## MATHEMATICS POSTBACCALAUREATE CERTIFICATE

For post-baccalaureate information please see the "Certification" section of the Graduate Course Catalog.

## Advanced Professional Studies - Post-Bacc Cert

Code Title Hours
*Clearances are valid for one year from the date that appears in the header of this degree audit in the field 'Clearance Date.' Clearances cannot expire in the middle of a semester.
COURSE REQUIREMENTS FOR APS
FOUNDATIONS COURSES - Choose 1 of the following options 1-2:
Option 1. Foundations Graduate Level
EDFN 590 Social Foundation of Educ
EDFN 545 Advanced Educational Psychology
Option 2. Foundations Undergraduate Level
EDFN 211 Foundations Modern Education
EDFN 241 Psychological Foundations of Teaching

## ACT 126 - Educator Ethics Training

You must submit your Educator Ethics Training (If applying to APS
AFTER Jan 15, 2020)

### 3.0 Minimum Cert GPA

undefined - See separate block
If you are given the 2.8 GPA Exception for graduation and you graduate with a GPA lower than 3.0 , you must have higher certification test scores in order to meet PA state certification requirements.

## No dispositions-related holds

If the requirement above is checked as complete, then there are currently no dispositions-related holds on your APS Status. Registration for APS courses is permitted when all APS requirements have been met. If it is incomplete, you have a hold and APS registration will not be allowed.

## APS registration status

You ARE NOT eligible to register for courses requiring APS status.

## Application for APS status

When all requirements are met, you must submit application for admission to APS status. Click here for the application.

## Total Hours

Major in Mathematics, Post-Baccalaureate Cert
Code $\quad$ Title
Credits Required for Major
true
Minimum GPA 2.0 for Major
true
REQUIRED MATHEMATICS COURSES

| A grade of C - or higher is required in all required math courses, except MATH 464. |  |  |
| :---: | :---: | :---: |
| MATH 161 | Calculus 1 | 4 |
| MATH 211 | Calculus 2 | 4 |
| History of Mathematics - Choose 1 of the following: |  | 3 |
| MATH 301 | History of Mathematics |  |
| MATH 603 | History of Mathematics |  |
| Intro Math Proof | Choose 1 of the following: | 3 |
| MATH 310 | Intro to Mathematical Proof |  |
| MATH 520 | Logic and Foundations of Math |  |
| MATH 311 | Calculus 3 | 4 |
| Linear Algebra I-Choose 1 of the following: |  | 4 |
| MATH 322 | Linear Algebra 1 |  |
| MATH 502 | Linear Algebra |  |
| Abstract Algebra I-Choose 1 of the following: |  | 3 |
| MATH 345 | Abstract Algebra 1 |  |
| MATH 504 | Modern Algebra for Teachers |  |
| Survey of Geometry or Transfrmtnl Geometry - Choose 1 of the following: |  | 3-4 |
| MATH 353 | Survey of Geometry |  |
| MATH 355 | Transformational Geometry |  |
| MATH 505 | Classical \& Modern Geometry |  |
| MATH 650 | Topics in Geometry |  |
| Real Analysis I-Choose 1 of the following: |  | 3 |
| MATH 464 | Real Analysis 1 |  |
| MATH 506 | Modern Analysis for Teachers |  |
| REQUIRED OPTION COURSES |  |  |
| STATISTICS REQUIREMENT - Choose 1 of the following options 1-2: |  | -6 |
| Option 1. Intro to Probability and Statistics - Choose 1 of the following: |  |  |
| MATH 333 | Probablity and Statistics |  |
| MATH 503 | Probability and Stats for Tchr |  |
| Option 2. M following: | Statistics I and Statistics II - Choose 2 of the |  |
| MATH 335 | Mathematical Statistics 1 |  |
| MATH 435 | Mathematical Statistics 2 |  |
| MATH 535 | Statistical Methods 1 |  |
| MATHEMATICS ELECTIVES - Choose 6 hours from: |  | 6 |
| MATH 333 | Probablity and Statistics |  |
| MATH 335 | Mathematical Statistics 1 |  |
| MATH 353 | Survey of Geometry |  |
| MATH 355 | Transformational Geometry |  |
| MATH 365 | Ordinary Differential Equation |  |
| MATH 370 | Operations Research |  |
| MATH 375 | Numerical Analysis |  |
| MATH 393 | Number Theory |  |
| MATH 395 | Introduction Combinatorics |  |
| MATH 408 | Topics in Mathematics |  |
| MATH 418 | Topics in Math Education |  |
| MATH 422 | Linear Algebra 2 |  |
| MATH 435 | Mathematical Statistics 2 |  |
| MATH 438 | Topics in Statistics |  |
| MATH 445 | Abstract Algebra 2 |  |


