>1</sup> Dynamic Meteorology   | 3   |
| 4. (a) PHYS 650 <sup>1</sup> Physical Meteorology or<br>(b) EES 785 Advanced Synoptic Analysis | 3   |
| 5. PHYS 740 Graduate Seminar   | 3   |
| 6. PHYS 792 MS Thesis or<br>PHYS 791 MS Project  | 6<br>3  |
| <b>Total required credits</b>  | <b>21 (18 for project option<sup>2</sup>)</b> |

### **B. Physics/EES Electives:**

PHYS 605 Mathematical Methods  
PHYS 650<sup>1</sup> Physical Meteorology  
PHYS 715 Electromagnetism I  
PHYS 715 Electromagnetism II  
PHYS 740 Graduate Seminar  
PHYS 745 Computational Physics  
PHYS 770 Research  
EES 785 Advanced Survey of Atmospheric Sciences  
EES 785 Numerical Weather Prediction  
EES 785 Climate Variability and Prediction  
EES 785 Advanced Synoptic Analysis  
EES 785 Mesoscale Meteorology  
EES 785 Tropical Meteorology  
EES 785 Storm Dynamics  
EES 785 Mesoscale Dynamics  
EES 785 Advanced Synoptic Analysis  
EES 785 Advanced Remote Sensing  
EES 785 Advanced Mesoscale Analysis

**Total Elective credits**

**9 (12 for project option<sup>2</sup>)**

<sup>1</sup>PHYS 650 (Physical Meteorology) and PHYS 651 (Dynamic Meteorology) need to be created and co-listed with EES 750 (Physical Meteorology) and EES 751 (Dynamic Meteorology), respectively.

<sup>2</sup>Total of 30 (33) credit hours are required to graduate for thesis (project) option.