

# **KY Valid Course List**

## HOW TO USE THIS DOCUMENT

This document contains a listing of course descriptions and parameters along with certifications that fit the parameters for a given course. The grade range and population information listed for each course are not absolute. Please choose the course that most closely represents the students in a given course.

### EXAMPLE

John Q Middle School had 5<sup>th</sup>, 6<sup>th</sup>, and 7<sup>th</sup> grade students taking a Creative Art course. This course would be linked to course number **500711: Creative Art – Comprehensive**, which shows with a recommended grade range of 6<sup>th</sup> – 12<sup>th</sup>.

The courses listed in this document are not meant to replace the course titles and course numbers already in use at the school level. Schools will link their courses on the Infinite Campus “Course Master” tab OR in the “Course” tab to courses listed in this document.

Schools may have created courses that are very unique in order to meet students’ needs. If a course does not meet the definition or content of one contained in this document, please use course number **909999: School Defined Course**, and code the correct content through the LEAD report.

## CERTIFICATIONS

It is important to note that the certificates listed are the ones that fit **ALL** of the parameters for a specific course – there may be other certificates that can teach it with slightly more restrictive parameters.

It is very important to note that not all of the certificates listed under a specific course will meet the Highly Qualified Teacher standards as defined by The No Child Left Behind Act of 2001. Please refer to the Highly Qualified guidance documents located on the Education Professional Standards Board (EPSB) website at <http://www.epsb.ky.gov/nclb.asp>.

In addition to Highly Qualified considerations, please take note of the following information from **The Kentucky Core Academic Standards** with regard to middle school courses that are offered for high school credit.

### High School Credit Earned in Middle School

It is expected that most students will earn these credits during their high school years. However, local school districts may offer these courses to middle level students if the following criteria are met:

- the content and the rigor of the course is the same as established in the *Kentucky Core Academic Standards*
- the students demonstrate mastery of the middle level content as specified in the *Kentucky Core Academic Standards*
- the district has criteria in place to make reasonable determination that the middle level student is capable of success in the high school course
- **the middle level course is taught by teachers with either secondary or middle level certification with appropriate content specialization**

Although middle level courses list the Provisional and Standard Elementary Certificates, Grades 1-8 as allowable under the parameters of these courses, they will not meet the above requirements for courses that are offered for high school credit.

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Please contact Robin Chandler, policy advisor for the Office of Next Generation Learners in KDE, at 502-564-2106 with any questions on content and curricula.

Please contact EPSB’s Division of Certification at 502-564-4606 with any questions on credentials or permissions.

# Table of Contents

Table of Contents .....	3
Mathematics (270000) .....	4
Mathematics - Middle (270200).....	5
Mathematics - Algebra (270300) .....	15
Mathematics - Geometry (270400).....	27
Mathematics - Calculus (270500).....	33
Mathematics - Other Mathematical Topics (270600).....	38
Mathematics - Integrated Mathematics (270700).....	46

# **Mathematics**

## **(270000)**

# Mathematics - Middle (270200)

## 270201 - Sixth Grade Mathematics

**Grade Level:** 6 - 6

**Credits:**

**Description:** This course is designed so the student accomplishes all the 6th Grade Mathematics Program of Studies.

**Content:** Middle School Mathematics (general)

**Population:** General

AJG7	Adjunct Instructor for Middle Grades Math
AM71	Approval For Teaching Mathematics In The Middle Grades 5-6
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics
SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270202 - Seventh Grade Mathematics

**Grade Level:** 7 - 7

**Credits:**

**Description:** This course is designed so the student accomplishes all the 7th Grade Mathematics Program of Studies.

**Content:** Middle School Mathematics (general)

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJG7	Adjunct Instructor for Middle Grades Math
B71	Teaching Major: Mathematics

B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics
SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270203 - Eighth Grade Mathematics

**Grade Level:** 8 - 8

**Credits:**

**Description:** This course is designed so the student accomplishes all the 8th Grade Mathematics Program of Studies.

**Content:** Middle School Mathematics (general)

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJG7	Adjunct Instructor for Middle Grades Math
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
COMA	Conditional One-Year Certificate For Math, Grades 8-12
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8

M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics
QMA	Teaching Field: Mathematics
SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270204 - Accelerated Sixth Grade Mathematics

**Grade Level:** 6 - 6

**Credits:**

**Description:** This course is designed so the student accomplishes all the 6th Grade Mathematics Program of Studies, while providing opportunities for extensions appropriate for accelerated students.

