**Agricultural Education, Communications, and Technology**
**AEED-MS Assessment Report 2021-22**

1. **Contact Name:**
Jeff Miller, AECT Assessment Coordinator
(479) 575-5650
jdmiller@uark.edu

**A. AEED-MS Program Goals**

- Develop technology transfer specialists with strong communication skills and problem solving abilities who are prepared to serve diverse populations.
- Stimulate intellectual capacity in students for integrating multi-disciplinary knowledge, technology and values.
- Enhance the leadership skills of future professionals in agriculture, food and natural resource careers.
- Produce graduates with broad technical skills in agricultural science and technology.

**B. Key Expected Outcomes for Graduate Students, 2021-22**

Assessment efforts in 2021-22 focused on the AEED MS theses completed this year.

**C. Student Learning Outcome 2 (from assessment plan).** AEED MS students will demonstrate problem solving skills in a supporting area of agriculture, education, technology or communications.

**Assessment Measure 1**

Master's student theses and oral exams will be evaluated for expertise in problem solving related to a specific research problem.

**Acceptable and Ideal Targets** (not required for indirect measures)

- Minimum score for passing is 60 out of 100 possible points on the rubric.
- Acceptable target: 70% of AEED MS students pass thesis defense
- Ideal target: 100% of AEED MS students score 70 or above on thesis defense

**Key Personnel** (who is responsible for the assessment of this measure)

- Jill Rucker, Graduate Coordinator and all faculty advising AEED MS students

**D. Analysis of Results**

Analysis of the rubrics provided by supervising faculty show that the ideal target was met, with 100% of AEED MS students scoring 70 or above on the thesis evaluation rubric (n=3), with scores of 84, 91 and 98 on 100-point scales.

**Recommendations** (not required for indirect measures)

Improving MS thesis student's understanding of the thesis writing process has been an area of focus in the AECT department for several years and has been bolstered by the development of two thesis-writing courses. A research methods course has also long been a requirement in the program. These courses, now with permanent course numbers and titles have now been offered for four consecutive years, and while they appear to be improving student success both in terms of timely thesis completion and thesis writing skill, a revision of these courses is likely needed this year in response to student course evaluation feedback.

Item analysis shows lower scores mostly on concepts in the methodology (sampling and instrumentation) and conclusion/discussion (conclusions relevant to purpose and appropriately uses literature to interpret findings) portions of the written theses. These findings could be clues to concepts that need to be more deeply emphasized in the research methods and thesis writing courses.

**Action Plan**

The following actions should continue so the department can maintain and continue to improve AEED MS students' retention, completion, and placement:

1. Continue to prepare students to conduct quality research through the departments research methods course, placing a stronger emphasis on instrument development and data collection methods. **(Research methods instructor and all advisors)**
2. Continue to equip students will skill and confidence to complete the thesis on time through the department's thesis writing courses, placing a stronger emphasis in the technical communication course on tying conclusions back to the literature base. **(Miller and all advisors)**

