

Mathematics (3 credit hours)

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



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

		Associate of Science in Liberal Arts and Sc	ielices			
Possible Prere	equisites			Semester	Hours	Grade
UNIV	1003	Principles of Academic Success (required if registering for a remed	ial course)		(3)	
ENG	0013	Precollege Literacy			N/C	
ENG	0023	College Literacy (taken with ENG 1003 – Freshman English I)			N/C	
MATH	0013	Foundations of Algebra I			N/C	
MATH	0112	Review for College Algebra (taken with MATH 1023 – College Alge	bra)		N/C	
		General Education Requirements (35 credit ho	ours)			
English/Comr	municatior	n (12 credit hours)	UCA <sup>2</sup>	Semester	Hours	Grade
ENG	1003	Freshman English I	WRTG 1310		3	
ENG	1013	Freshman English II	WRTG 1320		3	

ENG	1003	Freshman English I	WRTG 1310		3	
ENG	1013	Freshman English II	WRTG 1320		3	
SPCH	1203	Oral Communications	COMM 1300		3	
ENG	2003	World Literature I or	ENGL 2305		3	
ENG	2013	World Literature II	ENGL 2306			

MATH	1023	College Algebra	MATH 1390		3	
Lab Sciences	s (8 credit h	ours)	UCA	Semester	Hours	Grade
BIOL	1004	Biology for General Education	BIOL 1400		4	
PHYS	2074	University Physics I	PHYS 1441		4	

**UCA** 

Semester

**Hours** 

Grade

Fine Arts (3	credit hours	5)	UCA	Semester	Hours	Grade
ART	2503	Fine Arts – Visual or	ART 2300			
MUS	2503	Fine Arts – Musical or	MUS 2300			
THEA	2503	Fine Arts – Theatre or	THEA 2300		2	
THEA	2513	Fine Arts – Film or			5	
HUM	2003	Introduction to Humanities I or				
HUM	2013	Introduction to Humanities II				

Social Sciences (6 credit hours)		UCA	Semester	Hours	Grade	
HIST	2763	The United States to 1876 or	HIST 2301			
HIST	2773	The United States Since 1876 or	HIST 2302		3	Į,
POSC	2103	Introduction to United States Government	PSCI 1330			
HIST	1013	World Civilization to 1660 or	HIST 1310		2	
HIST	1023	World Civilization since 1660	HIST 1320		3	

Social or Be	havioral Sci	ence Elective (3 credit hours)	UCA	Semester	Hours	Grade
GEOG	2613	Introduction to Geography or	GEOG 1305		2	
GEOG	2603	World Regional Geography or	GEOG 1300			
SOC	2213	Principles of Sociology or	SOC 1300		3	
PSY	2013	Introduction to Psychology	PSYC 1300			

#### Physics Foundation (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	
PHYS	2084	University Physics II	PHYS 1442		4	
		General Elective			3	
		General Elective			3	
		General Elective			2	

Total Hours: 60<sup>3</sup>



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### University of Central Arkansas Bachelor of Science in Physics (Physics) UCA Courses (60 credit hours)<sup>4</sup>

		Semester	Hours	Grade
1340	Introduction to Programming		3	
2471	Calculus III		4	
3331	Ordinary Differential Equations		3	
3320	Ethics or		2	
3325	Political Philosophy		3	
2320	Introductory Computational Physics		3	
2443	University Physics 3		4	
3210	Experiments in Physics 1		2	
3220	Experiments in Physics 2 <sup>5</sup>		2	
3341	Mathematical Methods in Physics		3	
3342	Mechanics		3	
3343	Thermal Physics		3	
3353	Quantum Mechanics 1		3	
3360	Electromagnetism 1		3	
3361	Electromagnetism 2		3	
4111	Senior Capstone 1		1	
4211	Senior Capstone 2		2	
3310	Technical Writing		3	
	Upper Division Major Elective		3	
	Upper Division Major Elective		3	
	Upper Division General Elective		3	
	General Elective		3	
	2471 3331 3320 3325 2320 2443 3210 3220 3341 3342 3343 3353 3360 3361 4111 4211	2471 Calculus III 3331 Ordinary Differential Equations 3320 Ethics or 3325 Political Philosophy 2320 Introductory Computational Physics 2443 University Physics 3 3210 Experiments in Physics 1 3220 Experiments in Physics 2 <sup>5</sup> 3341 Mathematical Methods in Physics 3342 Mechanics 3343 Thermal Physics 3353 Quantum Mechanics 1 3360 Electromagnetism 1 3361 Electromagnetism 2 4111 Senior Capstone 1 4211 Senior Capstone 2 3310 Technical Writing Upper Division Major Elective Upper Division Major Elective Upper Division General Elective	1340 Introduction to Programming 2471 Calculus III 3331 Ordinary Differential Equations 3320 Ethics or 3325 Political Philosophy 2320 Introductory Computational Physics 2443 University Physics 3 3210 Experiments in Physics 1 3220 Experiments in Physics 2 <sup>5</sup> 3341 Mathematical Methods in Physics 3342 Mechanics 3343 Thermal Physics 3353 Quantum Mechanics 1 3360 Electromagnetism 1 3361 Electromagnetism 2 4111 Senior Capstone 1 4211 Senior Capstone 2 3310 Technical Writing Upper Division Major Elective Upper Division Major Elective Upper Division General Elective	1340         Introduction to Programming         3           2471         Calculus III         4           3331         Ordinary Differential Equations         3           3320         Ethics or         3           3325         Political Philosophy         3           2320         Introductory Computational Physics         3           2443         University Physics 3         4           3210         Experiments in Physics 1         2           3220         Experiments in Physics 2 <sup>5</sup> 2           3341         Mathematical Methods in Physics         3           3342         Mechanics         3           3343         Thermal Physics         3           3353         Quantum Mechanics 1         3           3360         Electromagnetism 1         3           3361         Electromagnetism 2         3           4111         Senior Capstone 1         1           4211         Senior Capstone 2         2           3310         Technical Writing         3           Upper Division Major Elective         3           Upper Division General Elective         3

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

<sup>1</sup> See your ASU-Beebe advisor for degree and graduation information.

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<sup>&</sup>lt;sup>2</sup> UCA transfer course designations are either guaranteed by ACTS (acts.adhe.edu) or have been approved as a substitution by UCA. Unless otherwise noted, courses for which no UCA equivalent course is listed would transfer in as elective credit.

<sup>&</sup>lt;sup>3</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 requirements and will be admitted to the BS in Physics (Physics) degree program as a junior.

<sup>&</sup>lt;sup>4</sup> For more specific information about degree requirements within the junior and senior years at UCA, please review the UCA Undergraduate Bulletin (<a href="http://uca.edu/ubulletin">http://uca.edu/ubulletin</a>) and consult your UCA academic advisor.

<sup>&</sup>lt;sup>5</sup> PHYS 2443, 3210, 3220, 4111 and 4211 is a 5-semester sequence of courses which will require PHYS 3220 to be taken over a summer term.

<sup>&</sup>lt;sup>6</sup> This degree program requires a total of <u>120</u> semester credit hours, including at least 40 upper-division credit hours completed at UCA.