| MATH 457 | Elementary Differentl Geometry |
| :--- | :--- |
| MATH 465 | Real Analysis 2 |
| MATH 467 | Partial Differential Equations |
| MATH 471 | Mathematical Modeling |
| MATH 472 | Financial Mathematics II |
| MATH 478 | Topics in Applied Mathematics |
| MATH 483 | Point-Set Topology |
| MATH 498 | Independent Study |
| MATH 503 | Probability and Stats for Tchr |
| MATH 535 | Statistical Methods 1 |
| MATH 536 | Statistical Methods 2 |
| MATH 566 | Complex Variables |
| MATH 577 | Problems in Applied Math |
| MATH 592 | Graph Theory |
| Any 6-level MATH course(s) |  |
| Total Hours |  |

## Req Related for Mathematics, Post-Bacc Cert

| Code | Title | Hours |
| :--- | :--- | ---: |
| REQUIRED RELATED COURSES |  |  |
| Intro. to Computing I | 4 |  |
| CSCI 161 | Introduction to Programming 1 |  |
| CSCI 140 | Discrete Structures | 4 |
| Total Hours |  | $\mathbf{8}$ |

## Professional Education - Certification

Code Title Hours

## FOUNDATIONS BLOC

We recommend 590 and 545 for Post-Bacc students. These courses each require 35 hours field placement at an urban school. Offered in the evenings Fall and Spring. Also offered in Summer Session. If enrolling in EDFN 21 1/241, please register for both courses in the same block.
Foundations of Modern Education - Choose 1 of the following: 3

| EDFN 590 | Social Foundation of Educ |
| :--- | :--- |
| EDFN 211 | Foundations Modern Education |

Psychological Foundations of Teaching - Choose 1 of the following: 3
EDFN 545 Advanced Educational Psychology EDFN 241 Psychological Foundations of Teaching
APS - PROFESSIONAL BLOC
Students must meet APS eligibility requirements prior to registering. Course Appropriate PRAXIS II Exam should be taken after Professional Bloc, but prior to Student Teaching.
Issues in Secondary Education - Choose 1 of the following: 3
EDSE 521 Issues in Second Education
EDSE 321 Issues in Secondary Education
Content Area Literacy for Diverse Classrooms - Choose 1 of the
following:
EDSE 340 Content Area Literacy for Diverse Classrooms
EDSE $540 \quad$ Cntnt Area Litrcy Divers Class
Secondary Students w/Disabilities in Inclusive Settings - Choose 1 of 3 the following:

SPED 346 Secondary Students w/Disabilities in Inclusive Settings

SPED 546 Sec Stdnts w Disab Inclu Sttgs
MATH 405 Teaching Math in Secondary Schools 2

## STUDENT TEACHING SEMINAR

File your Intent to Student Teach Card one year prior to the beginning of the semester in which you wish to Student Teach. Click here to access the Student Teaching Website
EDSE 471 Student Teaching Seminar 3

STUDENT TEACHING SEMESTER
Students must meet APS eligibility requirements prior to registering. Submit your Teacher Certification Packet 90 days prior to completion of your certification program. Click here to access the packet on the Certification Website.
Student Teaching - Choose 9 hours from: 9
EDMA 461 Student Teaching in Math
EDMA 462 Student Teaching in Math
Total Hours
30