**Content:** Middle School Mathematics (general)

**Population:** General

AJG7	Adjunct Instructor for Middle Grades Math
AM71	Approval For Teaching Mathematics In The Middle Grades 5-6
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics
SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270205 - Accelerated Seventh Grade Mathematics

**Grade Level:** 7 - 7

**Credits:**

**Description:** This course is designed so the student accomplishes all the 7th Grade Mathematics Program of Studies, while providing opportunities for extensions appropriate for accelerated students.

**Content:** Middle School Mathematics (general)

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJG7	Adjunct Instructor for Middle Grades Math
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics
SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270206 - Accelerated Eighth Grade Mathematics

**Grade Level:** 8 - 8

**Credits:**

**Description:** This course is designed so the student accomplishes all the 8th Grade Mathematics Program of Studies, while providing opportunities for extensions appropriate for accelerated students.

**Content:** Middle School Mathematics (general)

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJG7	Adjunct Instructor for Middle Grades Math
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12

CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
COMA	Conditional One-Year Certificate For Math, Grades 8-12
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics
QMA	Teaching Field: Mathematics
SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270222 - Pre-Algebra (Grades 6-8 - non-HS credit)

**Grade Level:** 6 - 8

**Credits:**

**Description:** This course prepares middle school students to be successful in an Algebra 1 course based on the relevant statements from the High School Program of Studies.

**Content:** Pre-Algebra

**Population:** General

AJG7	Adjunct Instructor for Middle Grades Math
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics

SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270232 - Algebra 1 (Grades 6-8 - HS credit)

**Grade Level:** 6 - 8

**Credits:** 1

**Description:** This course addresses all the relevant statements from the High School Program of Studies for a high school Algebra I course and builds on those further in order to qualify for high school graduation credit.

**Content:** Algebra I

**Population:** General

AJG7	Adjunct Instructor for Middle Grades Math
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics
SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270233 - Geometry (Grades 6-8 - HS credit)

**Grade Level:** 6 - 8

**Credits:** 1

**Description:** This course addresses all the relevant statements from the High School Program of Studies for a high school Geometry course and builds on those further in order to qualify for high school graduation credit.

**Content:** Geometry

**Population:** General

AJG7	Adjunct Instructor for Middle Grades Math
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics
SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270235 - Algebra 2 (Grades 6-8 - HS Credit)

**Grade Level:** 6 - 8

**Credits:** 1

**Description:** This course is designed so the students develop the relevant skills and concepts from the High School Mathematics Program of Studies beyond Algebra 1 and then builds on those skills and concepts in a rigorous manner. For the class of 2012 and the classes that follow, Algebra 2 is a graduation requirement.

**Content:** Algebra II

**Population:** General

AJG7	Adjunct Instructor for Middle Grades Math
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics
SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270242 - Algebra 1 (Grades 6-8 - non-HS credit)

**Grade Level:** 6 - 8

**Credits:**

**Description:** This course addresses all the relevant statements from the High School Program of Studies for a high school Algebra I course but would not be intended for high school graduation credit.

**Content:** Algebra I

**Population:** General

AJG7	Adjunct Instructor for Middle Grades Math
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics
SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270243 - Geometry (Grades 6-8 - non-HS credit)

**Grade Level:** 6 - 8

**Credits:**

**Description:** This course addresses all the relevant statements from the High School Program of Studies for a high school Geometry course but would not be intended for high school graduation credit.

**Content:** Geometry

**Population:** General

AJG7	Adjunct Instructor for Middle Grades Math
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8

PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics
SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270245 - Algebra 2 (Grades 6-8 - non-HS Credit)

**Grade Level:** 6 - 8

**Credits:** 0

**Description:** This course is designed so the students develop the relevant skills and concepts from the High School Mathematics Program of Studies beyond Algebra 1 and then builds on those skills and concepts in a rigorous manner. For the class of 2012 and the classes that follow, Algebra 2 is a graduation requirement.

