

Department of Biological Sciences

Courses for Middle School Science Endorsement

I. General Information

This licensure program is designed for preservice and inservice teachers with preparation in an area of middle school or secondary education. This program closely parallels a similar program for elementary education preservice and inservice teachers. All candidates must complete 45 credit hours in courses numbered 300 or above.

II. Life Sciences Required (12 hours)

GB 140-141	Principles of Biology and Lab	4 hours
BO 212-213	Biology of Plants and Lab	4 hours
ZO 214-215	Biology of Animals and Lab	4 hours

III. Physical Sciences Required (15 hours)

CH 123-124	Chemistry I and Lab	5 hours
PH 140-141	College Physics I and Lab	5 hours
AND		
CH 126-127	Chemistry II and Lab	5 hours
OR		
PH 143-144	College Physics II and Lab	5 hours

IV. Earth Science Required (8 hours)

ES 110-111	Introduction to Earth Sciences	5 hours
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One of the following:

ES 319	Meteorology	3 hours
GO 325	Earth History	3 hours
GO 326	Plate Tectonics	3 hours
ES 518	Space Science	3 hours
PH 110-111	Introduction to Space Science	5 hours

(OVER)

V. All candidates will complete the following:

PS 516 Teaching Physical Science in Middle/High School 3 hours

OR

GB 584 Teaching Biology in the Secondary & Middle School 3 hours

All preservice candidates will demonstrate instructional technology competence and arrange to do part of their student teaching at the middle school level.

Biology web site: <http://biology.emporia.edu>

(Updated October 31, 2006)