



**NOAA COOPERATIVE SCIENCE
CENTER IN ATMOSPHERIC
SCIENCES & METEOROLOGY**
EDUCATION RESEARCH IMPACT

NOAA Cooperative Science Center in Atmospheric Sciences and Meteorology II (NCAS-M II)

Fellow Handbook



Note: The NCAS-M II Fellow Handbook (2024-2025) serves as a guide to the operational procedures and processes of the NOAA Cooperative Science Center in Atmospheric Sciences and Meteorology II (NCAS-M II).

The handbook is a living document. NCAS-M II may change, delete, suspend, or discontinue parts of the handbook at any time without prior notice.

Every reasonable effort has been made to ensure the accuracy, reliability, and completeness of the procedures and processes found in the handbook. If any discrepancies exist between the information in this handbook and institution policies, the information at the institution shall take precedence.

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Introduction

This handbook was developed by the NOAA Cooperative Science Center in Atmospheric Sciences and Meteorology II (NCAS-M II) to guide fellows, faculty advisors, and NOAA mentors about the policies and procedures at NCAS-M II. The document provides: a) information about NCAS-M II (e.g., overview, mission, and structure), b) information for NCAS-M II fellows (e.g., requirements), and c) information regarding administrative and personnel policies and procedures.

I. NOAA Cooperative Science Center in Atmospheric Sciences and Meteorology II (NCAS-M II)

Overview

The **NOAA Cooperative Science Center in Atmospheric Sciences and Meteorology II** (NCAS-M II) is a cooperative science center (CSC) funded by the National Oceanic and Atmospheric Administration, Jose E. Serrano Educational Partnership Program with Minority Serving Institutions (NOAA EPP/MSI) Cooperative Agreement. The first part of this overview gives a background on NOAA, which is followed by an overview of NCAS-M II.

National Oceanic and Atmospheric Administration (NOAA)

[NOAA](#) is a bureau in the Department of Commerce and has roots in the Nation's first scientific agency, the Survey of the Coasts (1807). The current organization was formed in 1970.

NOAA's Mission:

To understand and predict changes in climate, weather, oceans, and coasts, to share that knowledge and information with others, and to conserve and manage coastal and marine ecosystems and resources. [More on NOAA's science, service, and stewardship.](#)

NOAA's Goals:

[NOAA long-term goals](#) are:

1. Climate Adaptation and Mitigation - *An informed society anticipating and responding to climate and its impacts.*
2. Weather-Ready Nation - *Society is prepared for and responds to weather-related events.*
3. Healthy Oceans - *Marine fisheries, habitats, and biodiversity sustained within healthy and productive ecosystems.*

4. Resilient Coastal Communities and Economies - *Coastal and Great Lakes communities that are environmentally and economically sustainable.*

NOAA Office of Education (NOAA OEd):

[NOAA OEd](#) coordinates education activities across NOAA and develops [NOAA's Education Strategic Plan and Policy](#). These efforts help ensure that NOAA's education program and activities are based on NOAA science and support the agency's cross-cutting priority of promoting environmental literacy efforts that directly benefit the NOAA mission. NOAA OEd implements and manages scholarship programs and offers competitive grant programs at the national and regional level.

NOAA Jose E. Serrano Educational Partnership Program with Minority Serving Institutions (NOAA EPP/MSI):

[NOAA EPP/MSI](#) administers financial assistance through competitive processes to Minority Serving Institutions (MSIs). The goal of NOAA EPP/MSI is to increase the number of students from underrepresented communities who are educated, trained, and graduate in fields that directly support NOAA's mission. NOAA/EPP/MSI is aimed at increasing programs and opportunities for individuals to pursue applied research and education in atmospheric, oceanic, and environmental sciences and remote sensing technology, in support of NOAA's mission.

NOAA Cooperative Science Center in Atmospheric Sciences and Meteorology II (NCAS-M II)

[NCAS-M II](#) is a Cooperative Science Center funded by the NOAA Jose E. Serrano Educational Partnership Program with Minority Serving Institutions Cooperative Agreement #NA22SEC4810015 and is aligned primarily with the [National Weather Service](#) (NWS). NCAS-M II is comprised of 8 institutions of higher education.

Partners: **Howard University** (lead), Jackson State University, San Jose State University, University at Albany - SUNY, University of Maryland Baltimore County, University of Maryland College Park, University of Puerto Rico-Mayaguez, and University of Texas-El Paso. The NCAS-M II partnership is a unique balance of minority-serving and majority-serving institutions located along the eastern seaboard, the southwest, the Gulf coast, and the United States (US) Caribbean.

The cooperative agreement and related activities under NCAS-M II are aimed at producing a diverse group of highly trained professionals for NOAA and the broader atmospheric and environmental sciences workforce.

NCAS-M II Mission:

The NCAS-M II mission is to increase the number of workforce-ready graduates from underrepresented communities in NOAA-related sciences, with an emphasis on scientific, technological, and societal challenges associated with atmospheric sciences and meteorology. The aim is for EPP-funded graduates to enter the NOAA mission workforce as hires by NOAA, NOAA contractors, NOAA partners, resource management agencies, academia, and entrepreneurs. Overall, the goal is to conduct education and research that directly supports NOAA’s mission to recruit, train, and graduate students particularly from underrepresented communities for the agency mission workforce.

NCAS-M II Personnel Roles and Responsibilities:

This section describes the roles and responsibilities of key NCAS-M II administrative staff (see Figure 1 and Table 1 for NCAS-M II key personnel contact information).

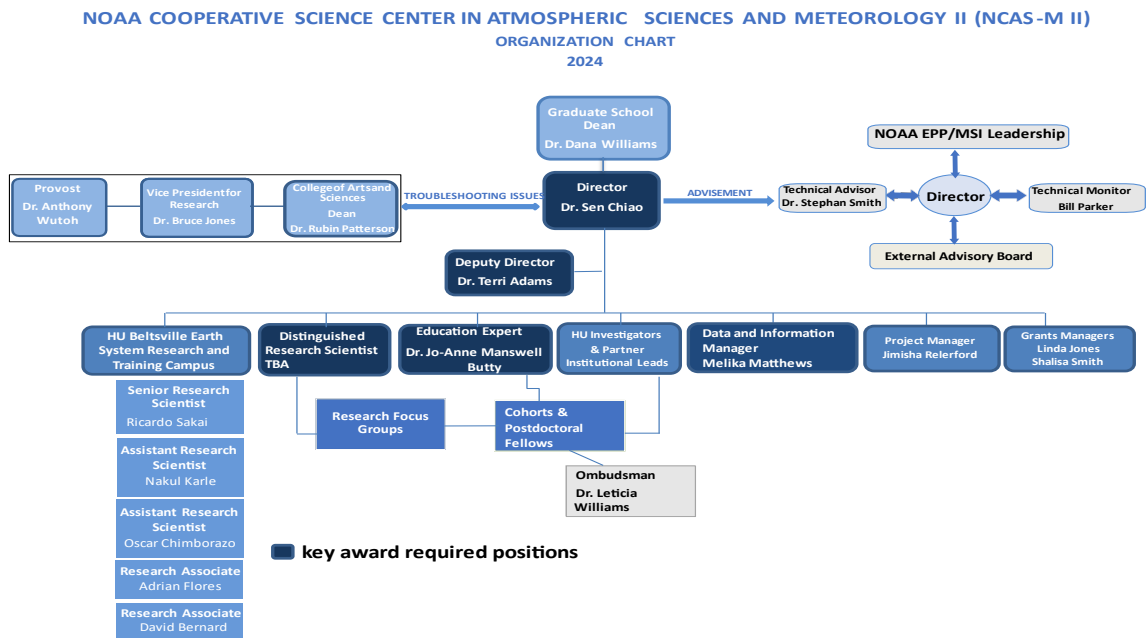
Table 1: Roles and Responsibilities of NCAS-M II Administrative Staff

