

# CERTIFICATE IN SUSTAINABLE & RESILIENT DESIGN

## Certificate in Sustainable and Resilient Design

Environmental impacts of building practices, climate change, and rising sea levels are changing the landscape of architecture as a profession. Architects play a central role in selecting material and technology strategies, as well as developing robust adaptation strategies by addressing material impacts and climate stressors in their designs. Research, innovation, and community outreach are central and connected aspects of sustainable and resilient building practices. South Florida is ground zero for issues of coastal resiliency in particular. SoA has developed a coastal resiliency curriculum that capitalizes on civic and scholarly partnerships and aims to better familiarize students with these and other inter-related design, planning, regulatory issues, and the responding strategies under development. SoA faculty have been awarded significant research grants by the National Endowment for the Arts, the National Science Foundation, the W. K. Kellogg Foundation, and the Knight Foundation, resulting in the publication of related findings that aim to foster solutions.

Certificate requires a total of 15 credits of core courses and related electives.

**\*This program is not eligible for federal or state financial aid. Contact the Office of Student Financial Assistance and Employment (<https://finaid.miami.edu/>) for further assistance.**

## Admission Requirements

Applications start on November 1 until June 1 for entry in Fall and October 1 until December 1 for entry in Spring. Admission to the Graduate Certificate Program is subject to the rules, regulations and procedures of the Graduate School (<http://grad.miami.edu/>) as stipulated in the University Graduate Bulletin (<http://bulletin.miami.edu/>). It is the responsibility of each student to understand these requirements and to ensure that they are met.

Applications will be reviewed by the Architecture Faculty Graduate Admissions Committee only after fulfilling the below requirements and all of the following documents have been received:

1. Bachelor degree with a 3.0 cumulative point average (GPA)
2. Completed application (<http://grad.miami.edu/apply/on-campus-graduate-programs/>) form with an application fee. This fee is mandatory.
3. A letter or statement expressing your interest in the certificate and reasons for applying.
4. Official transcripts of all college and university courses taken, indicating the date your professional or other undergraduate degree was awarded. All transcripts must be sent directly from the institution's registrar. E-scripts to download are also accepted. See more information on international transcripts below.
5. Three academic (and professional, if applicable) letters of recommendation. If you have waived your right for access to your letters, they may be sent directly from the recommender, or they may be included with your application in a signed and sealed envelope.
6. Digital portfolio sent to email: [SoAgradadmissions@miami.edu](mailto:SoAgradadmissions@miami.edu).

Please save the digital portfolio with your Lastname\_Firstname. Digital portfolios must be no greater than 8 MB. You may also share a portfolio link to review your work..

Students applying must present a selection of their best architectural works during their pre-professional studies. Examples must emphasize comprehensive skills including sketches, plans, sections and elevations, and graphics that exhibit conceptual and diagramming abilities, understanding of structures and of urban context, as well as any other skills (computer modeling, models, photography and film abilities, etc.). Examples of professional work are encouraged but must clearly identify and describe work done independently and as part of a team.

### Additional requirements for International Students:

1. TOEFL of min. 80 or IELTS of min. 6.5 (please use University code 5815).
2. Graduate international transcripts will be reviewed by one of the approved Evaluation Services:
  - Josef Silny & Associates, Inc., International Education Associates ([https://www.arc.miami.edu/\\_assets/pdf/universityofMIAMI-graduate.pdf](https://www.arc.miami.edu/_assets/pdf/universityofMIAMI-graduate.pdf)), ([www.jsilny.org](http://www.jsilny.org)) (<http://www.jsilny.org/>)
  - Educational Credential Evaluators, Inc. (<http://www.ece.org/>) ([www.ece.org](http://www.ece.org)) (<http://www.ece.org/>)
  - World Education Services (<http://www.wes.org/>) ([www.wes.org](http://www.wes.org)) (<http://www.wes.org/>)

For application review purposes, English translated official transcripts are sufficient. Once the applicant gets admitted, the international evaluation report is required.

Please visit our website at [www.arc.miami.edu](http://www.arc.miami.edu) (<https://grad.arc.miami.edu/>) and refer to our latest admission and portfolio requirements [here](https://www.arc.miami.edu/admissions/admissions-and-portfolio-requirements/grad-requirements/) (<https://www.arc.miami.edu/admissions/admissions-and-portfolio-requirements/grad-requirements/>).

## Curriculum Requirements

### Certificate in Sustainable and Resilient Design

| Code                      | Title  | Credit Hours |
|---------------------------|--|--------------|
| ARC 608                   | Architecture Design (Sustainable & Resilient Design focus) <sup>or ARC 609</sup> | 6            |
| ARC 679                   | An Introduction to Resilient Building and Community Design                       | 3            |
| ARC 685                   | Special Problems (Sustainable Design in Context)                                 | 3            |
| Electives                 |  | 3            |
| <b>Total Credit Hours</b> |  | <b>15</b>    |

#### Electives

| Code  | Title  | Credit Hours |
|---|--|--------------|
| Electives can be selected from the following (choose one) |  |              |
| ARC 639   | Adaptation to Climate Change   | 3            |
| ARC 640   | Tropical Architecture  | 3            |
| ARC 663   | Environmental Building Systems II                                    | 3            |
| ARC 684   | Special Problems (RAD LAB UM)  | 3            |
| ARC 694   | Geographic Information Systems in Urban Design                       | 3            |
| EPH 623   | Determinants of Health and Health Disparities Across the Life Course | 3            |

Other courses by approval

## Goals

- To prepare students for professional leadership and lifelong learning in architecture, urbanism, and related fields.
- To preserve and develop knowledge for the profession through research and practice.
- To share knowledge locally and internationally through community service.
- To promote building and community design goals of environmental responsibility, social equity, and economic sustainability.

## Student Learning Outcomes

- Students will demonstrate the ability to effectively use basic architectural and environmental principles in design.
- Students will demonstrate the ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.
- Students will demonstrate the ability to read, write, speak and listen effectively.
- Students will demonstrate the ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.