GTES-CS
Georgia Tech Emerging Scholars in Computer Science
Georgia Tech

- State university
- Metropolitan setting (Atlanta)
- 3000 freshmen
- Colleges:
  - arch, engineering, cs, liberal arts, mgt, sciences
- 30% women in institution
- Requires CS1 for every major
Multiple CS1s

- **CS1301** (enrollment fall: 236, spring: 131)
  - CS majors, chem, math, bio, psych

- **CS1315** (enrollment fall: 300, spring: 400)
  - Computation media majors
  - Architecture majors
  - Management

- **CS1371** (enrollment fall: 1147, spring: 1282)
  - Engineering majors
CS1301 Fall '06

- CS 1 for CS majors; python language
- Piloted PLTL add-on during 2005/6
- '06 roll out PLTL as the recitation style
- Per week
  - 3 hours lecture (large lecture hall: 236)
  - 1.5 hours recitation as PLTL sessions
- 12 team leaders, avg 20 students each
CS1301 Spring '07

• Continue with PLTL approach

• Basically the same as fall, except
  – Enrollment lower: 131 (cyclical)
  – 7 team leaders, avg 20 students each
CS1315 Fall '06

• Move PLTL add-on pilot to this CS1 course
• Jython language - computational media
• 3 credit hour course
• Standard part of course per week:
  – 3 hours lecture (large lecture sections: 2x150)
  – 1.5 hours standard recitation
    • attendance optional
CS1315 Fall '06 - Logistics

• PLTL companion course called CS1801
• Optional enrollment
• Attendance required if enrolled
• 4 team leaders, 31 students: ~8 per team leader
• Adds 1-hour pass/fail CS elective credit
The CS1801 Group Learning Session

- Weekly 2-hour session
- Pair or group programming activities
- Groups of 2-4 working on various projects with guidance from the team leader
- Occasionally working together as an entire class
- Collaborative test review
## CS1315 Fall '06 Results

<table>
<thead>
<tr>
<th></th>
<th>CS1315 Average GPA</th>
<th>DFW Rate</th>
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<tbody>
<tr>
<td><strong>CS1315 Class at Large</strong></td>
<td>2.96</td>
<td>13.90%</td>
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<tr>
<td><strong>CS1315 + PLTL Students</strong></td>
<td>3.21</td>
<td>0% from CS1315</td>
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<tr>
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<td>3.23% from PLTL</td>
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</tbody>
</table>
CS1315 Spring '07

• Continue PLTL offering

• Enrollment higher: 400 (as 2x200, cyclical)

• Enrollment in PLTL larger
  • 37 students
  • 4 team leaders, ~9 students each