**Content:** Algebra II

**Population:** General

AJG7	Adjunct Instructor for Middle Grades Math
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics
SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270290 - Mathematics Intervention (Grades 6-8)

**Grade Level:** 6 - 8

**Credits:**

**Description:** This course is designed for students who need additional assistance beyond the grade level math course. This course uses intervention strategies to build and support the student's mathematical understanding. This course should be taken in conjunction with the grade level math course.

**Content:** General Mathematics

**Population:** General

AJG7	Adjunct Instructor for Middle Grades Math
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
ELE	Endorsement For Elementary School Classroom Teaching, Grades 1-8
G71	Middle School Teaching Field: Mathematics
J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
PEA	Provisional Elementary Certificate, Grades 1-8
PEB	Provisional Elementary Certificate, Grades 1-8
PEBF	Provisional Elementary Certificate, Grades 1-8
QG71	Teaching Field: Middle Grades Mathematics
SEA	Standard Elementary Certificate, Grades 1-8
SEB	Standard Elementary Certificate, Grades 1-8
SEM	Standard Elementary Certificate, Grades 1-8
SEMF	Standard Elementary Certificate, Grades 1-8
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TES	Endorsement For Elementary And Secondary Classroom Teaching
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

# Mathematics - Algebra (270300)

## 270301 - Pre-Algebra

**Grade Level:** 9 - 10

**Credits:** 1E

**Description:** This course assists students who lack a sufficient background to be successful in a high school graduation credit Algebra 1 course to develop the skills and concepts necessary to be successful for high school credit Algebra 1. This course could serve as a mathematics elective for high school graduation.

**Content:** Pre-Algebra

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270302 - Algebra 1 (Part 1)/Algebra 1 (Part A)/ Algebra 0.5

**Grade Level:** 9 - 10

**Credits:** 1/1E

**Description:** This course is the first course of a set. This set of algebra 1 courses is designed for students who might need two years (or two semesters in block schedules) to attain all the concepts addressed in the relevant statements from the High School Program of Studies for a high school Algebra I course. Students must pass both courses (270302 and 270303) to earn the Algebra 1 credit for high school graduation.

**Content:** Algebra I

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJG7	Adjunct Instructor for Middle Grades Math
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12

CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
COMA	Conditional One-Year Certificate For Math, Grades 8-12
G71	Middle School Teaching Field: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
QG71	Teaching Field: Middle Grades Mathematics
QMA	Teaching Field: Mathematics
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270303 - Algebra 1 (Part 2)/Algebra 1 (Part B)

**Grade Level:** 9 - 10

**Credits:** 1/1E

**Description:** This course is the second course of a set. This set of algebra 1 courses is designed for students who might need two years (or two semesters in block schedules) to attain all the concepts addressed in the relevant statements from the High School Program of Studies for a high school Algebra I course. Students must pass both courses (270302 and 270303) to earn the Algebra 1 credit for high school graduation.

**Content:** Algebra I

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJG7	Adjunct Instructor for Middle Grades Math
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
COMA	Conditional One-Year Certificate For Math, Grades 8-12
G71	Middle School Teaching Field: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
QG71	Teaching Field: Middle Grades Mathematics
QMA	Teaching Field: Mathematics

T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270304 - Algebra 1

**Grade Level:** 9 - 11

**Credits:** 1

**Description:** This course is designed so the students attain all the concepts contained in the relevant statements in the High School Program of Studies in order to earn the high school graduation credit for Algebra 1.

NOTE: This course may be titled Applied Algebra 1, Technical Algebra 1 or Interdisciplinary Algebra 1. The content of the course is Algebra I.

