Recommended Quantitative Curriculum for Ecology Graduate Students

This flowchart depicts recommended pathways through some of the many quantitative courses available to GGE students. Each path has 4 courses. These pathways were designed with the "average" GGE student in mind, your specific needs may differ and you are encouraged to discuss your coursework with your faculty advisor and fellow graduate students. A list of commonly taken quantitative course can be found [here](#).

Key
- Course offered yearly
- Course offered every other year
- Courses may be taken concurrently
  - Analytical modeling path
  - Statistical modeling I path
  - Statistical modeling II path

<table>
<thead>
<tr>
<th>Year 1 – Fall occurs in an EVEN year</th>
<th>Year 2 – Fall occurs in an ODD year</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Fall</strong></td>
<td><strong>Winter</strong></td>
</tr>
<tr>
<td>Mathematical methods in population biology PRB/ECL 231</td>
<td>Computational models in population biology* PBG/ECL 233</td>
<td>Linear mixed models in ecology and evolution ECL 298</td>
</tr>
<tr>
<td>R-DAVIS ECL 298</td>
<td>Applied statistical modeling for the environmental sciences** PLS 298</td>
<td>Bayesian Models: A Statistical Primer ECL 298</td>
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<tr>
<td><strong>Winter</strong></td>
<td><strong>Winter</strong></td>
<td><strong>Spring</strong></td>
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<tr>
<td>Applied multivariate modeling in the agricultural and environmental sciences PLS 205</td>
<td>Applied statistical modeling for the environmental sciences** PLS 298</td>
<td>Applied multivariate modeling in the agricultural and environmental sciences PLS 205</td>
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<tr>
<td><strong>Spring</strong></td>
<td><strong>Spring</strong></td>
<td><strong>Winter</strong></td>
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<tr>
<td>Experimental design and analysis PLS 205</td>
<td>Bayesian Models: A Statistical Primer ECL 298</td>
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</tr>
</tbody>
</table>

* This course is offered every other year (odd years). If it is not available in Year 1, it can be taken in winter quarter of Year 2 either after ECL 298 or concurrently with PLS 298.

** This course is offered every other year (odd years). It should be taken after other courses in each pathway but can be taken in Year 3.
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**Year 1 – Fall occurs in an ODD year**

- **Fall:** R-DAVIS
  - ECL 298
  - Mathematical methods in population biology
  - PRG/ECL 231

- **Winter:**
  - Linear mixed models in ecology and evolution
  - ECL 298

- **Spring:**
  - Experimental design and analysis
  - PLS 205

**Year 2 – Fall occurs in an EVEN year**

- **Fall:**
  - Computational methods in population biology*
  - PBG/ECL 233

- **Winter:**
  - Applied statistical modeling for the environmental sciences**
  - PLS 298

- **Spring:**
  - Applied multivariate modeling in the agricultural and environmental sciences
  - PLS 205

- **Winter:**
  - Bayesian Models: A Statistical Primer
  - ECL 298

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