CURRICULAR ANALYTICS

University Advisors Network
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WHAT IS CURRICULAR ANALYTICS?

A way to measure structural complexity of a program
UNDERSTANDING COMPLEXITY

• **Instructional**: how courses in the curriculum are taught and supported (pass/fail rate)

• **Structural**: the extent to which the organization of and links between courses affect a student’s ability to progress through curriculum (pre/co-requisites)

• **Applied**: how the curriculum is implemented in advising and student registration (advising practices, hidden prerequisites, conditional rules, frequency of course offerings and curriculum changes)
**TERMINOLOGY**

**Blocking Factor**
The number of courses a student is prevented from taking until the gateway course is successfully completed.

**Delay Factor**
The longest chain of courses connected as requisites.

<table>
<thead>
<tr>
<th>Course</th>
<th>Blocking Factor</th>
<th>Delay Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
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<td>3</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
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<td>2</td>
</tr>
<tr>
<td>D</td>
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</table>
TERMINOLOGY CONTINUED

Centrality
Requires various prerequisites and is also a prerequisite for many additional courses in the curriculum

Complexity Score
Sum of blocking factor and delay factor

<table>
<thead>
<tr>
<th>Course</th>
<th>Blocking Factor</th>
<th>Delay Factor</th>
<th>Complexity Score</th>
<th>Centrality</th>
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</thead>
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<tr>
<td>D</td>
<td>0</td>
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RESOURCES

• Curricular Analytics Tool

• Curricular Analytics at USC
  • USC Curricular Analytics site
    • Request access and data
  • USC Curricular Complexity Average = 113
LOOKING FORWARD

• Awareness
  • Changes may be coming in your programs
  • Prepared for potential conversations with faculty

• Support for faculty
  • Course availability
  • Course needs
  • Identifying gateway courses
THANKS!

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