**Content:** Algebra I

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJG7	Adjunct Instructor for Middle Grades Math
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
COMA	Conditional One-Year Certificate For Math, Grades 8-12
G71	Middle School Teaching Field: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
QG71	Teaching Field: Middle Grades Mathematics
QMA	Teaching Field: Mathematics
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270305 - Honors Algebra 1

**Grade Level:** 9 - 9

**Credits:** 1

**Description:** This course is designed so the students attain all the concepts contained in the relevant statements in the High School Mathematics Program of Studies in order to earn the high school graduation credit for Algebra 1. This Algebra 1 course provides extensions and enrichments for students who qualify.

**Content:** Algebra I

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJG7	Adjunct Instructor for Middle Grades Math
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
COMA	Conditional One-Year Certificate For Math, Grades 8-12
G71	Middle School Teaching Field: Mathematics
J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
QG71	Teaching Field: Middle Grades Mathematics
QMA	Teaching Field: Mathematics
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270306 - Accelerated Algebra 1

**Grade Level:** 9 - 9

**Credits:** 1

**Description:** This course is designed so the students attain all the concepts contained in the relevant statements in the High School Mathematics Program of Studies in order to earn the high school graduation credit for Algebra 1. This Algebra I course is taught at an accelerated pace for students who qualify.

**Content:** Algebra I

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJG7	Adjunct Instructor for Middle Grades Math
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
COMA	Conditional One-Year Certificate For Math, Grades 8-12
G71	Middle School Teaching Field: Mathematics
J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
QG71	Teaching Field: Middle Grades Mathematics
QMA	Teaching Field: Mathematics
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270307 - MST Algebra 1

**Grade Level:** 9 - 9

**Credits:** 1

**Description:** This course is designed so students could attain all the concepts contained in the relevant statements in the High School Mathematics Program of Studies for a high school Algebra I course and to build on those in order to earn the high school graduation credit for Algebra I, with extensions and applications provided for students who are enrolled in mathematics/science/technology magnet programs.

**Content:** Algebra I

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJG7	Adjunct Instructor for Middle Grades Math
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
COMA	Conditional One-Year Certificate For Math, Grades 8-12
G71	Middle School Teaching Field: Mathematics

J71	Junior High Major: Mathematics
K71	Junior High Semi-Major: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
MS71	Endorsement For Teaching Middle School Math, Grades 5-9
QG71	Teaching Field: Middle Grades Mathematics
QMA	Teaching Field: Mathematics
T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270308 - Algebra 1 Intervention

**Grade Level:** 9 - 11

**Credits:** 0.5E or 1E

**Description:** This course is designed for students who need additional time with Algebra 1 topics and runs concurrently with Algebra 1. This course uses hands-on activities and experiments with graphing calculators to experiment with graphing calculators to support the study of the concepts addressed in the relevant statements in the High School Mathematics Program of Studies for a high school Algebra 1 course. This course does not meet the Algebra 1 graduation requirement but could serve as an elective for high school graduation.

**Content:** Algebra I

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJG7	Adjunct Instructor for Middle Grades Math
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
CO71	Conditional One-Year Certificate For Middle School Math, Grades 5-9
COMA	Conditional One-Year Certificate For Math, Grades 8-12
G71	Middle School Teaching Field: Mathematics
K71L	Kentucky Middle School Math Limited, Grades 5-9
KG71	Professional Certificate For Middle Grades Mathematics, Grades 5-9
KG7I	Provisional Internship Certificate For Middle Grades Mathematics, Grades 5-9
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8
M71R	Probationary Certificate For Teaching Middle School Math, Grades 5-9
QG71	Teaching Field: Middle Grades Mathematics
QMA	Teaching Field: Mathematics

T8G7	Temporary Provisional Certificate For Teaching Middle Grades Mathematics, Grades 5-9 (Option 8)
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TE71	Temporary Certificate For Middle School Mathematics, Grades 5-9
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPG7	Temporary Provisional Certificate For Middle Grades Mathematics, Grades 5-9
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics
XM71	Emergency Certificate For Middle School Mathematics

## 270309 - Mathematics Intervention

**Grade Level:** 9 - 12

**Credits:** 0.5E or 1E

**Description:** This course is designed for students who need additional time and help with mathematical strategies. This course uses hands-on activities and experiments with graphing calculators to support the study of the concepts addressed in the relevant statements in the High School Mathematics Program of Studies for a high school. This course can be individualized to enhance a student's college or career readiness. This course could serve as a mathematics elective for high school graduation, but not as one of the 3 required mathematics credits for high school graduation: Algebra 1, Geometry or Algebra 2 (class of 2012 and beyond).

