## GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Program sponsor:</th>
<th>Princeton Environmental Institute</th>
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<tbody>
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<td>Position number:</td>
<td>U1BOY</td>
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<tr>
<td>Project title:</td>
<td>Noise Pollution, Barriers, Health, Equity and the City</td>
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<td>Organization/research group:</td>
<td>Adriaenssens and Boyer Group</td>
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<td>Primary location(s) of internship:</td>
<td>Princeton, NJ and Trenton, NJ</td>
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<tr>
<td>Additional cities and/or countries to be visited (if applicable):</td>
<td>South Bronx, NYC</td>
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**Note:** If this internship is located in a country with an International SOS risk rating of High or Extreme, final candidates must participate in a travel review process overseen by the Travel Oversight Group (TOG), and obtain safety guidance prior to departure. The University reserves the right to revoke support and funding for travel at any time there has been a significant deterioration in the safety and security conditions surrounding travel arrangements, or in the sector of the country, or countries, where travel is to occur.

## FACULTY SPONSOR(s)/HOST INFORMATION

| Name(s): | Sigrid Adriaenssens and M. Christine Boyer |
| University Department(s): | Engineering and Architecture |
| E-mail: | mcboyer@princeton.edu |
| Phone: | 258-3741 |
| Website: | |

## INTERNSHIP/RESEARCH PROJECT INFORMATION

### Internship/project description:

This internship is for a student to research the effects of noise pollution on low-income communities. S/he will work with the PEI-sponsored project on Noise Pollution, Barriers, Health, Equity and the City directed by Sigrid Adriaenssens and M. Christine Boyer. The task is to make a review of the literature correlating noise levels and income-levels in various American cities and to evaluate the effectiveness of their mitigation plans from noise- abatement technology to ordinances limiting noise exposure. Particular focus will assess government and community organizations responses to noise pollution in Trenton, Newark and New York City. The task is also to identify a low-income study area in Trenton, NJ in order to conduct noise measurements from vehicular traffic at different locations within the area; to generate acoustic maps for the study area, including maximum speed of vehicles on different streets and highways at various times of the day; and to associate these noise measurements with study area demographics, vehicular characteristics generating noise, with traffic flow characteristics, etc.

### Student's role and responsibilities:

- Creation of bibliography of the effect of noise on low income neighborhoods and its association with various health problems such as insomnia, prevalence of Asthma, heart disease, etc.
- Identify study area and conduct noise measurements; creation of acoustic maps; association of noise measurements with study area demographics with vehicular characteristics generating the noise; with traffic flow characteristics, etc.
- Assessment of government and community responses to noise pollution in Trenton, Newark, and New York City; assessment of these responses in terms of racial/ethnic and socioeconomic differences with respect to noise exposure indices. Determine if such differences in noise exposure may indicate health policy disparities within these cities.
Internship/project learning objectives:
Learn how to both gather noise data and to map it on acoustic mapping procedures
Learn how to relate relevant demographic data to acoustic maps
Identify gaps in our knowledge of how noise pollution impacts public health policies

PROGRAM REQUIREMENTS

Academic background and any course pre-requisites:
architecture or sociology preferred

Technical skills:
see role and responsibilities

Additional training(s):
n/a

Equipment:
all students must bring laptop

Physical demands:
taking outdoor measurements in a city, in summer

Language abilities/competencies (if applicable): n/a

Additional information about the internship/project:
n/a

INTERNATIONAL TRAVEL REQUIREMENTS (if applicable)

Visa(s) required? Yes No
Research permit/pass required? Yes No
Immunizations required? Yes No

INTERNSHIP/PROJECT SUPERVISOR(S)

Name and title of primary supervisor: Sigrid Adriaenssens
Email: sadriaen@princeton.edu Phone: 6092584661

Name and title of additional supervisor, if applicable: M. Christine Boyer
Email: mcboyer@princeton.edu Phone:

PROGRAM DATES AND FUNDING INFORMATION

Weekly Stipend: $500 Number of Positions Available: 1
Tentative Start Date (mm/dd/yyyy): 05/27/2018 Number of Weeks: 8
Tentative End Date (mm/dd/yyyy): 07/19/2018

Note: PEI funding is for full-time work, 35 hours per week minimum, and for a period of at least 8 continuous weeks.

Application Deadline: January 11, 2019