M.P.S. IN EXPLORATION SCIENCE

Overview: Exploration Science (ESC) (https://mps.rsmas.miami.edu/degree-tracks/exploration-science/)

Exploration Science is the applied practice and study of field research using a variety of methods, technologies, and approaches to drive question-based scientific endeavors. This field fosters scientific inquiry and the application of expedition skills within a context that acknowledges the cultural and ethical implications of exploration.

This track is being offered at RSMAS in partnership with UM’s Abess Center for Ecosystem Science and Policy (http://www.cesp.miami.edu/). The Abess Center fosters innovative, interdisciplinary initiatives that bridge the gap between science and environmental policy.

Admission Requirements

1. Bachelor of Science degree (B.S.) or Bachelor of Arts degree (B.A.)

Accepting applications for Fall 2020 admissions:
- July 25th, 2019 - July 20th, 2020 (U.S. Citizens and Permanent Residents)
- July 25th, 2019 - June 1st, 2020 (International Applicants)

Accepting applications for Spring 2021 admissions:
- Now until December 1st, 2020 (U.S. Citizens and Permanent Residents)
- Now until November 1st, 2020 (International Applicants)

An application to the MPS program consists of the following (fall & spring admissions only):

- Online CollegeNet application
- Transcripts from all past/present academic institutions (colleges and universities), including all study abroad and community colleges and, if applicable, a transcript evaluation report from an approved international credentialing agency (for non-U.S. academic institutions).
- Valid Graduate Record Examination (GRE) scores. NOTE: GRE requirement suspended for Fall 2020 admissions only due to COVID-19.
- Three (3) letters of recommendation
- Valid TOEFL or IELTS scores (for international applicants)
- Personal statement (statement of purpose)

If admission to the MPS program is granted, it will be contingent upon receipt of all items listed above (including official transcripts and test scores) and the following for international applicants:

- Statement of Financial Responsibility Form (SFR) and corresponding bank letter
- Color copy of current visa (if available).
- Color copy of valid passport (must include picture page and barcode page)

Permanent Residents must provide a color copy of Permanent Resident Card (Green Card).

Previous graduate and undergraduate scholastic performance, work and volunteer experience, valid test scores (GRE, TOEFL/IELTS), and the letters of recommendation are all considered in evaluating an applicant.

Transcript from U.S. Academic Institutions:

Please make sure you possess the required undergraduate coursework and/or degree before applying. Official transcripts must be mailed or e-mailed directly from the relevant academic institution (Office of the Registrar) to the MPS office. Our email is mps@rsmas.miami.edu; mailing address is available on the MPS website’s Contact Us page. If an applicant is not able to submit an unofficial transcript with his/her application, the applicant may submit unofficial transcripts via email to mps@rsmas.miami.edu. Unofficial transcripts are accepted for review purposes only, not for admission. If admission to the MPS program is granted, it will be contingent upon receipt of all official records. Please be advised, official transcripts will only be accepted if they are sent to us directly from the academic institution. Transcripts sent by you or issued to you (even if they are in a sealed envelope) are not considered official.

Transcripts from Non-U.S. Academic Institutions:

All graduate applicants who received degrees or are currently enrolled in a degree-seeking program from a college or university outside the United States (except applicants to Law* and Nursing**) must submit official transcripts and diplomas (if available) from all colleges and universities to
an approved international credentialing agency. Applicants attending a non-U.S. institution for non-credit must also submit academic records to an approved evaluation agency.

Transcripts in a language other than English must be provided in that language and must be accompanied by a certified English translation. International applicants must also submit a copy of his/her diploma in the official language of the country from which the degree was awarded and provide a certified English translation of the diploma. Submit these items to an approved international credentialing agency. Follow the specific instructions of the selected evaluation agency to request a course-by-course evaluation with degree equivalency and grade point average (GPA) calculation. Applicants must request that the evaluation report and copy of all the official documents used in the evaluation are sent directly from the approved evaluation agency to the MPS office mps@rsmas.miami.edu.

- Josef Silny & Associates (JS&A), Inc, International Education Consultants, is the preferred evaluation vendor for international applicants to the University of Miami due to their competitive prices and high-quality service. Click here for more information including the Application for Evaluation of Foreign Educational Credentials.
- Please note that international applicants are not required to use the services of JS&A. The international credential evaluation services of any approved vendor may be used. Click here to view a list of approved vendors.
- Please be sure the vendor sends your evaluation directly to mps@rsmas.miami.edu.
- Evaluation Fee - Applicants are responsible for the evaluation fee. Please note that failure to comply with these instructions may cause significant delays in the review and processing of your application, and therefore also significant delays in the processing of your I-20.