| Person Primary / Position / Email | Roles / Key Responsibilities |
|--|--|
| <p>Sen Chiao Director sen.chiao@howard.edu</p> | <ul style="list-style-type: none"> • Overall leadership, administration, and planning • Consults with NOAA leadership • Primary liaison with NOAA Education • Engagement with NWS, Technical Monitors, and NOAA stakeholders |
| <p>Terri Adams Deputy Director tadams-fuller@howard.edu</p> | <ul style="list-style-type: none"> • Works with Director on administration and planning • Consults with NOAA leadership • Engagement with NWS, Technical Monitors, and NOAA stakeholders |
| <p>Jimisha Relerford Program Manager jimisha.relerford@howard.edu</p> | <ul style="list-style-type: none"> • Compliance assurance • Budget implementation • Office management • Subaward execution and monitoring • Grants online monitoring • |
| <p>TBD Distinguished Research Scientist</p> | <ul style="list-style-type: none"> • Coordination and advancement of center-wide research plan • Assessment of research productivity • Grantsmanship • Reporting on Center science |

| | |
|---|---|
| <p>Jo-Anne Manswell Butty Education Expert jmanswell-buty@howard.edu</p> | <ul style="list-style-type: none"> • Student communications • Planning and implementation of education and professional development programs • Reporting on E&PD • Student compliance • |
| <p>Ricardo Sakai Senior Research Scientist ricardo.k.sakai@howard.edu</p> | <ul style="list-style-type: none"> • Scientific management and operations at Beltsville • Coordination of student research at Beltsville • Grantsmanship |
| <p>Melika Matthews Data and Information Manager melika.matthews@howard.edu</p> | <ul style="list-style-type: none"> • Student tracker • Website • Center calendar of events |
| <p>Principal Investigators /Researchers</p> | <ul style="list-style-type: none"> • NCAS-M II partner institution lead investigators • Responsible for managing education and research training components at partner institutions, integration of the various components, and serve as the primary point of contact for NCAS-M II |

Figure 1 shows NCAS-M II Organizational Chart

Figure 1: NCAS-M II Organizational Chart



NCAS-M II Staff Contact Information and Offices

Table 2 provides contact information for NCAS-M II administrative staff.

Table 2: NCAS-M II Administrative Staff Contact Information

| NOAA Cooperative Science Center in Atmospheric Sciences and Meteorology II (NCAS-M II) 2400 6th St NW Washington, DC 20001 (202) 865-8678 Administrative Staff | | |
|--|----------------------------|--|
| TITLE | NAME | EMAIL |
| Director | Dr. Sen Chiao | sen.chiao@howard.edu |
| Deputy Director | Dr. Terri Adams | tadams-fuller@howard.edu |
| Project Manager | Ms. Jimisha Relerford | jimisha.relerford@howard.edu |
| Distinguished Research Scientist | TBD | TBD |
| Education Expert | Dr. Jo-Anne Manswell Butty | jmanswell-butty@howard.edu |
| Senior Scientist | Dr. Ricardo Sakai | ricardo.k.sakai@howard.edu |
| Data Manager | Ms. Melika Matthews | melika.matthews@howard.edu |

Table 3 provides information on key personnel (PIs and Co-PIs) at NCAS-M II 8 institutions.

Table 3: NCAS-M II Partnering Institutions - Key Personnel

| NCAS-M II Partner Institutions Key Personnel | | | |
|---|--|---|--|
| | NAME | PRINCIPAL INVESTIGATOR & RESEARCHERS | EMAIL |
| 1 | Howard University (HU) | Dr. Sen Chiao Dr. Terri Adams Dr. Osinachi Ajoku Dr. Ricardo Sakai Dr. Tia Tyree | sen.chiao@howard.edu tadams-fuller@howard.edu osinachi.ajoku@howard.edu ricardo.k.sakai@howard.edu ttyree@howard.edu |
| 2 | Jackson State University (JSU) | Dr. Loren White Dr. Duanjun Lu Dr. Remata Reddy | loren.d.white@jsums.edu duanjun.lu@jsums.edu remata.s.reddy@jsums.edu |
| 3 | San Jose State University (SJSU) | Dr. Qian Tan | qian.tan@sjsu.edu |
| 4 | University at Albany, State University of NY (UAlbany) | Dr. Christopher Thorncroft | cthorncroft@albany.edu |
| 5 | University of Maryland Baltimore County (UMBC) | Dr. Belay Demoz | bdemoz@umbc.edu |
| 6 | University of Maryland, College Park (UMD) | Dr. Xin-Zhong Liang | xliang@umd.edu |
| 7 | University of Puerto Rico, Mayaguez (UPRM) | Dr. Hector Jimenez | hectorj.jimenez@upr.edu |
| 8 | University of Texas, El Paso (UTEP) | Dr. Rosa Fitzgerald Dr. Thomas Gill Dr. William Stockwell | rfitzgerald@utep.edu tegill@utep.edu william.r.stockwell@gmail.com |

NCAS-M II Fellowship Program

The primary focus of NCAS-M II is to build capacity, train, and graduate traditionally marginalized groups in NOAA mission sciences, more specifically in atmospheric sciences and meteorology. Also, to equip students to make a strong contribution to the NOAA workforce. The following is a description of requirements for fellows at different levels.

Program Requirements

- a. Full-time status as an undergraduate or graduate student
- b. Enrollment at one of the eight NCAS-M II partner institutions
- c. U.S. citizenship
- d. Minimum 3.0 grade point average (GPA) every semester
- e. Major in a NOAA mission discipline in Atmospheric Science and Meteorology and/or social, behavioral, or economic (SBE) sciences
- f. Fulfill core curriculum requirements of [GS-1340](#)

Fellowship recipients must complete at least 24 semester hours (36 quarter hours) in meteorology/atmospheric science to include courses in atmospheric dynamics, synoptic/mesoscale, physical meteorology, remote sensing/ instrumentation, and differential equations.