**Supporting Attachments**

- Appendix A: AECT thesis and dissertation evaluation rubric

**Appendix A: AECT Thesis and Dissertation Rubric**

Research Project Grading Rubric Name____ _____

| | |
|---|---|
| Title is appropriately representative of project | _____ 3 pts |
| Chapter 1: Introduction | |
| Need for the Study (brief, use lit. and/or cite problem in the field) | _____ 3 pts |
| Statement of the Problem | _____ 3 pts |
| Overview of Literature | _____ 2 pts |
| Significance of the Problem | _____ 2 pts |
| Research Questions (or Objectives or Hypotheses) | _____ 3 pts |
| Assumptions (which underlie the problem) | _____ 2 pts |
| Limitations (here or chapter 3) | _____ 2 pts |
| Chapter 2: Theoretical Framework | |
| Background of the Problem (from the related literature) | _____ 3 pts |
| Presentation of the Literature (to address the research questions) | _____ 5 pts |
| Conclusions from the Literature | _____ 3 pts |
| Chapter 3: Methods | |
| Statement of the Problem (same as Chapter 1) | _____ xx |
| Purpose of the Study | _____ 3 pts |
| Research Questions / Objectives / Hypotheses (if applicable) | _____ 2 pts |
| Design of the Study – explained / illustrated | _____ 3 pts |
| Subjects | _____ xx |
| Subject Selection | _____ 3 pts |
| Population / Sample | _____ 3 pts |
| Sampling Procedure/process | _____ 3 pts |
| Instrumentation | _____ xx |
| Instrument Development -- explained | _____ 3 pts |
| Instrument Validity – how established? | _____ 3 pts |
| Instrument Reliability – how established? | __ __ 3 pts |
| Treatments (if experimental; or variations among subjects) | ___ 3 pts |
| Conditions of Testing (if experimental; or variations among subjects) | _ _ 2 pts |
| Procedures for Data Collection | ____ 3 pts |
| Analysis Plans | _____ 2 pts |
| Chapter 4: Analyses / Findings | |
| Analyses are appropriate to the study | ____ 3 pts |
| Analyses match the purpose/objectives | ____ 3 pts |
| Analyses are detailed and well-presented | ____ 3 pts |
| Are the findings appropriately interpreted | ____3 pts |
| Chapter 5: Conclusions / Discussion / Recommendations | |
| Summary of the findings | ____ 3 pts |
| Are relevant to the purpose/objectives | _____ 3 pts |
| Appropriately uses knowledge base / literature to interpret findings | _____ 3 pts |
| Ties everything together | _____ 3 pts |
| Identifies strengths and weaknesses of the study | _____ 3 pts |
| Includes implications for practice | _____ 3 pts |
| Provides direction for future research | _____ 3 pts |

General comments:

Overall student demonstrated an understanding of the research process.