Letters of Recommendation:

Three (3) letters of recommendation are required for admissions consideration. Each applicant must request letters of recommendation from three (3) different references using the guidelines provided in the online application. Applications from CollegeNet may be submitted without letters of recommendation. However, an applicant’s file will not be reviewed by Track Leaders until all required admissions materials (including letters of recommendation) are received by the MPS office. Upon completion of the application, your references will receive an e-mail from CollegeNet, requesting the online submission of the required documentation (questionnaire + letter of recommendation).

Academic references are ideal and highly preferred, but we will accept letters from employers and/or supervisors. Please do not request letters from friends, family, ministers, or coaches. If your references have trouble using the online submission portal, they may e-mail their letters (signed and on letterhead) to the MPS office at mps@rsmas.miami.edu. We cannot accept letters that are not signed. Letters sent by the applicant or forwarded to the MPS office by the applicant will not be accepted.

GRE:

Due to COVID-19, the GRE requirement is suspended for Fall 2020 admissions only.

The MPS office must receive your official Graduate Record Examination test (GRE http://www.ets.org/gre) scores directly from ETS. Please use institution code 7690 (department code) when submitting your request with ETS. This code indicates delivery of test scores to the RSMAS campus, home of the MPS office.

A minimum, combined score of 297 (Verbal + Quantitative only) is required for admissions consideration. Applicants must also complete the Analytical Writing section of the GRE. However, the Analytical Writing score will not be calculated into your combined score, nor will it be used for tuition waiver eligibility. To learn about our merit-based partial tuition waivers, please visit our Financing Your Education page.

TOEFL/IELTS (for Non-native English Speakers):

To prove language proficiency, students must take either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).
- Paper Based TOEFL (PBT) - minimum score is 550
- Internet Based TOEFL (IBT) - minimum score is 80
- IELTS (Academic) - minimum score is 6.5

Please use institution code 2919 (no department code). This institution code is for the TOEFL only; please note that the GRE institution code is different (see above).

If English is not your native language, the TOEFL/IELTS requirement may be waived if you hold an undergraduate or graduate degree from an academic institution within the United States or from one of the following English-speaking countries:
- Antigua and Barbuda
- Australia
- Bahamas
Barbados
- Belize
- Canada (except Quebec)
- Dominica
- Grenada
- Guyana
- Ireland
- Jamaica
- New Zealand
- Kitts and Nevis
- Lucia
- Vincent and the Grenadines
- Trinidad and Tobago
- United Kingdom

**Intensive English Program (IEP)**

The University of Miami's Division of Continuing and International Education offers a fully-accredited Intensive English Program (IEP) to prepare individuals to understand and use English in a variety of academic, professional, and personal situations. Some of the services that IEP offers graduate students include an international teaching assistant training course, customized classes, LL.M. Intensive English, and volunteer opportunities.

**Personal Statement (statement of purpose):**

Please indicate your track of choice, and all relevant field, lab, and work experience (past and present) in your personal statement. Include your academic and professional goals, and how you envision the MPS program contributing to those goals. We strongly encourage you to include information and/or links to relevant publications, organizations, research projects, supervisors, collaborators, project results, and your role in relation to this.

**MPS Mailing Address:**

University of Miami
Rosenstiel School Campus, MPS Office, Room S/A 132
4600 Rickenbacker Causeway
Miami, FL 33149

Email: mps@rsmas.miami.edu

Website: https://mps.rsmas.miami.edu/index.html

Phone: (305) 421-4340

Fax: (305) 421-4246

**Curriculum Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSM 600</td>
<td>Research Diving Techniques</td>
<td>3</td>
</tr>
<tr>
<td>RSM 667</td>
<td>Motorboat Operator Certification Course</td>
<td>1-2</td>
</tr>
<tr>
<td>MES 664</td>
<td>Citizen and Participatory Science</td>
<td>3</td>
</tr>
<tr>
<td>MES 674</td>
<td>From Gold to Glory: History and Ethics of Exploration</td>
<td>3</td>
</tr>
<tr>
<td>MES 660</td>
<td>Introduction to Marine Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MES 661</td>
<td>Introduction to Marine Geographic Information Systems -</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laboratory (or ELECTIVE)</td>
<td></td>
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</tbody>
</table>
### Elective Options

Students may take any elective on the RSMAS campus with the consent of their faculty advisor. Below are a few examples of courses past students in this program used as electives.

