

# 2+2 Degree Plan Checklist Associate of Science in Liberal Arts and Sciences BS in Mathematics (Applied Mathematics)



### Arkansas State University - Beebe<sup>1</sup> Associate of Science in Liberal Arts and Sciences<sup>2</sup>

| Possible Prerequisites |      | Semester                                                                        | Hours | Grade |  |
|------------------------|------|---------------------------------------------------------------------------------|-------|-------|--|
| ENG                    | 0023 | College Literacy (taken with ENG 1003 – Freshman English I)                     |       | N/C   |  |
| MATH                   | 0112 | Review for College Algebra (taken with MATH 1023 – College Algebra)             |       | N/C   |  |
| MATH                   | 0042 | Review for Quantitative Literacy (taken with MATH 1043 – Quantitative Literacy) |       | N/C   |  |

#### **General Education Requirements (35 credit hours)**

| English, | /Commu     | unication (12 credit hours)                | UCA <sup>3</sup> | Semester | Hours | Grade |
|----------|------------|--------------------------------------------|------------------|----------|-------|-------|
| ENG      | 1003       | Freshman English I                         | WRTG 1310        |          | 3     |       |
| ENG      | 1013       | Freshman English II                        | WRTG 1320        |          | 3     |       |
| SPCH     | 1203       | Oral Communications                        | COMM 1300        |          | 3     |       |
|          |            | Choose one:                                |                  |          |       |       |
| ENG      | 2003       | World Literature I                         | ENGL 2305        |          | 3     |       |
| ENG      | 2013       | World Literature II                        | ENGL 2306        |          | 3     |       |
| PHIL     | 1103       | Introduction to Philosophy                 | PHIL 1301        |          |       |       |
| Mather   | natics (3  | credit hours)                              | UCA              | Semester | Hours | Grade |
| MATH     | 1023       | College Algebra                            | MATH 1390        |          | 3     |       |
| Lab Scie | ences (8   | credit hours)                              | UCA              | Semester | Hours | Grade |
| BIOL     | 1004       | Biology for General Education              | BIOL 1400        |          | 4     |       |
|          |            | (or other ASLAS Life Science with Lab)     |                  |          | 4     |       |
| PHSC     | 1204       | Physical Science                           | PHYS 1400        |          | 4     |       |
|          |            | (or other ASLAS Physical Science with Lab) |                  |          | 4     |       |
| Fine Ar  | ts (3 cred | dit hours)                                 | UCA              | Semester | Hours | Grade |
|          |            | Choose one:                                |                  |          |       |       |
| ART      | 2503       | Fine Arts - Visual                         | ART 2300         |          |       |       |
| MUS      | 2503       | Fine Arts - Musical                        | MUS 2300         |          | 3     |       |
| THEA     | 2503       | Fine Arts – Theatre                        | THEA 2300        |          |       |       |
|          |            | (or other ASLAS Fine Arts)                 |                  |          |       |       |
| Social S | ciences    | (6 credit hours)                           | UCA              | Semester | Hours | Grade |
|          |            | Choose one:                                |                  |          |       |       |
| HIST     | 2763       | The United States to 1876                  | HIST 2301        |          | 3     |       |
| HIST     | 2773       | The United States since 1876               | HIST 2302        |          | 3     |       |
| POSC     | 2103       | Introduction to United States Government   | PSCI 1330        |          |       |       |
|          |            | Choose one:                                |                  |          |       |       |
| HIST     | 1013       | World Civilization to 1660                 | HIST 1310        |          | 3     |       |
| HIST     | 1023       | World Civilization since 1660              | HIST 1320        |          |       |       |
| Social o | r Behav    | ioral Science Elective (3 credit hours)    | UCA              | Semester | Hours | Grade |
|          |            | Choose one:                                |                  |          |       |       |
| PSY      | 2013       | Introduction to Psychology                 | PSYC 1300        |          | 3     |       |
| SOC      | 2213       | Principles of Sociology                    | SOC 1300         |          | J     |       |
|          |            | (or other ASLAS Social Science )           |                  |          |       |       |

