

# LIBERTY

UNIVERSITY.

ONLINE

**Physics Education Certificate**  
2022-2023 Certificate Completion Plan

**Important:** This certificate plan is effective for those starting in the fall 2022 through summer 2023. This certificate plan will remain in effect for students who do not break enrollment or who do not change certificates.

The **add-on physics endorsement** is an option for:

Teachers who wish to add on an endorsement to teach physics courses in grades 6-12.

- Teachers who are already licensed in another science discipline
- Teacher Candidates who are enrolled in a teacher preparation program that leads to initial licensure in another science discipline. This certificate provides eligibility to add a physics endorsement, certifying them to teach physics courses in grades 6-12.

*\*Endorsement for teacher candidates with a science education major in another discipline*

<b><u>REQUIRED COURSES (21 hours)*</u></b>		<b><u>Hrs</u></b>	<b><u>Semester</u></b>	<b><u>Grade</u></b>
PHYS 231	University Physics I	4	_____	_____
PHYS 232	University Physics II	4	_____	_____
PHYS 305	Introduction to Modern Physics	3	_____	_____
PHYS 321	Mechanics	3	_____	_____
PHYS 331	Electricity & Magnetism	3	_____	_____
PHYS 440	Wave Optics	4	_____	_____
EDSC 488	Science Lab Practicum in Schools <sup>1</sup>	0	_____	_____
<b>TOTAL HOURS</b>		<b>21</b>		

### **Completion Requirements**

21 total hours

A minimum of 25% of hours must be completed through Liberty University

2.0 GPA

No grade of “D” may be applied to the certificate

Submission of Certificate Completion Application at beginning of final semester

### **Offered in Online Format**

### **Notes**

\*Relevant 300-400 level PHYS courses require successful completion of MATH 430.

<sup>1</sup>EDSC 488 is a required practicum course that requires a background check; candidates should not plan to take this course in summer sessions.