Social, Behavioral, and Economics (SBE) students are required to complete academic coursework and attend enrichment/training/professional development activities as outlined for the fellowship.

Graduate fellows must complete a NOAA Experiential Research and Training Opportunity (NERTO): a 12-week graduate internship at a NOAA facility under the direction of a NOAA mentor.

Undergraduate fellows are highly encouraged to complete an EPP/MSI CSC Undergraduate Internship-at-NOAA (UG Internship-at-NOAA): a 10-week summer internship at a NOAA facility under the direction of a NOAA mentor.

NCAS-M II Baccalaureate Fellows (BF)

During the academic year, BF students will successfully complete their coursework, participate in NCAS-M II orientations, collaborate actively with a professor to be mentored, select and work on a NOAA mission-aligned research project, and attend required NOAA mission-aligned enrichment activities (Table 4).

EPP/MSI CSC Undergraduate Internship-at-NOAA provides NCAS-M II undergraduate fellows with a 10-week intensive summer internship at a NOAA facility, under the direction of a NOAA mentor. Though not required, all NCAS-M II undergraduate fellows are strongly encouraged to participate in this specialized internship (see description in Appendix B). The NCAS-M II Education Expert and Distinguished Research Scientist work together to coordinate and facilitate this required activity.

UG Internship-at-NOAA requirements include:

- highly encouraged participation
- 10-week summer internship
- internship at a NOAA facility with a NOAA mentor
- presentation of internship research at the NOAA Science and Education Symposium
- receipt of a Certificate of Direct Hire when fellow graduates

Additionally, BF students will be required to:

1. Complete the Individual Student Development Plan (SDP) in collaboration with their NCAS-M II faculty advisor (i.e., planning form, fall progress report, spring progress report, summer progress report),
2. Participate in center-wide trainings and enrichment activities (i.e., NOAA Skills and Competencies Training at NCAS-M II and seminars), and
3. Attend the Annual Center-wide Cohort Experience (ACE).

NCAS-M II Graduate Fellows (GF) (Master's and Doctoral)

During the academic year, GF students will successfully complete their coursework, participate in NCAS-M II orientations, collaborate actively with a professor to be mentored, select and work on a NOAA mission-aligned research project, and attend required NOAA mission-aligned enrichment activities (Table 4).

NCAS-M II GF will also be required to engage in activities that require inter- and intra-institution collaboration and teaming to a) participate in NOAA Experiential Research and Training Opportunities (NERTO) or mission-relevant experiential training (see description in Appendix A).

NERTO requirements include:

- required participation for graduate students
- 12-week summer internship
- internship at a NOAA facility with a NOAA mentor.
- presentation of internship research at the NOAA Science Seminar
- receipt of a Certificate of Direct Hire when fellow graduates

Additionally, GF students will be required to:

1. Complete the Individual Student Development Plan (SDP) in collaboration with their NCAS-M II faculty advisor (i.e., planning forms, fall progress report, spring progress report, summer progress report),
2. Participate in center-wide trainings and enrichment activities (i.e., NOAA Skills and Competencies Training at NCAS-M II and seminars), and
3. Attend the Annual Center-wide Cohort Experience (ACE).

NCAS-M II Core Competencies

Core competency attainment is a goal at NCAS-M II and captured in various required NCAS-M II fellow education and training activities e.g., summer NOAA mission-relevant research and training for undergraduates, NERTO experience for graduate fellows, participation and presentations at professional meetings, and monthly research seminars. Students are required to acknowledge NCAS-M II when presenting or publishing their research (Appendix A).

The following are three core NOAA mission-aligned skills and competencies that are an integral aspect of education and training activities.

- a. Ability to conduct translatable data science and social competencies to communicate impact of NOAA NWS mission services and products;
- b. Ability to experience and conduct R&D projects from end-to-end; and
- c. Ability to identify, prepare, analyze, interpret, and convey the impacts to decision makers and the public.

The levels of competence for the NOAA mission-aligned skills and competencies are:

- 1 = Awareness
- 2 = Understanding of fundamentals and some initial practical application
- 3 = Solid conceptual understanding and some practical application
- 4 = Significant conceptual knowledge and practical experience in performing a competency to a consistently high standard
- 5 = Extensive knowledge, refined skill, and prolonged experience (minimum of 3 years) in performing the defined competency at the highest standard

To ensure that fellows attain the skills and competencies, training sessions/seminars include formal assessments completed on a Learning Management System (LMS) (e.g., Canvas or Google Classroom). Assessments include pre- and post-tests, application articles, case studies, and post training questions. Fellows are also provided with rubrics to ensure that they are responding to assessments completely. The assessments ensure that fellows are mastering the skills and competencies presented during the trainings/seminars.

Table 4: NCAS-M II Education and Training Requirements for NCAS-M II Student

| Level | Education and Training Requirements ¹ |
|----------------------|---|
| Baccalaureate | All Undergraduate fellows are required to: <ul style="list-style-type: none"> a) complete the Individual Student Development Plans (SDP) (planning form, and fall, spring, and summer progress reports) b) complete <u>one</u> EPP/MSI CSC Undergraduate Internship-at-NOAA (UG Internship-at-NOAA) (highly encouraged)* c) participate in NOAA Skills and Competencies Trainings at NCAS-M II d) participate in the Center-wide Cohort Experience (ACE) e) attend center-wide NOAA mission-aligned trainings and seminars f) have <u>one</u> faculty advisor and <u>one</u> NOAA mentor |
| Graduate | All Graduate fellows are required to: <ul style="list-style-type: none"> a) complete the Individual Student Development Plans (SDP) (planning form, and fall, spring, and summer progress reports) b) complete <u>one</u> NOAA Experiential Research and Training Opportunity (NERTO)* c) participate in NOAA Skills and Competencies Trainings at NCAS-M II d) participate in the Center-wide Cohort Experience (ACE) e) attend center-wide NOAA mission-aligned trainings and seminars f) have <u>one</u> faculty advisor and <u>one</u> NOAA mentor |

*NCAS-M II undergraduate and graduate fellows who complete a UG Internship-at NOAA / NERTO are eligible for Direct Hire and will receive Direct Hire Certificates after they graduate. The Certificate for Direct Hire comes from NOAA EPP/MSI. That office will email the certificate to the Center Director. It will then be sent to qualifying fellows. The Direct Hiring Authority (DHA) expedites the hiring process and allows for a greater chance of hiring qualified applicants by eliminating competitive rating and ranking with other Federal employees and by removing veterans’ preference. NOAA’s Administrator is committed to utilizing the DHA to increase recruitment of graduates supported by NOAA scholarship, fellowship, and internship programs to its early career workforce. Emphasis is placed on identifying qualified candidates from traditionally underrepresented and historically excluded communities.

