Technology changes quickly. That’s why we’ve updated our course offerings and programs — so that you can graduate with the most up-to-date skills and knowledge required to succeed in industry.

We’ve improved. Students minoring in applied analytics will now learn how to program in Python, which has emerged as the preferred language for data analytics. Our new minors in blockchain and in connected devices and making reflect worldwide trends. And our new programming sequence provides students with a stronger foundation for developing mobile, web, and desktop applications.

Why did ITP make these changes? We updated our course offerings and program requirements to better prepare students for trends in industry. We hope that you will find these changes rewarding and beneficial to your skills development.

What will happen to the classes I’ve already completed? Any classes you have already completed will still count toward your minor or specialization requirements. These changes are not retroactive. But these changes will affect the classes that you'll enroll in for Fall 2019 onward.

How will this affect my course plan? This depends on how many classes you’ve already completed for your minor or specialization. We’ve outlined your remaining requirements based on what you’ve completed so far on the next page.

I completed a course when it was a three-unit course, but now it is a four-unit course. Will this change how many units I’ve already earned? No, these changes are not retroactive. We’ve added new course material, so the additional unit reflects the additional work required.

Can I continue following my original requirements? You will follow a transitional plan based on preserving your original requirements. Because many of our courses have changed (and a few canceled) your course plan will be adjusted accordingly. Please see the transitional requirements on the next page to see how your course plan will be affected.

Can I follow the updated minor requirements instead? Yes. Many students who have only completed one or two courses may wish to follow the updated plan. By default, students who already declared their minors or specializations will follow transitional plans.

Can I meet with an adviser to update my course plan? Before you meet with an adviser, you must read the information in this document and fill out a pre-advisement record. After you have met with your major advisor and filled out a pre-advisement record, you may schedule an appointment if needed. You are also welcome to email us at itpadvising@usc.edu. Advisers are not available to answer questions over the phone.

Why do I need 16 unique units? All minors at USC need 16 units that only meet minor requirements and do not meet any other major, minor, or GE requirement. For example, if ITP-115 satisfies a requirement for your major and for your ITP minor, then it would not be “unique.” You cannot complete your minor without 16 unique units. There are no exceptions to this university rule.

These are important changes that will affect your Fall 2019 registration. Please take the time to read this document in its entirety.
**CONNECTED DEVICES AND MAKING (CNDM)**

**TRANSITIONAL REQUIREMENTS**

Your minor requirements may be affected by the curriculum changes. Use the chart below to determine your remaining requirements for your minor by selecting the set of courses you have already completed.

<table>
<thead>
<tr>
<th>LEGEND</th>
<th>Existing course</th>
<th>New course</th>
<th>Course changed to 4 units</th>
<th>Course no longer offered</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Completed courses</th>
<th>Remaining requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>This includes in-progress courses for Spring 2019.</td>
<td>In all cases, you must earn 16 unique units minimum.</td>
</tr>
<tr>
<td>109/115/165</td>
<td>228 348 Elective Elective</td>
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<td>109/115/165</td>
<td>228 348 Elective Elective</td>
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<tr>
<td>109/115/165</td>
<td>228 348 Elective Elective</td>
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</tbody>
</table>

If the requirements you have already completed do not match one of the sets above, please email our advisement team at itpadvising@usc.edu for guidance.

**Minor requirements (effective Fall 2019)**

**Complete one of the following (2 units):**
- ITP-109 “Introduction to Java Programming” (2 units)
- ITP-115 “Programming in Python” (2 units)
- ITP-165 “Introduction to C++ Programming” (2 units)

**Core requirements (8 units):**
- ITP-228 “Computer-Aided Modeling for 3D Product Design” (2 units)
- ITP-348 “Introduction to Physical Computing” (4 units)  
  [prerequisite: ITP-109, ITP-115, or ITP-165]

**Electives (8 units):**
- ITP-249 “Introduction to Data Analytics” (4 units)
- ITP-341 “Android App Development” (4 units)  
  [prerequisite: ITP-265 or CSCI-103]
- ITP-342 “iOS App Development” (4 units)  
  [prerequisite: ITP-265 or CSCI-103]
- ITP-388 “Developing Connected Devices” (4 units)  
  [prerequisite: ITP-348]
- ITP-466 “Building the High Tech Startup” (4 units)
- ITP-468 “Connected Devices Project” (4 units)  
  [prerequisites: ITP-228 and ITP-348]
- ITP-476 “Technologies for Interactive Marketing” (4 units)