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### Undergraduate Research Program

<b>Project Name</b>	Planning the equitable distribution of services and public goods
<b>Campus &amp; Location in Mexico</b>	Estado de México
<b>Faculty</b>	Architecture, Art, and Design
<b>Research Area</b>	Sustainable urban development
<b>Research Responsible</b>	Dr. Aleksandra Krstikj
<b>Description of the Project</b>	This study sets to develop a new method for assessment of spatial equity of services and public goods, applicable in different urban contexts and especially relevant to emerging regions with high densities. We hypothesized that spatial equity of services, such as public parks or health centers, rather than density plays a role in community resilience. The significance of our method is in its ability to quickly and efficiently describe real urban conditions through an integral spatial separation indicator based on proximity, density, and marginalization and inform decision-makers regarding distress zones. The preliminary results, based on the assessment of spatial equity in the two case studies of Mexico and China during the COVID-19 outbreak, seem to indicate that spatial equity was positively correlated with the resilience to the COVID-19 crisis in these case studies. Undoubtedly, more studies are necessary to verify this correlation in other contexts with different conditions. The aggregated effect that this method can bring to preparedness planning at the local level in emerging regions can improve the resilience to future outbreaks.
<b>Training Provided</b>	spatial analysis, GIS, spatial autocorrelation, index development

### Offered during:

SUMMER

☐

WINTER

☐

SEMESTER

☒

### Student

<b>Tasks/Responsibilities</b>	research assistant responsible for data collection, database formation, data mapping and basic spatial analysis
<b>Required Language Proficiency</b>	English- full professional command
<b>Required Skills and Abilities</b>	good command of GIS, Autocad and Adobe Creative Suite
<b>Other Documents</b>	<ol style="list-style-type: none"> <li>1) Being at least in your 2nd year of bachelor</li> <li>2) Accumulative grade point average (GPA) 2.5</li> <li>3) Official Transcript</li> <li>4) 2 letters of recommendation of faculty members</li> <li>5) Resume</li> <li>6) Letter of intention explaining the reason why you would like to participate in the research program</li> </ol>