NCAS-M II Undergraduate and Graduate Fellowship Program

The NCAS-M II Fellowship Program supports NCAS-M II postsecondary student fellows (undergraduate and/or graduate) financially. NCAS-M II fellows are grouped by cohorts. Cohorts are established when students enter the program annually (i.e., students entering the NCAS-M II program in 2022-2023 will be assigned to Cohort 1, students entering in 2023-2024 will be assigned to Cohort 2, and so on).

¹ All program activities (e.g., attending professional meetings) are contingent on funds

Please see Appendix B for NCAS-M II Fellow requirements as noted in the Student Contract/Letter of Understanding.

Mentorship

NCAS-M II Faculty Advisor and NOAA Mentor

Each NCAS-M II undergraduate and graduate fellow must have an NCAS-M II faculty advisor and NOAA mentor. The role of the NOAA mentor collaborating with the NCAS-M II faculty advisor, is to assure the NOAA mission-relevance of the fellow's experiential training and project. The NOAA mentor will also provide and/or support guidance to enhance the development of skills and competencies for the NOAA mission workforce.

This section highlights the requirements for the NCAS-M II Faculty Advisor and NOAA Mentor:

1. Each NCAS-M II undergraduate and graduate fellow will be assigned a NCAS-M II faculty advisor and NOAA mentor.
2. The NCAS-M II faculty advisor and NOAA mentor will collaborate to assure NOAA mission-relevance of fellow's research and familiarize the fellow with NOAA workplace culture and expectations.
3. NOAA mentors will be solicited from NOAA line offices and recommended by NCAS-M II faculty advisors and NOAA EPP/MSI.
4. The NCAS-M II mentoring program between NCAS-M II faculty advisors and NOAA mentors will take place during student experiential training opportunities (i.e., NERTO and UG Internship-at-NOAA). Guidance for NOAA mentors can be found [here](#).
5. NOAA mentors are required to complete Mentor training available at the [Commerce Learning Center](#) (CLC). The program recommends: "Fostering Mentoring Relationships" or other available CLC mentoring or coaching courses.
6. NCAS-M II faculty advisors meet initially during NCAS-M II fellow orientation and then monthly at NCAS-M PI staff meetings to receive information and updates for mentoring fellows.
7. NCAS-M II faculty advisors and NOAA mentors will expose NCAS-M II fellows to both formal and informal mentoring opportunities (e.g., with researcher and scientist at annual professional meetings and other informal professional events).

NCAS-M II Faculty Advisors are advised to:

- Serve as a role model and resource person for a fellow.
- Check in with fellows about their participation and engagement in NCAS-M II activities.
- Check in with fellows about their academic progress.
- Advise and provide guidance and feedback to fellows on research, career, and professional issues related to their academic, research, and career development.

NOAA Mentors are advised to:

- Serve as a mentor for a fellow completing NOAA-mission internships (i.e., UG Internship-at-NOAA / NERTO).
- Collaborate with the NCAS-M II faculty advisor, Distinguished Research Scientist, and Education Expert when fellows are completing NOAA-mission internships (UG Internship-at-NOAA / NERTO).
- Provide guidance and feedback to fellows on research, career, and professional issues while they are completing UG Internship-at-NOAA / NERTO.
- Serve as an official member of a student's graduate degree committee if he or she is appropriately accredited and meets the institutional academic program requirements.

Ombudsman

Because of the interinstitutional, interdisciplinary, and collaborative nature of NCAS-M II, it can be sometimes unclear to identify who students should reach out to for help with issues within the Center. As a result, NCAS-M II has identified Dr. Leticia Williams (leticia.williams@noaa.gov) to serve as Ombudsman for the Center.

Leticia Williams, PhD

Program Specialist

University Corporation for Atmospheric Research (UCAR)

NOAA - National Weather Service

1325 East-West Highway

Silver Spring, MD 20910

leticia.williams@noaa.gov

The ombudsman can be consulted by NCAS-M II fellows who want information about NCAS-M II policies relating to their activities or who encounter problems that they cannot resolve through ordinary means (e.g., fellow to NCAS-M faculty member and/or staff). The ombudsman will listen to concerns, brainstorm strategies to address the concerns, provide resources and information, and try to assist in addressing the concerns. Sometimes the ombudsman will simply listen and help to develop strategies for addressing concerns. At other times, the ombudsman will contact other involved parties at NCAS-M II and attempt to work out mutually satisfactory solutions. The ombudsman follows the standards of practice outlined by the [International Ombudsman Association](#).

II. Administration and Personnel

Overview

All NCAS-M II fellows are required to become familiar with NCAS-M's policies and procedures during and after the fellowship. All fellows are expected to follow NCAS-M II policies and procedures while pursuing their academic and professional goals and conducting any NCAS-M-related business.

NCAS-M II Fellowship Application

Prospective fellows must apply to [NCAS-M II](#) by completing the [NCAS-M II Fellowship Application Form](#). Documents to be uploaded to the online application include - resume, transcript, cover letter, and proof of citizenship.

On Receiving NCAS-M II Fellowship

On receiving an offer as a Fellow, NCAS-M II may conduct a comprehensive background check for education confirmation. You will be asked to complete/sign the following:

- **Offer Letter:** Formal acceptance of NCAS-M II support.
- **Letter of Understanding (LOU):** The LOU lays out the terms and conditions for a NCAS-M II Fellowship (see Appendix C).
- **Fellow Contact Form:** This form collects contact and background information on the fellow (see Appendix G).
- **NCAS-M Likeness & Profile Release Form to NOAA:** This signed form gives permission for fellows' photographs, videos, or audio recordings to be used.
- **W-9 and ACH Forms:** These forms are required for travel and reimbursement.

During NCAS-M II Fellowship

To maintain a cordial and productive working relationship, the fellow is expected to adhere to the rules, regulations, and responsibilities of the student contract/ Letter of understanding (see Appendix C), to be professional, to meet deadlines for submitting required documentation, and to observe rules and procedures pertaining to academics and NCAS-M II requirements.

Travel Procedures

Travel for professional meetings or research must be recommended by your faculty advisor and approved by the NCAS-M II director, in advance.

NCAS-M II will provide financial support to students giving oral/poster presentations, registered for workshops/trainings, and/or volunteering at professional meetings.

Please complete the [NCAS-M II Fellow Travel Request Form](#) in advance of travel that will be approved by the NCAS-M II faculty advisor and director.