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MES 606</td>
<td>Advanced Fieldwork in Coastal Cultures</td>
<td>3</td>
</tr>
<tr>
<td>MES 612</td>
<td>Aquaculture I</td>
<td>3</td>
</tr>
<tr>
<td>MBE 604</td>
<td>Biology of Marine Mammals</td>
<td>3</td>
</tr>
<tr>
<td>RSM 620</td>
<td>Climate and Society</td>
<td>3</td>
</tr>
<tr>
<td>MES 720</td>
<td>Coastal Law and Policy</td>
<td>3</td>
</tr>
<tr>
<td>MES 618</td>
<td>Coastal Zone Management</td>
<td>3</td>
</tr>
<tr>
<td>MES 620</td>
<td>Environmental Law and Policy</td>
<td>3</td>
</tr>
<tr>
<td>MES 604</td>
<td>Fieldwork in Coastal Management: Tourism, Conservation, and Development</td>
<td>3</td>
</tr>
<tr>
<td>MES 625</td>
<td>Fisheries Socioeconomics and Management</td>
<td>3</td>
</tr>
<tr>
<td>MES 671</td>
<td>Marine Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>MBE 642</td>
<td>Oceans and Human Health</td>
<td>3</td>
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<tr>
<td>MES 601</td>
<td>Political Ecology of Marine Management</td>
<td>3</td>
</tr>
<tr>
<td>RSM 612</td>
<td>Statistics for Marine Scientists</td>
<td>3</td>
</tr>
<tr>
<td>MBE 615</td>
<td>Tropical Marine Ecology</td>
<td>3</td>
</tr>
<tr>
<td>MES 614</td>
<td>Underwater Archaeology Field Techniques</td>
<td>3</td>
</tr>
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</table>

### Suggested Plan of Study

#### Year One

**Fall**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>RSM 600 Research Diving Techniques</td>
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<td>RSM 667 Motorboat Operator Certification Course</td>
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</tr>
<tr>
<td>MES 664 Citizen and Participatory Science</td>
<td>3</td>
</tr>
<tr>
<td>MES 674 From Gold to Glory: History and Ethics of Exploration</td>
<td>3</td>
</tr>
<tr>
<td>MES 660 Introduction to Marine Geographic Information Systems &amp; Introduction to Marine Geographic Information Systems - Laboratory (Or ELECTIVE)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Spring**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MES 665 Science and Natural History Media Production</td>
<td>3</td>
</tr>
<tr>
<td>MBE 621 Field Techniques and Instrumentation in Tropical Marine Ecology (or ELECTIVE)</td>
<td>3</td>
</tr>
<tr>
<td>MES 627 Exploration Science Field Studies (or ELECTIVE)</td>
<td>3</td>
</tr>
<tr>
<td>MES 662 Intermediate Spatial Analysis (or ELECTIVE)</td>
<td>3</td>
</tr>
</tbody>
</table>
Mission
The mission of the Master of Professional Science in Exploration Science (ESC) is to foster scientific inquiry and the application of expedition skills within a context that acknowledges the cultural and ethical implications of exploration. The ESC track exposes students to citizen science project design, exploration technology applications, and field-based skills training, while receiving essential background information on the history, ethics and risks related to exploration. This program prepares students to lead and conduct professional exploration initiatives and expeditions in a variety of environments. A flexible curriculum allows students to focus on courses and subjects that best fit their interests and goals for careers in environmental education, surveying, resource management, citizen science, conservation, media production, government agencies, museums, and ecotourism companies among others. This track is being offered at RSMAS in partnership with UM's Abess Center for Ecosystem Science and Policy. The Abess Center fosters innovative, interdisciplinary initiatives that bridge the gap between science and environmental policy.

Goals
The goal of the Master of Professional Science in Exploration Science (ESC) is to introduce and help students understand citizen science project design, exploration technology applications, and field-based skills training, while receiving essential background information on the history, ethics and risks related to exploration. Tailored class selection and experiential learning helps students obtain the skills and scientific knowledge needed to lead and conduct professional exploration initiatives and expeditions in a variety of environments. Through this integrative process, students are better prepared for careers related to environmental education, surveying, resource management, citizen science, conservation, media production, government agencies, museums, and ecotourism companies. In addition, some have continued their formal education in PhD programs.

Student Learning Outcomes
- Exploration Science (ESC) students will develop and execute citizen science project design, identify and engage exploration technologies where applicable, implement field-based skills training, and lead and conduct professional exploration initiatives in a variety of environments.
- Students will demonstrate professionalism in all aspects of field and lab work during their internships.
- Students will submit a final, written report and deliver a final presentation based on the work completed in their internship.