**Content:** General Mathematics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270310 - Algebra 1.5/Introduction to Algebra 2

**Grade Level:** 9 - 11

**Credits:** 1E

**Description:** This course is designed for those students who have completed their Algebra 1 graduation credit, but are not deemed sufficiently prepared to attempt a rigorous, Algebra 2 course. The intent of this course is to go beyond Algebra 1 and prepare students for the Algebra 2 course. This course could serve as a mathematics elective for high school graduation, but not as the required Algebra 2 credit for high school graduation (class of 2012 and beyond).

**Content:** Algebra II

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270311 - Algebra 2

**Grade Level:** 9 - 12

**Credits:** 1

**Description:** This course is designed so the students develop the relevant skills and concepts from the High School Mathematics Program of Studies beyond Algebra 1 and then builds on those skills and concepts in a rigorous manner. For the class of 2012 and the classes that follow, Algebra 2 is a graduation requirement.

NOTE: This course may be titled Applied Algebra 2, Technical Algebra 2 or Interdisciplinary Algebra 2. The content of the course is Algebra II.

**Content:** Algebra II

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270312 - Honors Algebra 2

**Grade Level:** 9 - 12

**Credits:** 1

**Description:** This course is designed so that students develop the relevant skills and concepts from the High

School Mathematics Program of Studies beyond the Algebra 1 course and then builds on those in a rigorous manner. This Algebra 2 course with enrichments is provided for students who intend to take more advance mathematics classes while in high school.

**Content:** Algebra II

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270313 - Accelerated Algebra 2

**Grade Level:** 9 - 12

**Credits:** 1

**Description:** This course is designed so the students develop the relevant skills and concepts from the High School Mathematics Program of Studies beyond the Algebra 1 course and then builds on those in a rigorous manner. This Algebra 2 course is designed to prepare students for more advance mathematics classes. The intention of this course is to be taught at an accelerated pace.

**Content:** Algebra II

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270314 - MST Algebra 2

**Grade Level:** 9 - 11

**Credits:** 1

**Description:** This course is designed so the students could develop the relevant skills and concepts from the High School Mathematics Program of Studies and then build on those in a rigorous, college-preparatory Algebra 2, with opportunities provided for students to progress ahead of the minimal statements from the High School Mathematics Program of Studies, with extensions and applications provided for students who are enrolled in mathematics/science/technology magnet programs.

**Content:** Algebra II

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270318 - Algebra 2 Intervention

**Grade Level:** 9 - 12

**Credits:** 0.5E or 1E

**Description:** This course is designed for students who need additional time with Algebra 2 topics and runs concurrently with Algebra 2. This course uses hands-on activities and experiments with graphing calculators to support the study of the concepts addressed in the relevant statements in the High School Mathematics Program of Studies beyond Algebra 1. This course could serve as a mathematics elective for high school graduation, but not as the required Algebra 2 credit for high school graduation for class of 2012 and beyond.

**Content:** Algebra II

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics

T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270320 - College Algebra

**Grade Level:** 11 - 12

**Credits:** 1E

**Description:** This course is designed to be equivalent to a credit-bearing College Algebra course for students intending to enter into post-secondary education. The content goes beyond a traditional Algebra 2 course.

**Content:** Advanced Topics in Mathematics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270321 - Algebra 3/Preparation for College Algebra

**Grade Level:** 11 - 12

**Credits:** 1E

**Description:** This course is designed for students who are intending to attend college and are in need of additional preparation in order to be successful in credit-bearing College Algebra, or for students who feel in need of additional preparation to take College Algebra. The content goes beyond a traditional Algebra 2 course.

**Content:** Advanced Topics in Mathematics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12

KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

# Mathematics - Geometry (270400)

## 270401 - Geometry

**Grade Level:** 9 - 12

**Credits:** 1

**Description:** This course is designed so the students can develop skills and concepts from the relevant statements in the High School Program of Studies in order to earn the high school graduation credit for Geometry. This course may be titled Applied Geometry, or Interdisciplinary Geometry. The content of the course is Geometry.

