Comparing Student Course Progress For Alternative Advisement Policies

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Presented at the 2017 North American College Teachers of Agriculture Meeting
Purdue University
West Lafayette, Indiana
✓ Pre-2012: UAM students required a minimum of 124 hours to complete a Bachelor of Science degree.

✓ 2012: Act 747 of Arkansas Legislature reduced the minimum requirement to 120 hours.
✓ “15-to-Finish” / “Complete America”

✓ Accelerate student progress to graduation.

✓ Reduce total student loan balances held at graduation.

✓ Increase productivity and efficiency of institutions.
✓ Pre-2017: UAM students who required a developmental course were limited to a maximum of 14 hours per semester.

✓ Requirement in practice was often ignored by advisors.

✓ 2017: All students required to take minimum of 15 hours.
✓ **Fallacy for Developmental Students:**

UAM students who require one or more developmental course cannot complete the 120 hours required for a degree within 4 years (8 semesters) when taking 15 hours per semester.

Might require a minimum of 132 hours!
✓ Student success within a degree program and eventual probability of earning a degree is significantly affected by college entrance exam scores, associated developmental course requirements, and semester course load scheduled.
1. How extensive is the developmental issue for UAM agriculture students?
2. Do academic outcomes of developmental students differ versus non-developmental?
3. What are the critical time periods for developmental versus non-developmental?
4. What are the future implications for agribusiness student academic advising?

KEY QUESTIONS

University of Arkansas at Monticello
School of Agriculture
• Compile a data set for current and past agriculture students from UAM academic records including ACT test scores, initial year in the agriculture program, years completing agriculture core courses, cumulative GPA, total UAM hours earned to date, and last academic outcome.

• Analyze data for means and statistical significance by data item.

• Identify patterns/trends.
• University of Arkansas at Monticello student academic records for Course History and Grades.
• Students Identified from AGRI 1101 Agriculture Orientation class rolls during the period.
• Total Students Examined - 535
• Developmental Students identified from ACT Test Scores submitted to UAM Admissions Office.
DEGREE OFFERED:
➢ BACHELOR OF SCIENCE
   – AGRICULTURE MAJOR.

DEGREE OPTIONS OFFERED:
➢ Agribusiness
➢ Animal Science (includes Pre-Vet)
➢ Plant & Soil Science
➢ General Agriculture
AGRICULTURE CORE COURSES:

- AGRI 1101 AGRICULTURE ORIENTATION
- AGEC 2273 AGRICULTURE ECONOMICS
- ANSC 1003 PRINCIPLES OF ANIMAL SCIENCE
- AGRO 1033 PRINCIPLES OF FIELD CROPS

UAM DEGREE PROGRAM
Advising Procedures

University of Arkansas at Monticello
School of Agriculture
University of Arkansas at Monticello

1st SEMESTER FRESHMAN STUDENT:
➢ June or July Preregistration – School of Agriculture Advisors help develop course schedule and share an 8-Semester Plan.

TRANSFERING or CHANGING MAJOR:
➢ Register with aid of School of Agriculture Advisor following 1st Semester Freshmen.

All students meet with their Advisor during first two weeks of Fall Semester.

ADVISING PROCESSES
CONTINUING STUDENT:

- Each Subsequent Semester - Meet with Regular Advisor during November or April Preregistration to plan courses and enter schedule.

- 2\textsuperscript{nd} Semester of Junior Year – Student and Advisor jointly develop a “Closing Plan” with all remaining required courses and schedule of when to take them.

After grades are posted each semester, Advisor sends personal letters of “Congrats” and “Regrets” to his/her advisees.
Results & Observations
<table>
<thead>
<tr>
<th>Course Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Developmental</td>
<td>263</td>
</tr>
<tr>
<td>Total Developmental</td>
<td>270</td>
</tr>
<tr>
<td>Basic English (* added Fall 2015)</td>
<td>17</td>
</tr>
<tr>
<td>Fundamentals of English</td>
<td>163</td>
</tr>
<tr>
<td>Introduction to Algebra</td>
<td>90</td>
</tr>
<tr>
<td>Intermediate Algebra</td>
<td>113</td>
</tr>
</tbody>
</table>

(2002-2017)
# Developmental Student ACT Scores

<table>
<thead>
<tr>
<th>Score</th>
<th>Composite</th>
<th>English</th>
<th>Math</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 &amp; Less</td>
<td>61</td>
<td>99</td>
<td>58</td>
<td>74</td>
</tr>
<tr>
<td>16-18</td>
<td>112</td>
<td>90</td>
<td>151</td>
<td>86</td>
</tr>
<tr>
<td>19 &amp; More</td>
<td>96</td>
<td>81</td>
<td>61</td>
<td>110</td>
</tr>
</tbody>
</table>

(2002-2017; N=270 students)
<table>
<thead>
<tr>
<th>Non-Developmental</th>
<th>Developmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>232 Agriculture Orientation</td>
<td>225</td>
</tr>
<tr>
<td>159 Agriculture Economics</td>
<td>127</td>
</tr>
<tr>
<td>204 Animal Science</td>
<td>172</td>
</tr>
<tr>
<td>189 Field Crops</td>
<td>149</td>
</tr>
<tr>
<td><strong>263 TOTALS</strong></td>
<td><strong>270</strong></td>
</tr>
<tr>
<td>Non-Developmental</td>
<td>Developmental</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------</td>
</tr>
<tr>
<td><strong>2.488</strong> Average GPA</td>
<td><strong>1.818</strong></td>
</tr>
<tr>
<td><strong>4.293</strong> Average Semesters in Agriculture</td>
<td><strong>3.767</strong></td>
</tr>
</tbody>
</table>
### Student Academic Outcomes

<table>
<thead>
<tr>
<th>Non-Developmental</th>
<th>Developmental</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Active</td>
</tr>
<tr>
<td>39</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Withdrew/Transferred</td>
</tr>
<tr>
<td>64</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Changed Major</td>
</tr>
<tr>
<td>42</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suspended</td>
</tr>
<tr>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Graduated</td>
</tr>
<tr>
<td>88</td>
<td></td>
</tr>
<tr>
<td><strong>263</strong></td>
<td><strong>TOTALS</strong></td>
</tr>
</tbody>
</table>
How extensive is the developmental issue for UAM agriculture students?

Over half of entering students are classified as requiring one or more developmental course based on their ACT test scores!
Do academic outcomes of developmental students differ versus non-developmental?

Developmental students:
✓ Have about 0.67 lower GPAs.
✓ Withdraw at a 50% higher rate
✓ Are suspended twice as often, and
✓ Graduate at 10% higher rate than those of Non-Developmental students.

CONCLUSIONS
What are the critical time periods for developmental versus non-developmental?

Developmental students average about 0.5 semesters less in the agriculture program than non-developmental students.

This suggests that the window of opportunity is smaller to reach them!

CONCLUSIONS
What are the future implications for agribusiness student academic advising?

✓ Early intervention by advisors is even more critical for developmental students.

✓ Agriculture economics courses may be more difficult for these students due to more extensive mathematical applications.

CONCLUSIONS
• Dr. Dale Bower – Former UAM Associate Vice Chancellor for Academic Affairs

• Dr. Kelly Bryant – Dean UAM School of Agriculture & Director UA-SEREC

APPRECIATION
QUESTIONS/COMMENTS?