

**Department of Atmospheric Sciences**

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February 4, 2019

MEMORANDUM

TO: Graduating Senior in Atmospheric Sciences  
FROM: Atmospheric Sciences Faculty  
SUBJECT: **Senior Comprehensive Examination**

The Department of Atmospheric Sciences requires that students achieve competency in three areas before graduation from UNCA: computer, major, and oral. Computer competency is satisfied by the completion of ATMS 230 or CSCI 183. This memorandum describes how major and oral competencies are satisfied as well as the schedule for each.

## Major Competency (Written Exam)

The major competency is satisfied through a **closed book** written examination consisting of two sections. The first section (weighted 40%) will test your general comprehension. All 60 questions will be multiple choice and taken from courses that every ATMS student was required to complete, regardless of concentration. The second section (weighted 60%) will comprise longer, “work ‘em out” type questions that will include two “core” questions taken from common courses and two additional “specialized” questions specific to your concentration. Broadcast and Weather Forecasting students will answer the “Forecasting” questions and Climatology students will answer the “Climatology” questions.

You will be provided access to a Moodle page in late February that will contain focus topics, associated notes, and the exam equation sheet. The equation sheet along with any required constants will be distributed on the exam day. Calculators are allowed and encouraged. A score of 70% or higher is considered passing. The exam will take place on **Friday, March 22, 2019 from 1:30 – 5:00 pm in RRO 238**. Section I and II will be administered separately, with a short break in between.

## Oral Competency

The oral competency is satisfied through one of the following (poster presentations are not eligible):

1. Satisfactory completion of the senior map discussion
2. Oral presentation of original scientific research at a UNC Asheville research symposium during your junior or senior year (must be witnessed and evaluated by at least one ATMS faculty member).
3. Oral presentation of original scientific research at a professional (e.g., AMS, AGU, NWA, NCUR) conference.
4. Other significant oral presentation (e.g., invited talk) - must be approved by ATMS faculty

Students who intend to fulfill the requirement through option 1 will lead a map discussion that will demonstrate fluency in operational meteorology and the ability to communicate to the public. Each will be limited to fifteen (15) minutes plus necessary time for questions. On the map discussion day, you will be assigned a time beforehand in which your access to data and imagery from a pre-selected case study is open. You will then have two (2) hours to prepare your presentation. All map discussions will occur on **Friday, April 12, 2019** in RRO 238. Specific times will be assigned in ATMS 411 before then. A score of 70% or higher is considered passing.

Students wishing to satisfy their oral competency by demonstrating fulfillment of options 2, 3, or 4 must be approved by ATMS faculty before the map discussion date. **All students** must complete the attached graduating senior competency application and return to Dr. Hennon by **Friday, March 22, 2019**.

## Examination Retakes

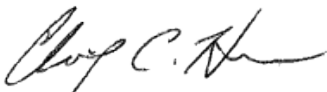
If a grade of less than 70% is received for the written exam, you will have one opportunity to retake the exam on **Friday, April 5, 2019** from 1:30 – 5:00 pm. Section I of the make-up exam will consist of approximately 40 identical questions and 20 new questions. In Section II, one question from both the core and specialized sections will be replaced with a new question. Note that sections are not graded separately and any retake requires that you answer all questions in both sections.

If a grade of less than 70% is received for the map discussion, you will have one more opportunity to achieve a passing score. The make-up map discussion will be scheduled with a new case study.

A second failure in the written or oral portions of the senior exam will prevent you from graduating in spring 2019. You will be required to register (with associated registration fees) for the summer 2019 term so that you may attempt to satisfy the senior competency.

Please do not hesitate to ask questions or seek clarification. We are all looking forward to celebrating your success as you progress toward graduation.

Regards,



Dr. Chris Hennon  
Professor and Chair, ATMS

Dr. Alex Huang  
Professor, ATMS

Dr. Doug Miller  
Professor, ATMS

Dr. Chris Godfrey  
Professor, ATMS

## Graduating Senior Competency Application

Name: \_\_\_\_\_

Today's Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Expected Graduation Date: \_\_\_\_\_

ATMS Track (if multiple, list the one you want to be tested on): \_\_\_\_\_

**Do you intend to complete the map discussion to satisfy the oral requirement?**      Yes/ No

If you answered "Yes", no further response is required. If you answered "No", please continue below.

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### Tell us how you will satisfy the oral competency (Circle)

Already Made a Presentation

Will Present at the UNCA Symposium

Will Present at a Professional Conference

Other

**If you already made a presentation, tell us about it.**

Venue: \_\_\_\_\_

Date: \_\_\_\_\_

Conference: \_\_\_\_\_

**Was it witnessed by any ATMS faculty?**      Yes    /    No

**Did you present original research?**      Yes    /    No

**If no, please describe the nature of the topic of your presentation.**

**If you will present at the UNCA symposium or professional conference, please list the conference and the date of the presentation.**

Please email any visual aids (PowerPoint slides) that you used in your presentation to Dr. Chris Hennon ([chenon@unca.edu](mailto:chenon@unca.edu)). Do not consider your oral competency fulfilled until you have received written confirmation from the ATMS faculty.