Please complete the [NCAS-M II Fellow Travel Report Form](#) after travel that will be approved by the NCAS-M II faculty advisor and director.

On Completing NCAS-M II Fellowship

In situations where fellows voluntarily or involuntarily separate from NCAS-M, they are expected to comply with NCAS-M's expectations for completing the fellowship.

NCAS-M II makes all efforts to ensure longevity of employment relationships by appropriately matching fellows with advisors and mentors. However, if NCAS-M II determines that a fellow's performance does not improve despite continued support, or if the fellow repeatedly violates NCAS-M II practices, rules, or standards of conduct, the fellow's tenure with NCAS-M II will be terminated (see Letter of Understanding, Appendix C).

In a voluntary separation situation, NCAS-M II requests that the fellow provide a two-week notice prior to the day of departure. In addition, NCAS-M II would like to conduct an [exit interview](#) to discuss the Fellow's reasons for leaving and any other impressions that the Fellow may have about the project.

Any NCAS-M II property issued to the fellow must be returned to NCAS-M II at the time of exit. The materials can be given to the NCAS-M II faculty advisor, program manager, or director.

Also, be aware that all NCAS-M II fellows will be tracked for three years upon leaving the program for any reason. Data collected will include post NCAS-M II employment/career and education information.

III. NCAS-M II Website and Social Media Profiles

A student center link can be found on the NCAS-M II website (ncas-m.org). From this link, fellows/students will be able to obtain information about NCAS-M II and upload required documents (e.g., [Individual Student Development Plans – SDP](#), [Likeness and Profile Release to NOAA](#), and other required forms).

NCAS-M II has multiple social media platforms to help faculty, students, staff, and stakeholders stay connected and learn about all its activities. Please connect and follow the sites to stay abreast of NCAS-M II program news and use the platforms to share photographs, updates, and milestones about your academic pursuits.

The official NCAS-M II website and social media accounts are at the following sites:

| | |
|------------------|---|
| Website | http://ncas-m.org |
| X/Twitter | @NCASNews |
| Instagram | @NCASNews |
| Facebook | @NoaaCenterForAtmosphericSciences |
| LinkedIn | @NCAS-M NOAA Coop Science Center for Atmos and Meteorology |

IV. Appendices

- A. EPP/MSI CSC Undergraduate Internship-at-NOAA (UG Internship-at-NOAA) and NOAA Experiential Research and Training Opportunity (NERTO) Descriptions
- B. NCAS-M II Acknowledgement Guidelines
- C. NCAS-M II Student Contract/Letter of Understanding

APPENDIX A

UG Internship-at-NOAA and NERTO Programs

Overview

The NOAA EPP/MSI CSC Undergraduate Internship-at-NOAA (UG Internship-at-NOAA) is a 10-week intensive summer internship at a NOAA facility, under the direction of a NOAA mentor. Though not required, all NCAS-M II undergraduate students are strongly encouraged to participate in this specialized internship.

The NOAA Experiential Research and Training Opportunity (NERTO) is a NCAS-M II graduate student requirement during the fellowship. This unique NOAA mission experience integrates academics with practical NOAA mission-relevant experiential training. The NERTO experience must be completed by NCAS-M II fellows at a NOAA facility under the guidance of a full-time NOAA employee and must be a minimum of twelve weeks for graduate students.

UG Internship-At-NOAA - Important Information

1. The internship start date is negotiated between the NOAA Host Mentor and NCAS-M II.
2. The EPP/MSI undergraduate internship is to be completed in a minimum of 10 contiguous weeks.
3. The EPP/MSI undergraduate intern is required to complete a five-day 40 hours per week schedule.
4. Support for the intern to complete the EPP/MSI undergraduate internship and monitoring of progress are the responsibilities of NCAS-M II.
5. For the EPP/MSI undergraduate internship, badging, network access, and connectivity to host to complete internship activities are the responsibility of the NOAA Host Mentor.
6. A 10-week EPP/MSI undergraduate internship workplan is required. The final EPP/MSI Internship Work Plan and dates must be shared with EPP/MSI Program Office before the internship begins.
7. All CSC-award supported EPP/MSI CSC interns must meet all internship requirements and performance expectations for the in-residence NOAA experiential opportunity.
8. The NOAA EPP/MSI CSC intern presents the internship results at the NOAA Science and Education Symposium that is scheduled through the NOAA Office of Education EPP/MSI Program.

NERTO - Important Information

The [NERTO online resources](#) are available to aid in navigating through the EPP/MSI NERTO experience. Of note:

1. The internship start date is negotiated between the NOAA Host Mentor and NCAS-M II.
2. The EPP/MSI NERTO is to be completed in a minimum of 12 contiguous weeks.
3. The EPP/MSI NERTO intern is required to complete a five-day 40 hours per week schedule.
4. Support for the intern to complete the EPP/MSI NERTO graduate internship and monitoring of progress are the responsibility of NCAS-M.
5. For the EPP/MSI NERTO internship, badging, network access, and connectivity to host to complete internship activities are the responsibility of the NOAA Host Mentor.
6. A 12-week EPP NERTO graduate internship workplan is required. The Final EPP/MSI NERTO Internship Work Plan and dates must be shared with EPP/MSI Program Office before the NERTO internship begins.
7. All NERTO interns must meet all internship requirements and performance expectations for the in-residence NOAA experiential opportunity.

8. The NOAA EPP/MSI CSC intern presents the EPP/MSI NERTO internship results at the NOAA Science Seminar Series that is scheduled through the NOAA Office of Education EPP/MSI Program.

NOAA EPP/MSI requests that each NCAS-M supported fellow completing the EPP/MSI UG Internship-at-NOAA / NERTO understand they are:

- NOAA EPP/MSI-supported;
- aspiring professionals who are bringing value to the hosting NOAA office/lab and gaining knowledge and skills in NOAA mission areas;
- to avail themselves of NCAS-M II professional development opportunities such as professional correspondence development, resume writing, planning for manuscript development, etc. before, during, and after the EPP/MSI NERTO internship;
- supported in the EPP/MSI NERTO internship and as an NCAS-M II Fellow will continue to be supported, as allowable with award funds;
- to be familiar with the [NERTO resources](#) accessible online;
- aware that any EPP/MSI NERTO period is a minimum of 12 contiguous weeks and a maximum duration of 12 months as determined by NCAS-M; and,
- NOAA EPP/MSI has the highest expectations for the investment in each student and their successful NERTO internship.