#### Mathematics Foundation & Ancillary Program Requirement (25 credit hours)

|      |      |                                                         | UCA       | Semester | Hours | Grade |
|------|------|---------------------------------------------------------|-----------|----------|-------|-------|
| MATH | 1033 | Plane Trigonometry                                      | MATH 1392 |          | 3     |       |
| MATH | 2205 | Calculus I                                              | MATH 1496 |          | 5     |       |
| MATH | 2215 | Calculus II                                             | MATH 1497 |          | 5     |       |
|      |      | Choose one of the two-course combinations listed below: |           |          |       |       |
| ECON | 2313 | Principles of Macroeconomics                            | ECON 2320 |          |       |       |
| ECON | 2323 | Principles of Microeconomics                            | ECON 2321 |          |       |       |
| CHEM | 1014 | General Chemistry I                                     | CHEM 1450 |          |       |       |
| CHEM | 1024 | General Chemistry II                                    | CHEM 1451 |          | 6-8   |       |
| PHYS | 2054 | General Physics I                                       | PHYS 1410 |          |       |       |
| PHYS | 2064 | General Physics II                                      | PHYS 1420 |          |       |       |
| PHYS | 2074 | University Physics I                                    | PHYS 1441 |          |       |       |
| PHYS | 2084 | University Physics II                                   | PHYS 1442 |          |       |       |
|      |      | ASLAS Approved Electives                                |           |          | 4-6   |       |

Total Hours: 60<sup>4</sup>



## 2+2 Degree Plan Checklist Associate of Science in Liberal Arts and Sciences BS in Mathematics (Applied Mathematics)



# University of Central Arkansas Bachelor of Science in Mathematics (Applied Mathematics) UCA Courses (60 credit hours)<sup>5</sup>

|      |      |                                                                     | Semester | Hours | Grade |
|------|------|---------------------------------------------------------------------|----------|-------|-------|
| MATH | 2335 | Transition to Advanced Mathematics                                  |          | 3     |       |
| MATH | 2441 | Introduction to Mathematical Computation                            |          | 4     |       |
| MATH | 2471 | Calculus III                                                        |          | 4     |       |
| MATH | 3311 | Statistical Methods                                                 |          | 3     |       |
| MATH | 3320 | Linear Algebra (UD UCA Core: I)                                     |          | 3     |       |
| MATH | 3331 | Ordinary Differential Equations I (UD UCA Core: C)                  |          | 3     |       |
| MATH | 4306 | Modeling & Simulation (UD UCA Core: Z)                              |          | 3     |       |
|      |      | Choose One:                                                         |          |       |       |
| MATH | 4315 | Introduction to Partial Differential Equations                      |          | 3     |       |
| MATH | 4340 | Numerical Methods                                                   |          | 3     |       |
| MATH | 4373 | Regression Analysis                                                 |          |       |       |
| MATH | 4371 | Introduction to Probability (UD UCA Core: R)                        |          | 3     |       |
|      |      | Math Major Elective (4000 Level - From Approved List - See Advisor) |          | 3     |       |
|      |      | Math Major Elective (4000 Level - From Approved List - See Advisor) |          | 3     |       |
|      |      | Upper Division Minor Field Course (UD UCA Core: D)                  |          | 3     |       |
|      |      | Upper Division Minor Field Course                                   |          | 3     |       |
|      |      | Upper Division Minor Field Course                                   |          | 3     |       |
|      |      | Upper Division Minor Field Course                                   |          | 3     |       |
|      |      | Upper Division Minor Field Course                                   |          | 3     |       |
|      |      | Upper Division Minor Field Course                                   |          | 3     |       |
|      |      | Minor Field Course                                                  |          | 3     |       |
|      |      | Minor Field Course                                                  |          | 3     |       |
|      |      | General Elective                                                    |          | 1     |       |
|      |      |                                                                     |          |       |       |

Total Hours: 120<sup>6</sup>

<sup>&</sup>lt;sup>1</sup> Please see your ASUB advisor for degree and graduation information.

<sup>&</sup>lt;sup>2</sup> Agreement requirements are guaranteed in accordance with the academic year of initial enrollment at ASUB, not to precede the academic year during which the agreement first took effect. A period of non-enrollment of 12 months or more requires that the student adhere to the agreement revision corresponding with the academic year of re-enrollment.

<sup>&</sup>lt;sup>3</sup> UCA course is either guaranteed by ACTS (acts.adhe.edu) or by UCA Department Chair approval (if blank, elective credit will be awarded).

<sup>&</sup>lt;sup>4</sup> Students completing the AS in Liberal Arts and Sciences degree requirements, as shown above, with a minimum 2.0 cumulative GPA, will have satisfied the UCA Lower-Division Core and will be admitted to the BS in Mathematics (Applied Mathematics) degree program as a junior.

<sup>&</sup>lt;sup>5</sup> In order to receive important communications about transferring to UCA, students are encouraged to create a UCA student account at gopurple.uca.edu. For more information about the 2+2 program, students may also send email inquiries to ucatransfer@uca.edu.

<sup>&</sup>lt;sup>6</sup> This agreement requires 120 credit hours as follows: maximum 60 at ASUB and remaining 60 at UCA (40 of which must be upper-division).