**Content:** Geometry

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270402 - Honors Geometry

**Grade Level:** 9 - 11

**Credits:** 1

**Description:** This course is designed so the students can develop skills and concepts from the relevant statements in the High School Program of Studies in order to earn the high school graduation credit for Geometry, with enrichments provided for students who intend to take more advance mathematics classes while in high school.

**Content:** Geometry

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12

CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270403 - Accelerated Geometry

**Grade Level:** 9 - 11

**Credits:** 1

**Description:** This course is designed so the students can develop skills and concepts from the relevant statements in the High School Program of Studies in order to earn the high school graduation credit for Geometry at an accelerated pace.

**Content:** Geometry

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270404 - MST Geometry

**Grade Level:** 9 - 11

**Credits:** 1

**Description:** This course is designed so the students can develop skills and concepts from the relevant statements in the High School Program of Studies in order to earn the high school graduation credit for Geometry, with extensions and applications provided for students who are enrolled in mathematics/science/technology magnet programs.

**Content:** Geometry

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics

C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270406 - Geometry Intervention

**Grade Level:** 9 - 12

**Credits:** 0.5E or 1E

**Description:** This course is designed for students who need additional time with Geometry topics and runs concurrently with Geometry. This course uses hands-on activities and experiments with graphing calculators to support the study of the concepts addressed in the relevant statements in the High School Mathematics Program of Studies beyond the Algebra 1 courses. This course could serve as an elective for high school graduation credit, but not as a mathematics credit for high school graduation.

**Content:** Geometry

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270411 - Geometry through Construction Technology

**Grade Level:** 9 - 12

**Credits:** 1

**Description:** This course is designed as the high school Geometry graduation credit earned by a student who completed two of three constructional technology career/technical education courses -- Site Layout and Foundations, Floor and Wall Framing, or Ceiling and Roof Framing with all the high school Geometry content build into the courses.

**Content:** Construction Technology/Geometry for Geometry Requirement

**Population:** General

766	Carpentry
801	Building Construction
A70	Area Specialization: Mathematics-Physical Science
AJCA	Adjunct Instructor For Carpentry
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
S766	Approval For Teaching Preparation Level Carpentry
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics
X766	Emergency Certificate For Teaching Carpentry
X801	Emergency Certificate For Teaching Building Construction
XWVO	Waiver For Vocational Education, Grades 5-12, 6-Month

## 270412 - Geometry through Computer Aided Drafting

**Grade Level:** 9 - 12

**Credits:** 1

**Description:** This course is designed as the high school Geometry graduation credit earned by a student who completes the two introductory Computer-Assisted Design career/technical education courses.

**Content:** Computer Aided Drafting for Geometry Requirement

**Population:** General

769	Drafting
A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics
XWVO	Waiver For Vocational Education, Grades 5-12, 6-Month

## 270421 - Integrated Technical Geometry 1

**Grade Level:** 9 - 12

**Credits:** 1/1E

**Description:** This course is designed so the students develop the skills and concepts from the relevant statements in the High School Mathematics Program of Studies for a high school Geometry course in order to earn the high school graduation credit for Geometry, with applications from other courses applied as well, and emphasizing hands-on activities which relate to real world applications of Geometry. This course and 270422 would both have to be completed to earn the high school graduation requirement credit for geometry.

**Content:** Geometry

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270422 - Integrated Technical Geometry 2

**Grade Level:** 9 - 12

**Credits:** 1/1E

**Description:** This course is designed so the students develop the skills and concepts from the relevant statements in the High School Mathematics Program of Studies for a high school Geometry course in order to earn the high school graduation credit for Geometry, with applications from other courses applied as well, and emphasizing hands-on activities which relate to real world applications of Geometry. This course and 270421 would both have to be completed to earn the high school graduation requirement credit for geometry.

**Content:** Geometry

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12

KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

# Mathematics - Calculus (270500)

## 270501 - Pre-Calculus

**Grade Level:** 10 - 12

**Credits:** 1E

**Description:** This course is designed for students to attain the concepts necessary to be successful in a Calculus course, an AP Calculus course or a College Calculus course.