Overall Score: ____ 100 pts

**Appendix A:**
**Office of Institutional Research MS Retention Report 2010-2019**
**(Compiled by UA Graduate School)**

# Master's Student Retention Report (2010-2019)

| Program | # in Cohort | Graduated with Cohort Program Degree | | Graduated with Another Graduate Program Degree | | Still Active/Enrolled in Cohort Program | | Still Active/Enrolled in Another Graduate Program | | Cohort Dropped Out | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | # of Students | % of Cohort | # of Students | % of Cohort | # of Students | % of Cohort | # of Students | % of Cohort | # of Students | % of Cohort |
| ACCTMA | 540 | 483 | 89.44% | 2 | 0.37% | 0 | 0.00% | 47 | 8.70% | 8 | 1.48% |
| ACCTMP | 57 | 0 | 0.00% | 0 | 0.00% | 57 | 100.00% | 0 | 0.00% | 0 | 0.00% |
| ADLLME | 145 | 55 | 37.93% | 2 | 1.38% | 37 | 25.52% | 2 | 1.38% | 49 | 33.79% |
| AEEDMS | 151 | 75 | 49.67% | 1 | 0.66% | 25 | 16.56% | 1 | 0.66% | 49 | 32.45% |
| AFLSMS | 59 | 26 | 44.07% | 11 | 18.64% | 0 | 0.00% | 0 | 0.00% | 22 | 37.29% |
| AGECMS | 215 | 174 | 80.93% | 2 | 0.93% | 28 | 13.02% | 1 | 0.47% | 10 | 4.65% |
| ANSCMS | 93 | 57 | 61.29% | 0 | 0.00% | 14 | 15.05% | 0 | 0.00% | 22 | 23.66% |
| ANTHMA | 88 | 67 | 76.14% | 1 | 1.14% | 9 | 10.23% | 0 | 0.00% | 11 | 12.50% |
| APBAMA | 9 | 0 | 0.00% | 0 | 0.00% | 9 | 100.00% | 0 | 0.00% | 0 | 0.00% |
| ARTMFA | 89 | 42 | 47.19% | 0 | 0.00% | 33 | 37.08% | 0 | 0.00% | 14 | 15.73% |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATTRMA | 184 | 140 | 76.09% | 0 | 0.00% | 37 | 20.11% | 0 | 0.00% | 7 | 3.80% |
| BADMMB | 1187 | 872 | 73.46% | 6 | 0.51% | 230 | 19.38% | 5 | 0.42% | 74 | 6.23% |
| BENGMS | 55 | 28 | 50.91% | 4 | 7.27% | 11 | 20.00% | 1 | 1.82% | 11 | 20.00% |
| BIOLMS | 79 | 46 | 58.23% | 4 | 5.06% | 9 | 11.39% | 6 | 7.59% | 14 | 17.72% |
| BMEGMS | 51 | 34 | 66.67% | 3 | 5.88% | 7 | 13.73% | 4 | 7.84% | 3 | 5.88% |
| BMENMS | 10 | 1 | 10.00% | 8 | 80.00% | 0 | 0.00% | 0 | 0.00% | 1 | 10.00% |
| CATEME | 15 | 11 | 73.33% | 1 | 6.67% | 2 | 13.33% | 0 | 0.00% | 1 | 6.67% |
| CCLEME | 14 | 0 | 0.00% | 0 | 0.00% | 13 | 92.86% | 0 | 0.00% | 1 | 7.14% |
| CDISMS | 284 | 222 | 78.17% | 0 | 0.00% | 50 | 17.61% | 0 | 0.00% | 12 | 4.23% |
| CEMBMS | 98 | 63 | 64.29% | 4 | 4.08% | 15 | 15.31% | 2 | 2.04% | 14 | 14.29% |
| CENGMS | 62 | 38 | 61.29% | 6 | 9.68% | 6 | 9.68% | 4 | 6.45% | 8 | 12.90% |
| CHEDMA | 453 | 398 | 87.86% | 35 | 7.73% | 0 | 0.00% | 0 | 0.00% | 20 | 4.42% |
| CHEGMS | 60 | 32 | 53.33% | 4 | 6.67% | 12 | 20.00% | 4 | 6.67% | 8 | 13.33% |
| CHEMMS | 39 | 21 | 53.85% | 4 | 10.26% | 2 | 5.13% | 3 | 7.69% | 9 | 23.08% |
| CHLPMS | 73 | 49 | 67.12% | 4 | 5.48% | 8 | 10.96% | 0 | 0.00% | 12 | 16.44% |
| CIEDES | 47 | 18 | 38.30% | 6 | 12.77% | 4 | 8.51% | 2 | 4.26% | 17 | 36.17% |
| CIEDME | 51 | 26 | 50.98% | 2 | 3.92% | 6 | 11.76% | 1 | 1.96% | 16 | 31.37% |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| CLCSMA | 31 | 13 | 41.94% | 1 | 3.23% | 7 | 22.58% | 0 | 0.00% | 10 | 32.26% |
| CNSLMS | 307 | 167 | 54.40% | 7 | 2.28% | 107 | 34.85% | 1 | 0.33% | 25 | 8.14% |
| COMMMA | 164 | 108 | 65.85% | 3 | 1.83% | 28 | 17.07% | 3 | 1.83% | 22 | 13.41% |
| CRWRMF | 129 | 72 | 55.81% | 0 | 0.00% | 44 | 34.11% | 2 | 1.55% | 11 | 8.53% |
| CSCEMS | 129 | 89 | 68.99% | 3 | 2.33% | 15 | 11.63% | 3 | 2.33% | 19 | 14.73% |
| CSESMS | 158 | 98 | 62.03% | 5 | 3.16% | 21 | 13.29% | 2 | 1.27% | 32 | 20.25% |
| CVEGMS | 151 | 111 | 73.51% | 2 | 1.32% | 21 | 13.91% | 0 | 0.00% | 17 | 11.26% |
| DRAMMF | 34 | 30 | 88.24% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 4 | 11.76% |
| DSGNMDS | 4 | 1 | 25.00% | 0 | 0.00% | 2 | 50.00% | 0 | 0.00% | 1 | 25.00% |
| ECANMS | 11 | 0 | 0.00% | 0 | 0.00% | 11 | 100.00% | 0 | 0.00% | 0 | 0.00% |
| ECONMA | 39 | 36 | 92.31% | 2 | 5.13% | 0 | 0.00% | 0 | 0.00% | 1 | 2.56% |
| EDEQME | 75 | 5 | 6.67% | 0 | 0.00% | 53 | 70.67% | 0 | 0.00% | 17 | 22.67% |
| EDLEES | 62 | 34 | 54.84% | 2 | 3.23% | 8 | 12.90% | 1 | 1.61% | 17 | 27.42% |
| EDLEME | 240 | 152 | 63.33% | 7 | 2.92% | 43 | 17.92% | 0 | 0.00% | 38 | 15.83% |
| EDUCMA | 77 | 48 | 62.34% | 1 | 1.30% | 28 | 36.36% | 0 | 0.00% | 0 | 0.00% |
| ELEDMA | 174 | 110 | 63.22% | 0 | 0.00% | 52 | 29.89% | 0 | 0.00% | 12 | 6.90% |
| ELEGMS | 300 | 193 | 64.33% | 12 | 4.00% | 51 | 17.00% | 4 | 1.33% | 40 | 13.33% |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| EMGTMS | 110 | 29 | 26.36% | 7 | 6.36% | 54 | 49.09% | 1 | 0.91% | 19 | 17.27% |
| ENDYMS | 1 | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 1 | 100.00% | 0 | 0.00% |
| ENEGMS | 17 | 4 | 23.53% | 7 | 41.18% | 2 | 11.76% | 1 | 5.88% | 3 | 17.65% |
| ENGLMA | 141 | 88 | 62.41% | 1 | 0.71% | 26 | 18.44% | 0 | 0.00% | 26 | 18.44% |
| ENGRME | 486 | 242 | 49.79% | 20 | 4.12% | 66 | 13.58% | 5 | 1.03% | 153 | 31.48% |
| ENTOMS | 39 | 28 | 71.79% | 1 | 2.56% | 5 | 12.82% | 0 | 0.00% | 5 | 12.82% |
| ESRMMS | 6 | 1 | 16.67% | 2 | 33.33% | 0 | 0.00% | 0 | 0.00% | 3 | 50.00% |
| ETECME | 199 | 107 | 53.77% | 3 | 1.51% | 28 | 14.07% | 0 | 0.00% | 61 | 30.65% |
| EXSCMS | 6 | 0 | 0.00% | 0 | 0.00% | 6 | 100.00% | 0 | 0.00% | 0 | 0.00% |
| FDSCMS | 115 | 81 | 70.43% | 10 | 8.70% | 10 | 8.70% | 1 | 0.87% | 13 | 11.30% |
| FDSFMS | 99 | 29 | 29.29% | 0 | 0.00% | 39 | 39.39% | 0 | 0.00% | 31 | 31.31% |
| FINNMS | 11 | 1 | 9.09% | 0 | 0.00% | 10 | 90.91% | 0 | 0.00% | 0 | 0.00% |
| FRENMA | 22 | 15 | 68.18% | 3 | 13.64% | 0 | 0.00% | 1 | 4.55% | 3 | 13.64% |
| GEOGMA | 66 | 21 | 31.82% | 15 | 22.73% | 0 | 0.00% | 1 | 1.52% | 29 | 43.94% |
| GEOGMS | 59 | 25 | 42.37% | 2 | 3.39% | 14 | 23.73% | 2 | 3.39% | 16 | 27.12% |
| GEOLMS | 155 | 100 | 64.52% | 0 | 0.00% | 14 | 9.03% | 0 | 0.00% | 41 | 26.45% |
| GERMMA | 15 | 10 | 66.67% | 1 | 6.67% | 0 | 0.00% | 0 | 0.00% | 4 | 26.67% |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| HESCMS | 128 | 69 | 53.91% | 2 | 1.56% | 13 | 10.16% | 1 | 0.78% | 43 | 33.59% |
| HIEDME | 286 | 198 | 69.23% | 10 | 3.50% | 44 | 15.38% | 2 | 0.70% | 32 | 11.19% |
| HISTMA | 76 | 36 | 47.37% | 2 | 2.63% | 11 | 14.47% | 0 | 0.00% | 27 | 35.53% |
| HLSCMS | 12 | 9 | 75.00% | 1 | 8.33% | 0 | 0.00% | 0 | 0.00% | 2 | 16.67% |
| HORTMS | 55 | 31 | 56.36% | 1 | 1.82% | 11 | 20.00% | 0 | 0.00% | 12 | 21.82% |
| HRWDME | 290 | 123 | 42.41% | 2 | 0.69% | 63 | 21.72% | 5 | 1.72% | 97 | 33.45% |
| INEGMS | 122 | 92 | 75.41% | 5 | 4.10% | 16 | 13.11% | 2 | 1.64% | 7 | 5.74% |
| INSYMI | 355 | 261 | 73.52% | 9 | 2.54% | 48 | 13.52% | 6 | 1.69% | 31 | 8.73% |
| JOURMA | 79 | 48 | 60.76% | 0 | 0.00% | 13 | 16.46% | 0 | 0.00% | 18 | 22.78% |
| KINSMS | 160 | 112 | 70.00% | 11 | 6.88% | 12 | 7.50% | 1 | 0.63% | 24 | 15.00% |
| MATEMS | 1 | 0 | 0.00% | 0 | 0.00% | 1 | 100.00% | 0 | 0.00% | 0 | 0.00% |
| MATHMS | 109 | 71 | 65.14% | 10 | 9.17% | 14 | 12.84% | 0 | 0.00% | 14 | 12.84% |
| MATSMS | 4 | 0 | 0.00% | 0 | 0.00% | 4 | 100.00% | 0 | 0.00% | 0 | 0.00% |
| MEEGME | 1 | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 1 | 100.00% |
| MEEGMS | 90 | 45 | 50.00% | 4 | 4.44% | 11 | 12.22% | 16 | 17.78% | 14 | 15.56% |
| MEPHMS | 101 | 70 | 69.31% | 4 | 3.96% | 12 | 11.88% | 6 | 5.94% | 9 | 8.91% |
| MLANMA | 43 | 26 | 60.47% | 0 | 0.00% | 10 | 23.26% | 2 | 4.65% | 5 | 11.63% |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MUSCMM | 180 | 129 | 71.67% | 0 | 0.00% | 30 | 16.67% | 0 | 0.00% | 21 | 11.67% |
| NURSMS | 117 | 58 | 49.57% | 7 | 5.98% | 9 | 7.69% | 9 | 7.69% | 34 | 29.06% |
| OPANMS | 1 | 0 | 0.00% | 0 | 0.00% | 1 | 100.00% | 0 | 0.00% | 0 | 0.00% |
| OPMGMS | 3251 | 1814 | 55.80% | 46 | 1.41% | 438 | 13.47% | 9 | 0.28% | 944 | 29.04% |
| PADMMP | 100 | 46 | 46.00% | 7 | 7.00% | 16 | 16.00% | 2 | 2.00% | 29 | 29.00% |
| PHEDME | 267 | 158 | 59.18% | 2 | 0.75% | 50 | 18.73% | 2 | 0.75% | 55 | 20.60% |
| PHILMA | 49 | 21 | 42.86% | 0 | 0.00% | 9 | 18.37% | 0 | 0.00% | 19 | 38.78% |
| PHYSMA | 4 | 3 | 75.00% | 1 | 25.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% |