NOAA EPP/MSI requests that all NCAS-M II students participating in an EPP/MSI UG Internship-at-NOAA / NERTO graduate internship, must have the email signature block below:

First Name Last Name
 NOAA EPP NERTO/ UG Internship-at-NOAA Intern
 NOAA CSC Fellow or Scholar (Cohort #)
 NOAA NERTO Hosting Office
 Address and Phone/eMail Details
 NOAA Award # NA22SEC48100015

<<Sample>>
 June Smith
 NOAA EPP NERTO/ UG Internship-at-NOAA Intern
 NOAA NCAS-M II Graduate Scholar (Cohort 3)
 NOAA OAR ATDD
 Memphis, TN 12345
 june.smith@noaa.gov
 Ph. 123-456-7890
 NOAA Award # NA22SEC48100015

FAQs

1. **How are NCAS-M II students prepared prior to UG Internship-at-NOAA / NERTO?**

- NOAA 101 Briefing
- Distinguished Research Scientist (DRS) and Education Expert (EE) meet with students individually (*discuss interests, responsibilities, and expectations on both sides*)
- Fellow's advisor meets with student (*discuss research topics and rules of engagement during NERTO*)
- DRS, EE, and Institutional Advisor meet with students prior to NERTO to discuss roles and responsibilities during UG INTERNSHIP-AT-NOAA/NERTO
-

2. **What is the role of NCAS-M II during UG Internship-at-NOAA / NERTO?**

- Weekly check-ins during NERTO (DRS, EE, and Institutional Advisor) check-in weekly with student. If follow-up or off-line check-ins are necessary, they will also be done.
- Bi-weekly check-ins during NERTO (Institutional Advisor) check-in bi-weekly with NOAA mentor by email (copy DRS and EE). If follow-up or off-line check-ins are necessary, they will also be done.

3. **What are students' responsibilities at the end of UG Internship-at-NOAA / NERTO?**

- Student completes UG Internship-at-NOAA/NERTO Final Performance Report that should be reviewed by Institutional Advisor before submission to EE with copy to DRS and Deputy Director.
- Student present research at the NOAA Science and Education Symposium (UG Internship-at-NOAA) or NOAA Science Seminar (NERTO).

4. **Does the NOAA site fund NCAS-M II fellows?**

- No, NCAS-M II fellows are already funded through their NCAS-M II fellowship for the NERTO experience.

5. **Would the NCAS-M II fellow be working on one specific project, projects assigned through their program, or projects as assigned through the office?**

- Fellows will be working with their NOAA mentors on the research projects outlined in their approved UG Internship-at-NOAA /NERTO Workplan.

6. **When should NCAS-M II fellows complete their UG Internship-at-NOAA / NERTO experience?**

- The UG Internship-at-NOAA /NERTO experience must be completed before the fellowship ends.

7. **Is there a specified time to complete the UG Internship-at-NOAA / NERTO experience?**

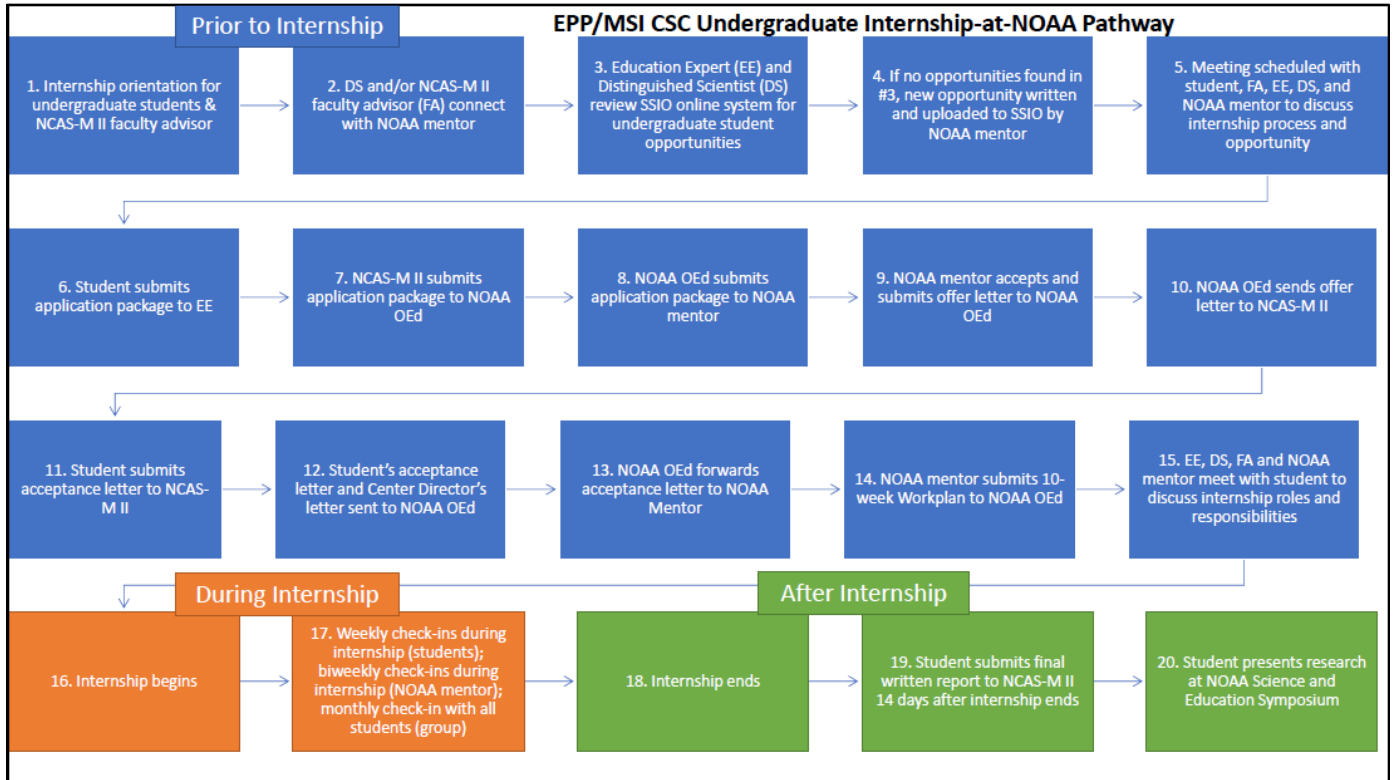
- The NERTO experience must be a minimum of twelve weeks. It can be longer based on the project and approval from the Center Director, NCAS-M II fellow's faculty advisor, and NOAA mentor.