**Content:** Pre-Calculus

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270502 - Honors Pre-Calculus

**Grade Level:** 10 - 12

**Credits:** 1E

**Description:** This course is designed for students to attain the concepts necessary to be successful in a Calculus course, an AP Calculus course or a College Calculus course, with the opportunity provided for students to progress ahead of the minimal requirements for such courses.

**Content:** Pre-Calculus

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12

KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270503 - Accelerated Pre-Calculus

**Grade Level:** 10 - 12

**Credits:** 1E

**Description:** This course is designed for students to attain the concepts necessary to be successful in a Calculus course, an AP Calculus course or a College Calculus course, with extensions and acceleration provided for students who qualify.

**Content:** Pre-Calculus

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270504 - MST Pre-Calculus

**Grade Level:** 10 - 12

**Credits:** 1E

**Description:** This course is designed for students to attain the concepts necessary to be successful in a Calculus course, an AP Calculus course or a College Calculus course, with extensions and applications provided for students who are enrolled in mathematics/science/technology magnet programs.

**Content:** Pre-Calculus

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12

COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270505 - IB Pre-Calculus

**Grade Level:** 10 - 12

**Credits:** 1E

**Description:** This course is designed to address all the curriculum for Pre-Calculus as described in the International Baccalaureate guidelines.

**Content:** Pre-Calculus

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270511 - Calculus

**Grade Level:** 11 - 12

**Credits:** 1E

**Description:** This course is designed to address all the concepts normally covered in differential and integral calculus.

**Content:** Calculus

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12

COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270512 - IB Calculus

**Grade Level:** 11 - 12

**Credits:** 1E

**Description:** This course is designed to address all the curriculum for Calculus as described in the International Baccalaureate guidelines.

**Content:** Calculus

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270513 - AP Calculus AB

**Grade Level:** 11 - 12

**Credits:** 1E

**Description:** This course is designed to address all the concepts delineated in the College Board guidelines for the AB Calculus examination.

**Content:** AP Calculus

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12

COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270514 - AP Calculus BC

**Grade Level:** 11 - 12

**Credits:** 1E

**Description:** This course is designed to address all the concepts delineated in the College Board guidelines for the BC Calculus examination.

**Content:** AP Calculus

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

# Mathematics - Other Mathematical Topics (270600)

## 270601 - Data and Measurement

**Grade Level:** 9 - 12

**Credits:** 1E

**Description:** This course is designed as an extension of high school Mathematics courses, and is intended for students who desire to have their mathematics skills strengthened before continuing in their study of mathematics. It includes the Data and Measurement sections of the Program of Studies required for graduation.

**Content:** Extended Topics In Algebra (Data and Measurement)

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270602 - Probability and Statistics

**Grade Level:** 9 - 12

**Credits:** 1E

**Description:** This course is designed to address such concepts as theoretical and experimental probability, binomial distributions, normal distributions, displaying and describing distributions of data, collecting data, measures of central tendency and dispersion, and methods of inferential statistics.

**Content:** Probability/Statistics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12

CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270603 - Accelerated Probability and Statistics

**Grade Level:** 9 - 12

**Credits:** 1E

**Description:** This course is designed to address such concepts as theoretical and experimental probability, binomial distributions, normal distributions, displaying and describing distributions of data, collecting data, measures of central tendency and dispersion, and methods of inferential statistics, with extensions and acceleration provided for students who qualify.

**Content:** Probability/Statistics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270604 - AP Statistics

**Grade Level:** 11 - 12

**Credits:** 1E

**Description:** This course is designed to address the guidelines provided by the College Board for the Advanced Placement Statistics examination.

**Content:** AP Statistics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics

C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270611 - Discrete Mathematics

**Grade Level:** 10 - 12

**Credits:** 1E

**Description:** This course is designed for advanced high school mathematics students who are interested in a future in business or computer applications, addressing such topics as set theory, proofs by mathematical induction, graph theory, permutations and combinations, and other topics as deemed appropriate.

**Content:** