



**NEW ACADEMIC PROGRAM-STANDALONE UNDERGRADUATE MINOR  
ADDITIONAL INFORMATION FORM**

- I. MINOR DESCRIPTION**– provide a marketing/promotional description for the proposed minor. Include the purpose, nature, and highlights of the curriculum, faculty expertise, etc. The description should match departmental and college websites, handouts, promotional materials, etc.

The AETI Life Sciences Education minor is designed to meet the needs of students who are interested in pursuing a leadership role in an educational setting outside of the traditional classroom environment. Students in the minor will be able to facilitate the exchange of key ideas and practices learned and developed via their major course of study. The exchange of content and ideas, with interested parties, will be facilitated in a non-formal education setting. University of Arizona graduates are highly educated in content topics that will undoubtedly help to improve their local communities. The content and focus of the minor would benefit graduates with the ability to share that information with the public through non-formal education techniques and training. The coursework will prepare graduates to lead and impact diverse communities by understanding that education happens in many formats and environments through non-formal facilitation techniques centered in communication, collaboration and creative thinking.

Completion of this minor will allow students to communicate information in a creative and effective manner. Students completing the minor will understand the fundamental concepts of andragogy and pedagogy to better deliver content focused on improving the lives of consumers in a wide variety of topics through traditional and digital formats within a non-formal setting.

The faculty are experts in leading and facilitating learning opportunities outside of the traditional classroom setting. Through the incorporation of modeling and multiple interactive learning methods the students who complete the minor will be able to utilize the methodology and planning concepts shared throughout the coursework to enhance their own ability to convey information in a fast-paced and engaging manner.

**II. MINOR JUSTIFICATION** - The justification for the minor comes from the numerous conversations that the faculty has had with past and current students from within the department and the college. The conversations made it very apparent that many of our past and current students would love to have a means to utilize the content knowledge gleaned from their major courses to help improve the communities where they live and work. The students share a true thirst for access to coursework that would prepare them to be able to navigate non-formal education settings and allow them to be true change agents educating the population about real-world, timely topics related to agriculture and the life sciences. Numerous stakeholders have also informed the department that many of our recent graduates are now offering short courses and professional development workshops related directly to their major courses. The training within this non-formal education minor would provide graduates with the tools needed to be highly effective and impactful presenters and educators. The Dean of the College of Agriculture has also expressed an interest in this minor as it is seen as an outlet for students within the Veterinary Science program who wish to supplement their training with the ability to provide education on a wide variety of animal husbandry and care techniques. The combination of very strong and diverse majors within the college when coupled with this new minor should provide students with a plethora of professional choices and allow them to truly serve as change agents in the greater community.

**III. MINOR REQUIREMENTS**– complete the table below by listing the minor requirements, including minimum number of credit hours, required core, electives, and any special requirements. Note: information in this section must be consistent throughout the proposal documents (comparison charts, curricular/assessment map, etc.). Delete the EXAMPLE column before submitting/uploading.

|  |   |
|--|---|
| <b>Minimum total units required</b>  | 18  |
| <b>Minimum upper-division units required</b>   | 9   |
| <b>Total transfer units that may apply to minor</b>  | 3   |
| <b>List any special requirements to declare/admission to this minor (completion of specific coursework, minimum GPA, interview, application, etc.)</b> | -Meet with academic advisor within the department |

|  |  |
|--|--|
| <p><b>Minor requirements. List all required minor requirements including core and electives. Courses listed must include course prefix, number, units, and title. Mark new coursework (New). Include any limits/restrictions needed (house number limit, etc.). Provide email(s)/letter(s) of support from home department head(s) for courses not owned by your department.</b></p> | <p>Core:<br/>Complete 3 courses (9 units):<br/>AED 462, Curriculum Development (3 units)<br/>AED 438, The Teaching of Secondary School Agricultural Science (3 units)<br/>AED 450, Total Program Development (3 units)</p> <p>Electives: Complete 6 units from the following:<br/>AED 301, Youth Leadership Development (3 units)<br/>AED 437, Methods of Facilitating Learning (3 units)</p> <p>Experiential Learning: Complete 3 units<br/>AED 493, Internship (3 units)</p> |
| <p><b>Internship, practicum, applied course requirements (Yes/No). If yes, provide description.</b></p>  | <p>Yes. Complete 3 units of internship or practicum with a local firm:<br/>AED 493</p>   |
| <p><b>Additional requirements (provide description)</b></p>  | <p>No Additional Requirements</p>  |
| <p><b>Any <u>double-dipping restrictions</u> (Yes/No)? If yes, provide description.</b></p>  | <p>Yes – Double dipping is allowed with AED 301</p>  |

**IV. CURRENT COURSES**—using the table below, list all existing courses included in the proposed minor. You can find information to complete the table using the [UA course catalog](#) or [UAnalytics](#) (Catalog and Schedule Dashboard> “Printable Course Descriptions by Department” On Demand Report; right side of screen). If the courses listed belong to a department that is not a signed party to this implementation request, upload the department head’s permission to include the courses in the proposed minor and information regarding accessibility to and frequency of offerings for the course(s). Upload letters of support/emails from department heads to the “Letter(s) of Support” field on the UAccess workflow form. Add rows to the table, as needed.

| Course prefix and number (include cross-listings) | Units | Title | Course Description | Pre-requisites | Modes of delivery (online, | Typically Offered | Dept signed party to |
|---|-------|-------|--------------------|----------------|----------------------------|-------------------|----------------------|
|---|-------|-------|--------------------|----------------|----------------------------|-------------------|----------------------|

|         |   |   |   |         | <b>in-person,<br/>hybrid)</b> | <b>(F, W, Sp,<br/>Su)</b> | <b>proposal?<br/>(Yes/No)</b> |
|---------|---|---|---|---------|-------------------------------|---------------------------|-------------------------------|
| AED 462 | 3 | Curriculum Development                                | Prepares student teachers for their year in preservice. Provides introductory material on curriculum development, record books and experiential education, and the student organization as it relates to agricultural education.  | None    | In-person                     | Sp                        | No                            |
| AED 438 | 3 | The Teaching of Secondary School Agricultural Science | Specific methods, objectives, organization of subject matter, and evaluation in the various subjects.   | AED 462 | In-person                     | F                         | No                            |
| AED 450 | 3 | Total Program Development                             | This course is designed to prepare preservice agriculture teachers to work with the intracurricular and peripheral programs that are an integral part of the three circle model of agricultural education. Course content will include: experiential learning, student organizations, and school and community relationships in a formal education setting. | None    | In-person                     | Sp                        | No                            |
| AED 493 | 3 | Internship  | Specialized work on an individual basis, consisting of training and practice in actual service in a technical, business, or governmental establishment.   | None    | In-Person, Online, Hybrid     | F, W, Sp, Su              | No                            |
| AED 301 | 3 | Youth Leadership Development                          | Characteristics of effective advisors, leadership styles, strategies for the management and organization of youth groups in agriculture, practice in leadership development techniques.   | None    | In-Person                     | F                         | No                            |
| AED 437 | 3 | Methods of Facilitating Learning                      | Students will plan, facilitate, and assess learning experiences for a myriad of non-formal teaching/learning situations. Students will be able to identify and apply resources and methods for facilitating learning with multiple audiences. Students will also learn how to develop objectives and assessments,   | None    | In-Person                     | Sp                        | No                            |



|                     |  |             |
|---------------------|--|-------------|
| Mr. Quintin Molina  | Teach AED 301; AED 438<br>Supervise AED 493 Internship | CV attached |
| Mr. Breanna Watkins | Advise Students within the Minor                       | CV attached |

**VII. STUDENT LEARNING OUTCOMES AND CURRICULUM MAP**—describe what students should know, understand, and/or be able to do at the conclusion of this minor. Work with [Office of Instruction and Assessment](#) to create a curricular map using Taskstream. Include your curricular map in this section (refer to Appendix A for sample Curriculum Map generated using Taskstream).

**Curriculum Map:**

| <b>Minor Life Science Education Map (Streamlined)</b>                        |   |   |   |  |   |   |
|--|---|---|---|--|---|---|
| Courses and Activities Mapped to Minor in Life Science Education Outcome Set |   |   |   |  |   |   |
| <b>Outcome</b>   |   |   |   |  |   |   |
|  | <b>Outcome 1:</b><br>Identify and incorporate a wide variety of instructional resources and materials to develop and design curriculum that meets the needs of the learner. | <b>Outcome 2</b><br>Identify and implement key instructional methodologies to engage learners using various activities and engagement strategies for all learners | <b>Outcome 3</b><br>Evaluate and assess the progress of learners in the non-formal learning environment based on sound measurement metrics. | <b>Outcome 4</b><br>Enhance community development through community relationships and community based organizations. | <b>Outcome 5</b><br>Utilize key leadership development concepts to create community based non-formal education environments | <b>Outcome 6</b><br>Engage in a content specific experiential learning internship experience. |
| <b>Courses and Learning Activities</b>                                       |   |   |   |  |   |   |
| AED 462<br>Curriculum Development  | I   | I   | I   |  |   |   |
| AED 438  | P, A  | P   | P   |  |   |   |

|  |         |         |         |         |         |      |
|--|---------|---------|---------|---------|---------|------|
| Teaching of Secondary School Agricultural Science  |         |         |         |         |         |      |
| AED 450<br>Total Program Development               |         |         |         | I, P, A | I, P, A | I, P |
| AED 493<br>Internship                              |         |         |         |         |         | P, A |
| AED 301<br>Youth Leadership Development            |         |         |         | I, P, A | I, P, A |      |
| AED 437<br>Methods of Facilitating Learning        | I, P, A | I, P, A | I, P, A |         |         |      |
| <b>I = Introduced; P = Practiced; A = Assessed</b> |         |         |         |         |         |      |

**VIII. ASSESSMENT PLAN FOR STUDENT LEARNING-** using the table below, provide a schedule for program assessment of intended student learning outcomes 1) while students are in the program and 2) after completion of the minor. Add rows as needed. Delete **EXAMPLE** row.

| Learning Outcomes   | Sources(s) of Evidence   | Assessment Measures   | Data Collection Points   |
|---|--|---|--|
| <b>Outcome 1:</b><br>Identify and incorporate a wide variety of instructional resources and materials to develop and design curriculum that meets the needs of the learner. | <ul style="list-style-type: none"> <li>• Course-embedded assessments</li> <li>• Essays</li> <li>• Student Presentations</li> </ul> | <ul style="list-style-type: none"> <li>• Exams, papers, presentations, discussions</li> <li>• Curriculum Presentation</li> <li>• Workshop Design &amp; Presentation</li> </ul>        | <ul style="list-style-type: none"> <li>• End of AED 437; AED 438</li> </ul>  |
| <b>Outcome 2:</b><br>Identify and implement key instructional methodologies to engage learners using various activities and engagement strategies for all learners          | <ul style="list-style-type: none"> <li>• Course-embedded assessments</li> <li>• Essays</li> <li>• Student Presentations</li> </ul> | <ul style="list-style-type: none"> <li>• Early Field Experiences</li> <li>• Workshop Design &amp; Presentation</li> <li>• Curriculum Presentations</li> </ul>                         | <ul style="list-style-type: none"> <li>• End of AED 462; 438; 437</li> </ul> |
| <b>Outcome 3:</b><br>Evaluate and assess the progress of learners in the non-formal learning environment based on sound measurement metrics.                                | <ul style="list-style-type: none"> <li>• Course-embedded assessments</li> <li>• Essays</li> <li>• Student Presentations</li> </ul> | <ul style="list-style-type: none"> <li>• Exams, papers, presentations, discussions</li> <li>• Assessment Project – Formative/Summative</li> <li>• Curriculum Presentations</li> </ul> | <ul style="list-style-type: none"> <li>• End of; 462; 438; 437</li> </ul>    |

|  |   |   |  |
|--|---|---|--|
|  |   | <ul style="list-style-type: none"> <li>• Workshop Evaluation</li> </ul>   |  |
| <b>Outcome 4:</b><br>Enhance community development through community relationships and community based organizations.        | <ul style="list-style-type: none"> <li>• Course-embedded assessments</li> <li>• Essays</li> <li>• Student Presentations</li> </ul>  | <ul style="list-style-type: none"> <li>• Personal Evaluation of Leadership Skills</li> <li>• Group Project on Key Leadership Traits</li> <li>• Community Needs Assessment</li> <li>• Experiential Learning Content Development</li> </ul> | <ul style="list-style-type: none"> <li>• End of; AED 301; AED 450</li> </ul>                                     |
| <b>Outcome 5:</b><br>Utilize key leadership development concepts to create community based non-formal education environments | <ul style="list-style-type: none"> <li>• Course embedded assessments</li> <li>• Exams and Presentations</li> <li>• Early Field Experiences/Observations</li> </ul>              | <ul style="list-style-type: none"> <li>• Personal Evaluation of Leadership Skills</li> <li>• Group Project on Key Leadership Traits</li> <li>• Community Needs Assessment</li> <li>• Experiential Learning Content Development</li> </ul> | <ul style="list-style-type: none"> <li>• End of; AED 301; AED 450; AED 493</li> </ul>                            |
| <b>Outcome 6:</b><br>Engage in a content specific experiential learning internship experience.                               | <ul style="list-style-type: none"> <li>• Internship Agreement Packet</li> <li>• Mid &amp; Final Intern Evaluation from Packet</li> <li>• Final Internship Evaluation</li> </ul> | <ul style="list-style-type: none"> <li>• Internship Experience Blog Posts</li> <li>• Summative Internship Experience Portfolio</li> <li>• Final Presentation of Internship Experience</li> </ul>  | <ul style="list-style-type: none"> <li>• End of Each Course</li> <li>• End of ALC/AED/AGTM 493 Course</li> </ul> |

**IX. ANTICIPATED STUDENT ENROLLMENT**-complete the table below. What concrete evidence/data was used to arrive at the numbers?

| <b>5-YEAR PROJECTED ANNUAL ENROLLMENT</b> |                      |                      |                      |                      |                      |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|
|   | 1 <sup>st</sup> Year | 2 <sup>nd</sup> Year | 3 <sup>rd</sup> Year | 4 <sup>th</sup> Year | 5 <sup>th</sup> Year |
| Number of Students                        | 6                    | 8                    | 10                   | 15                   | 20                   |

Data/evidence used to determine projected enrollment numbers:

The projections are calculated utilizing current student interest and conversations/meetings between current faculty and students with the College of Agriculture and Life Sciences who have expressed interest in this proposed minor.

**X. ANTICIPATED MINORS AWARDED**- complete the table below, beginning with the first year in which minors will be awarded. How did you arrive at these numbers? Take into consideration departmental retention rates.

|  |
|--|
| <b>PROJECTED MINORS AWARDED ANNUALLY</b> |
|--|



|                  | 1 <sup>st</sup> Year | 2 <sup>nd</sup> Year | 3 <sup>rd</sup> Year | 4 <sup>th</sup> Year | 5 <sup>th</sup> Year |
|------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Number of Minors | 0                    | 5                    | 8                    | 12                   | 16                   |

Data/evidence used to determine number of anticipated minors awarded annually:

The projections are calculated utilizing current interest from students within the college and the increase in number is related to the ability to market the minor once it has been approved. The department's retention rate has remained high over the last four years the time to completion for current major and minor degrees has been on par with those of similar degree programs.

**XI. PROGRAM DEVELOPMENT TIMELINE-** describe plans and timelines for 1) marketing the minor and 2) student recruitment activities.

The Department of Agricultural Education, Technology & Innovation plans to begin marketing the minor in the fall 2020 semester. The marketing plan will consist of email blasts to multiple advisor groups throughout the UArizona campus as well as presentations on the minor within current AED, AGTM and ALC courses. The department will also share the information during tabling events such as the Meet Your Major event in October and the numerous College of Agriculture and Life Sciences open houses, as well as share the information via the college recruiters who visit multiple high schools during both the fall and spring semesters. The plan is to begin enrolling students into the minor during the spring 2021 academic advising sessions beginning in Fall 2021.

**XII. DIVERSITY AND INCLUSION-**describe how you will recruit diverse students and faculty to this minor. In addition, describe retention efforts in place or being developed in order to retain students.

The department consists of an extremely diverse faculty which encompasses a true desire to provide learners with a holistic approach to teaching and learning. The recruitment plan will engage students from many diverse majors and will bring students in from numerous colleges across our diverse campus. The fact that the minor is designed to enhance the learning that occurs within the student's chosen major grants tremendous opportunity for diversity of not only the students involved but the streams of thoughts and ideas each unique student will bring to the minor.

Retention of students will incorporate many facets of inclusion to help maintain a consistent connection with the students

enrolled within the minor. The department will utilize multiple digital platforms to stay connected to students and is extremely integrated within multiple student organizations within the college and university system that provides students with diverse options for finding and maintaining a connection to the minor and the department. The students within the minor will be provided with continuous access to advising as well as the faculty who are engaged in the coursework within the minor. The goal of the department is to provide a holistic and inclusive environment that all but guarantees student success.

**BUDGET PROJECTION FORM**
**Name of Proposed Program or Unit:**

| Budget Contact Person:  | Projected              |                         |                         |
|---|------------------------|-------------------------|-------------------------|
|   | 1st Year<br>2021- 2022 | 2nd Year<br>2022 - 2023 | 3rd Year<br>2023 - 2024 |
| <b>METRICS</b>  |                        |                         |                         |
| Net increase in annual college enrollment UG                  | 10                     | 15                      | 15                      |
| Net increase in college SCH UG                                | 180                    | 270                     | 270                     |
| Net increase in annual college enrollment Grad                | 0                      | 0                       | 0                       |
| Net increase in college SCH Grad                              | 0                      | 0                       | 0                       |
| Number of enrollments being charged a Program Fee             | 0                      | 0                       | 0                       |
| New Sponsored Activity (MTDC)                                 | 0                      | 0                       | 0                       |
| Number of Faculty FTE   | 0                      | 0                       | 0                       |
| <b>FUNDING SOURCES</b>  |                        |                         |                         |
| <b><u>Continuing Sources</u></b>                              |                        |                         |                         |
| UG RCM Revenue (net of cost allocation)                       | 0                      | 0                       | 0                       |
| Grad RCM Revenue (net of cost allocation)                     | 0                      | 0                       | 0                       |
| Program Fee RCM Revenue (net of cost allocation)              | 0                      | 0                       | 0                       |
| F and A Revenues (net of cost allocations)                    | 0                      | 0                       | 0                       |
| UA Online Revenues  | 0                      | 0                       | 0                       |
| Distance Learning Revenues                                    | 0                      | 0                       | 0                       |
| Reallocation from existing College funds (attach description) | 0                      | 0                       | 0                       |
| Other Items (attach description)                              | 0                      | 0                       | 0                       |
| <b>Total Continuing</b>                                       | <b>\$ -</b>            | <b>\$ -</b>             | <b>\$ -</b>             |
| <b><u>One-time Sources</u></b>                                |                        |                         |                         |
| College fund balances   | 0                      | 0                       | 0                       |
| Institutional Strategic Investment                            | 0                      | 0                       | 0                       |
| Gift Funding  | 0                      | 0                       | 0                       |
| Other Items (attach description)                              | 0                      | 0                       | 0                       |
| <b>Total One-time</b>   | <b>\$ -</b>            | <b>\$ -</b>             | <b>\$ -</b>             |
| <b>TOTAL SOURCES</b>  | <b>\$ -</b>            | <b>\$ -</b>             | <b>\$ -</b>             |
| <b>EXPENDITURE ITEMS</b>                                      |                        |                         |                         |
| <b><u>Continuing Expenditures</u></b>                         |                        |                         |                         |
| Faculty   | 0                      | 0                       | 0                       |
| Other Personnel   | 0                      | 0                       | 0                       |
| Employee Related Expense                                      | 0                      | 0                       | 0                       |
| Graduate Assistantships                                       | 0                      | 0                       | 0                       |
| Other Graduate Aid  | 0                      | 0                       | 0                       |
| Operations (materials, supplies, phones, etc.)                | 0                      | 0                       |                         |
| Additional Space Cost   | 0                      | 0                       | 0                       |
| Other Items (attach description)                              | 0                      | 0                       | 0                       |
| <b>Total Continuing</b>                                       | <b>\$ -</b>            | <b>\$ -</b>             | <b>\$ -</b>             |
| <b><u>One-time Expenditures</u></b>                           |                        |                         |                         |
| Construction or Renovation                                    | 0                      | 0                       | 0                       |
| Start-up Equipment  | 0                      | 0                       | 0                       |
| Replace Equipment   | 0                      | 0                       | 0                       |
| Library Resources   | 0                      | 0                       | 0                       |
| Other Items (attach description)                              | 0                      | 0                       | 0                       |
| <b>Total One-time</b>   | <b>\$ -</b>            | <b>\$ -</b>             | <b>\$ -</b>             |
| <b>TOTAL EXPENDITURES</b>                                     | <b>\$ -</b>            | <b>\$ -</b>             | <b>\$ -</b>             |
| <b>Net Projected Fiscal Effect</b>                            | <b>\$ -</b>            | <b>\$ -</b>             | <b>\$ -</b>             |