

Disaster Resilient Policy, Engineering and Design (Certificate)

Certificates are opportunities to add a specialization to a graduate degree in architecture. The areas of specialization offered by the School of Architecture reflect faculty depth in a particular area of inquiry. Interested students should apply to the certificate program before their last semester. The certificates are also available to non-degree seeking students.

More Information

Disaster Resilient Policy, Engineering and Design Program Website (<https://design.ncsu.edu/admissions/certificates/disaster-resilient-ped/>)

Applicants to the Graduate Certificate in Disaster Resilient Policy, Engineering and Design must complete an application form to be considered for the program provided below. New applications will be reviewed at the department/program level.

Applicant Information

- **Delivery Method:** On-Campus
- **Entrance Exam:** None
- **Interview Required:** None

Application Deadlines

Please visit The Graduate School Application Deadlines (<https://grad.ncsu.edu/admissions/deadlines/>) page for more information.

Plan Requirements

| Code | Title | Hours |
|---|---|-----------|
| Core Courses | | 7 |
| LAR 552 | Survey of Natural Hazards and Disasters | |
| LAR 554 | Disaster Resilient Policy, Engineering and Design | |
| LAR 607 | Natural Hazards, Disasters and Climate Change Adaptation Lecture Series | |
| Track Courses | | 6 |
| Select one of the focus tracks listed below | | |
| Total Hours | | 13 |

Policy Track

| Code | Title | Hours |
|--|---|----------|
| Select a minimum of two of the following courses in conjunction with the academic committee: ¹ | | 6 |
| PA 553 | Disaster, Crisis and Emergency Management and Policy | |
| PA 507 | The Public Policy Process | |
| PA 511 | Public Policy Analysis | |
| PA 798 | Special Topics in Public Administration and Policy (Collaborative Governance and Public Networks) | |
| PA 550 | Environmental Policy | |

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| PA 546 | Seminar in Program Evaluation |
| PA 514 | Management Systems |

- ¹ Other PA courses as identified (including special topics, field study-see, for instance, firechasers program) subject to approval of instructor and track coordinator

Design Track

| Code | Title | Hours |
|--|--|----------|
| Select a minimum of two of the following courses in conjunction with the academic committee: ² | | 6 |
| ARC 503 | Advanced Architectural Design (Series) ^{3,4,5} | |
| or LAR 507 | Advanced Topics Studio in Landscape Architecture and Environmental Planning | |
| LAR 545 | City Planning and Design - Building Great Communities | |
| LAR 546 | The Landscape Imperative | |
| LAR 535 | Environmental Social Equity and Design | |
| LAR 547 | Greenway Planning and Design | |
| LAR 520 | Environment and Culture | |
| LAR 582 | Special Topics In Landscape Architecture (Design for Resilient Food Systems) | |
| or ARC 590 | Special Topics in Architecture | |
| LAR 582 | Special Topics In Landscape Architecture | |
| LAR 630 | Independent Study | |
| ARC 590 | Special Topics in Architecture (Resilient Thinking) | |
| ARC 520 | Sustainable Architecture | |
| ARC 548 | Vernacular Architecture | |
| ARC 563 | Public Interest Design Seminar: Case Studies and Current Issues | |
| ARC 544 | American City Planning History | |
| ARC 590 | Special Topics in Architecture | |

- ² Other LAR and/or ARC courses as identified – subject to approval of instructor and track coordinator.

- ³ Subject to topical area and approval by the Certificate Coordinator.

- ⁴ Non-ARC/LAR students are subject to approval of studio instructors and these student may seek to take ARC 503/LAR 507 as a 3-credit hour course (focused on specific class sub-tasks that do not require design studio training/education).

- ⁵ ARC students are subject to a lottery to get into studios.

Construction, Civil and Environmental Engineering Track

| Code | Title | Hours |
|--|--|----------|
| Select a minimum of two of the following courses in conjunction with the academic committee: ⁶ | | 6 |
| CE 746 | Soil Dynamics and Earthquake Engineering | |
| CE 581 | Fluid Mechanics in Natural Environments | |
| CE 596 | Special Topics in Water Resource and Environmental Engineering (Coastal Hydrodynamics) | |
| CE 596 | Special Topics in Water Resource and Environmental Engineering (Coastal Modeling) | |
| CE 567 | Risk and Financial Management in Construction | |

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| CE 578 | Energy and Climate |
| CE 583 | Engineering Aspects Of Coastal Processes |
| CE 725 | Earthquake Structural Engineering |
| CE 786 | Hydroclimatology |
| CE 790 | Advanced Topics In Civil Engineering |
| MEA 517 | Fundamentals of Climate Change Science |
| MEA 593 | Special Topics in Atmospheric Science (Fundamentals of Climate Change Science) |
| MEA 593 | Special Topics in Atmospheric Science (Climate Risk Analysis for Adaptation) |
| MEA 519 | Barriers to Climate Change Literacy |
| COM 538 | Risk Communication |
| COM 579 | Climate Change Communication |
| COM 566 | Seminar In Crisis Communication |

⁶ Other CE courses as identified – subject to approval of instructor and track coordinator.