NERTO Resources

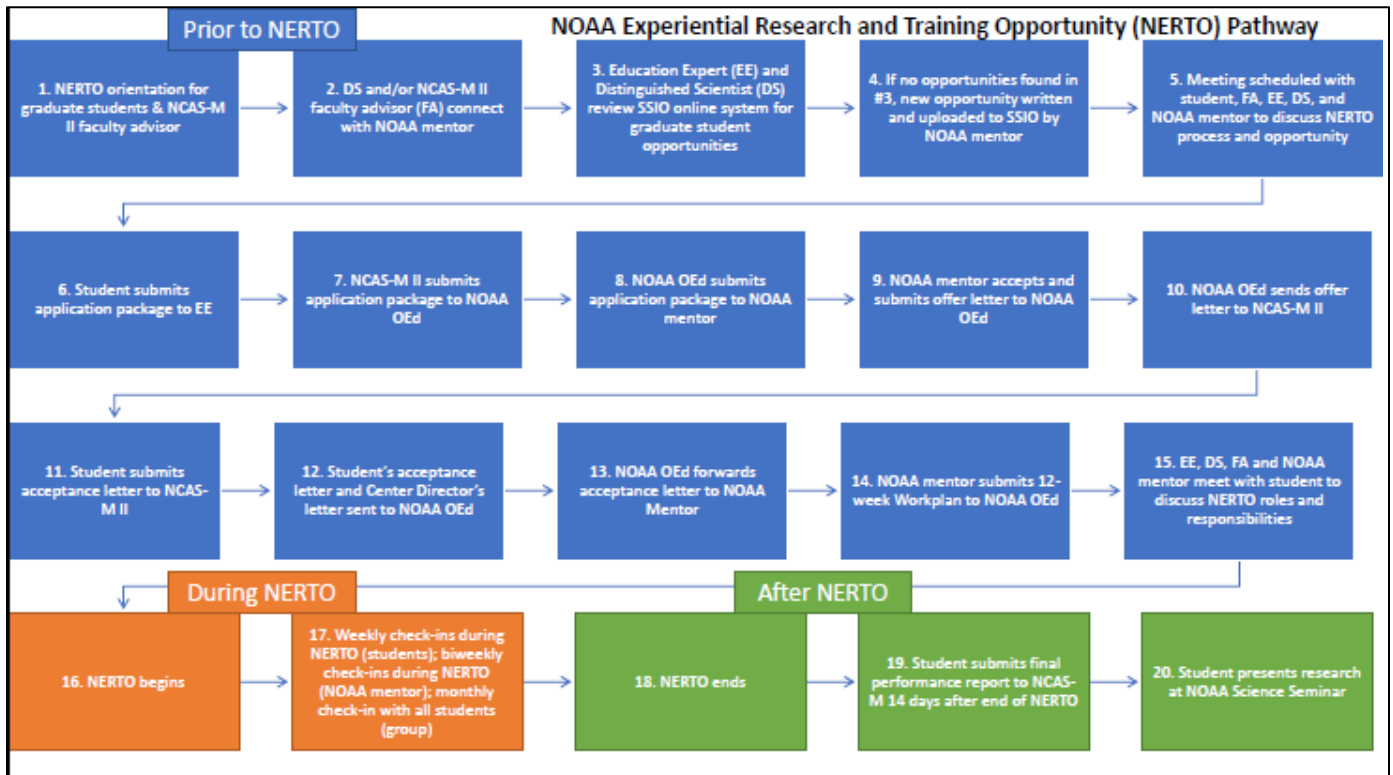
THE NOAA Office of Education recommends a review of the available resources for [CSCs](#), [NOAA Mentors](#), and [CSC-supported students](#):

For more information, please contact Jo-Anne Manswell Butty, PhD, NCAS-M II Education Expert – jmanswell-butty@howard.edu | (202) 865-8537

EPP/MSI CSC Undergraduate UG Internship-at-NOAA (UG Internship-at-NOAA) Pathway



NCAS-M II NOAA Experiential Research and Training Opportunity (NERTO) Pathway



APPENDIX B

NOAA Cooperative Science Center in Atmospheric Sciences and Meteorology (NCAS-M)

Acknowledgment Guidelines

<http://ncas-m.org/wp-content/uploads/2019/09/Acknowledgement-Guidelines.pdf>

“NCAS-M II is funded by NOAA/EPP Cooperative Agreement #NA22SEC4810015”

REQUIRED DISCLAIMERS

Disclaimers - All publications in scientific journals must contain acknowledgement of NOAA EPP support with the appropriate award number and the following statement: *"This publication was made possible by the National Oceanic and Atmospheric Administration, Office of Education Educational Partnership Program award. Its contents are solely the responsibility of the award recipient and do not necessarily represent the official views of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration."* In addition, all publications, and other materials, except scientific articles or papers published in scientific journals, must contain the following statement: *"Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration."*

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APPENDIX C

Student Contract/Letter of Understanding NCAS-M II Student Fellowship

Undergraduate and Graduate Fellowship Program

NOAA Cooperative Science Center in Atmospheric Science and Meteorology II (NCAS-M II)

Undergraduate and Graduate Fellowship Program

Letter of Understanding/Contract

The primary goal of the NOAA Cooperative Science Center in Atmospheric Sciences and Meteorology II (NCAS-M II) is to use collaborative research as a mechanism to educate and produce a highly skilled cadre of technical and environmentally literate professionals, with a focus on underrepresented populations, who will directly contribute to the NOAA workforce through science, service, and stewardship.

The goal of the NCAS-M II Fellowship is to support advanced training and matriculation of students in NOAA mission-related sciences focused on atmospheric science and meteorology.

I accept this support with the understanding of the program and fellowship goals. In accepting the NCAS-M II Fellowship, I agree to abide by the following rules, regulations, and responsibilities:

1. I am aware that training and research while in the program require deliberate integration of NOAA-mission research focused on atmospheric science and meteorology.
2. I am aware that the NCAS-M II fellowship requires the following to receive program funding:
 - a. Full-time status as an undergraduate or graduate student
 - b. Enrollment at one of the nine NCAS-M II partner institutions
 - c. U.S. citizenship
 - d. Minimum 3.0 grade point average (GPA) every semester
 - e. Major in a NOAA mission discipline in Atmospheric Science and Meteorology and/or social, behavioral, or economic (SBE) sciences.
 - f. Fulfilling core curriculum requirements of [GS-1340](#)
3. I understand that I am expected to exhibit the highest level of academic integrity, honesty, and respect toward self and others always.
4. I understand that the NCAS-M II Fellowship program is an educational and financial support program that requires participation in education, research, training, and professional development activities designated by the Center.