| PHYSMS | 83 | 32 | 38.55% | 12 | 14.46% | 10 | 12.05% | 17 | 20.48% | 12 | 14.46% |
| PLPAMS | 41 | 27 | 65.85% | 2 | 4.88% | 5 | 12.20% | 0 | 0.00% | 7 | 17.07% |
| PLSCMA | 87 | 50 | 57.47% | 5 | 5.75% | 16 | 18.39% | 2 | 2.30% | 14 | 16.09% |
| POSCMS | 85 | 49 | 57.65% | 10 | 11.76% | 11 | 12.94% | 2 | 2.35% | 13 | 15.29% |
| PSYCMA | 77 | 53 | 68.83% | 7 | 9.09% | 0 | 0.00% | 13 | 16.88% | 4 | 5.19% |
| RECRME | 3 | 0 | 0.00% | 2 | 66.67% | 0 | 0.00% | 0 | 0.00% | 1 | 33.33% |
| RESMME | 343 | 219 | 63.85% | 9 | 2.62% | 48 | 13.99% | 3 | 0.87% | 64 | 18.66% |
| RHABMS | 151 | 111 | 73.51% | 6 | 3.97% | 0 | 0.00% | 0 | 0.00% | 34 | 22.52% |
| SCMTMS | 12 | 0 | 0.00% | 0 | 0.00% | 12 | 100.00% | 0 | 0.00% | 0 | 0.00% |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SCWKMS | 340 | 270 | 79.41% | 2 | 0.59% | 53 | 15.59% | 2 | 0.59% | 13 | 3.82% |
| SEEDMA | 315 | 301 | 95.56% | 3 | 0.95% | 0 | 0.00% | 0 | 0.00% | 11 | 3.49% |
| SEEDME | 45 | 25 | 55.56% | 6 | 13.33% | 0 | 0.00% | 0 | 0.00% | 14 | 31.11% |
| SMTHMA | 36 | 15 | 41.67% | 0 | 0.00% | 5 | 13.89% | 0 | 0.00% | 16 | 44.44% |
| SOCIMA | 113 | 62 | 54.87% | 2 | 1.77% | 21 | 18.58% | 0 | 0.00% | 28 | 24.78% |
| SPACMS | 12 | 7 | 58.33% | 0 | 0.00% | 2 | 16.67% | 1 | 8.33% | 2 | 16.67% |
| SPANMA | 79 | 54 | 68.35% | 2 | 2.53% | 7 | 8.86% | 2 | 2.53% | 14 | 17.72% |
| SPEDME | 218 | 100 | 45.87% | 3 | 1.38% | 38 | 17.43% | 2 | 0.92% | 75 | 34.40% |
| STANMS | 116 | 62 | 53.45% | 9 | 7.76% | 19 | 16.38% | 13 | 11.21% | 13 | 11.21% |
| STATMS | 41 | 23 | 56.10% | 14 | 34.15% | 0 | 0.00% | 0 | 0.00% | 4 | 9.76% |
| TESLME | 45 | 21 | 46.67% | 1 | 2.22% | 10 | 22.22% | 2 | 4.44% | 11 | 24.44% |
| THTRMF | 54 | 28 | 51.85% | 0 | 0.00% | 22 | 40.74% | 1 | 1.85% | 3 | 5.56% |
| WDEDME | 112 | 31 | 27.68% | 45 | 40.18% | 0 | 0.00% | 2 | 1.79% | 34 | 30.36% |
| **Over-all** | **16129** | **9986** | **51.02%** | **491** | **6.28%** | **2504** | **22.26%** | **237** | **2.84%** | **2911** | **17.59%** |

**Appendix B:**
**Placement of AEED MS Graduates 2020-2021**

Mary Samoei Su 2020 Not located
Sarah Bagley Sp 2020 Job with NY Extension Service
Sarah Gregory Su 2020 Job with Pennsylvania Extension Service
Olivia Foster Su 20 Job with Arkansas Extension
Austin Wise Su 20 Graduate School
Kristina Bautista Su 20 Science Teacher in Texas

Brad Borges Fa 20 Teaching at Texas University
Bayleah Cooper Fa 20 Job with Experiment Station in South Carolina

Anika Parks – Sp 21 Intern in North Carolina
Alex McLeod – Sp 21 Graduate School in Auburn
Becky Sterner – Sp 21 Job with Arkansas Extension Service