5. I understand that the NCAS-M II fiscal year begins September 1 of each year and ends August 31 of the following year. I further understand that the Fellowship will be administered during this timeframe with the specified dates on my award letter.
6. I understand that I must complete at least 24 semester hours (36 quarter hours) in meteorology/ atmospheric science to include courses in atmospheric dynamics, synoptic/mesoscale, physical meteorology, remote sensing/ instrumentation, and differential equations.
7. I understand that graduate students must complete a NOAA Experiential Research and Training Opportunity (NERTO) that is a 12-week graduate internship at a NOAA facility with a NOAA employee. At the end of NERTO, students must submit a final report and present the results at the NOAA Science Seminar.
8. I understand that undergraduate students are highly encouraged to complete an EPP/MSI CSC Undergraduate Internship-at-NOAA(UG Internship-at-NOAA) that is a 10-week summer internship at a NOAA facility under the direction of a NOAA mentor. At the end of UG Internship-at-NOAA, students must present the results at the NOAA Science and Education Symposium.
9. I understand that all NERTOs and UG Internship-at-NOAAs must be approved in advance of their start date in writing by the NOAA Office of Education, NCAS-M II Director, NCAS-M II faculty advisor, and NCAS-M II Education Expert.
10. I understand that the NCAS-M II Fellowship will pay tuition (at least 75%) and/or a stipend based on a student's classification:
 - Doctoral student can receive tuition and/or stipend for no more than 5 years
 - Master's student can receive tuition and/or stipend for no more than 3 years
 - Undergraduate student can receive tuition and/or stipend for no more than 4 years

Annual renewal during the fellowship period will be based upon academic standing, research progress, and fulfilment of NCAS-M II program requirements.
11. I understand that the NCAS-M II Fellows will be funded for a maximum of 5 years (doctoral student), 3 years (master's students) and 4 years (undergraduate students), and all Graduate Fellows are expected to participate full-time during each summer.
12. I understand that all graduate students must engage in a 12-week NOAA Experiential Research and Training Opportunity (NERTO) before their tenure as a NCAS-M II Fellow ends. All undergraduate students are highly encouraged to complete a 10-week UG Internship-at-NOAA before their tenure as a NCAS-M II Fellow ends. The following dollar amounts are allocated to help defray the extra cost of expenses and travel that might be incurred when completing the NERTO / UG Internship-at-NOAA.
 - Doctoral – up to \$10,000 NOAA mission research support; \$10,000 NERTO; \$5,000 travel
 - Master's – up to \$8,000 NOAA mission research support; \$10,000 NERTO; \$4,000 travel
 - Undergraduate – up to \$9,000 UG Internship-at-NOAA; \$4,000 travel

13. I understand that NCAS-M II is not obligated to pay or reimburse for repeat courses.
14. I understand I must attend at least one (1) professional meeting or research-related travel once per year. This travel will be supported by funds from the award given to each institutional partner.
 - Attendance to the American Meteorological Society (AMS) conference is strongly advised before your tenure as a NCAS-M II fellow has ended
 - Attendance to all professional meetings must be completed by August 31 of each fiscal year
 - Professional meetings and/or research travel must be approved by your NCAS-M II Faculty Advisor.
15. I understand that no international travel will be supported with funds from this program.
16. I understand that I am required to disclose in writing all additional funding sources received outside of my NCAS-M II Fellowship. This is necessary to make sure NCAS-M II is compliant with the conditions of the federal award.
17. I understand that as a NCAS-M II Fellow, I cannot engage in employment outside of the Center, degree program, and/or academic institution without written prior approval by both the NCAS-M II academic advisor and the NCAS-M II Director. No co-mingling of federal funds is permissible.
18. I understand that my research goals must be in alignment with NOAA/NCAS-M II strategic plan and I must be able to fully articulate how my specific research fits into the research themes of the Center.
19. I understand that I must maintain full-time enrollment status every semester I am funded. If I fail to maintain full-time enrollment status for any reason, I revoke my right to the financial award detailed in my award letter (Note: graduate students at the writing stage of their thesis or dissertation, having met all other requirements, could be exempt from the “full-time enrollment status” requirement when enrolled in thesis or dissertation credits).
20. I understand I must have a NCAS-M II faculty advisor and a NOAA mentor associated with my graduate or undergraduate research.
21. I understand that I am required to complete an Individual Student Development Plan (SDP), as required, over the tenure of the Fellowship.
22. I understand that I am required to participate in NOAA Skills and Competencies Training at NCAS-M II and the Annual Center-Wide Cohort Experience during each NCAS-M II fiscal year. Exceptions must be submitted in writing and approved by the NCAS-M II faculty advisor.
23. I understand that I am required to participate in all NCAS-M II scheduled workshops, meetings, trainings, and activities. This will include but is not limited to: NOAA Education Partnership Program (EPP) Biennial Forum, and NCAS-M II professional development workshops and center-wide trainings.

24. I understand that periodically the NCAS-M II Fellowship program will require that I attend special events at NOAA or other activities determined as necessary and appropriate by the NCAS-M II program.
25. I understand that I must have a LinkedIn profile established.
26. I understand that I should identify myself as a NCAS-M II Fellow in all communications and/or correspondences (e.g., in your school email signature, LinkedIn, business cards). I understand that specific guidelines will be provided.
27. I understand that I must adhere to all computer, data, attribution/acknowledgement, and other NCAS-M II resource policies in all oral and visual presentations. I understand that specific guidelines will be provided on the NCAS-M II website.
28. I understand that I am obligated to balance my time among academics, research, and support of NCAS-M II programs and operations. Also, concurrent with coursework, I am expected to complete research assignments and reports in a timely manner and consistent with the program goals to fulfill research tasks and NOAA requirements.
29. I understand that the NCAS-M II program will be taking photographs and videos on a periodic basis. All Fellows will be asked to complete a Likeness and Profile Release Form.
30. I understand that I must have an email account on file, which I must check regularly. Moreover, I understand that I am responsible for a timely response to all communications conveyed in these messages.
31. I understand that relevant academic problems or personal concerns encountered with my education, research, and training should be brought to the attention of my NCAS-M II Faculty Advisor and/or NCAS-M II Education Expert.
32. I understand that all requests or grievances related to the NCAS-M II program must be in writing to the NCAS-M II Education Expert and/or the NCAS-M II student ombudsperson (Dr. Leticia Williams -- leticia.williams@noaa.gov). Any verbal request will be considered unofficial and will not be acted upon until it is followed by a written request.
33. I have read all NCAS-M II program requirements, and I fully understand my responsibilities as part of this program. I further realize that my Fellowship may be terminated at any time without further compensation if the NCAS-M II program determines that I am not meeting my responsibilities or have failed to comply with any terms of this Letter of Understanding/Contract.
34. Special exceptions to any requirement will only be evaluated if prior notice is submitted in writing to the NCAS-M II Director and NCAS-M II Education Expert for consideration of the request by the NCAS-M II Executive Management Team. All supporting documentation must be provided at the time of submission.

By signing this document, I acknowledge full compliance:

NCAS-M II Fellow (Signature) Print Name Date

Cohort: ___1 ___2 ___3 ___4 ___5

Place a check mark next to the Cohort in which you were admitted

NCAS-M II Fellow Major Advisor (Signature) Print Name Date

NCAS-M II Director/Institution Lead Investigator Print Name Date
(Signature)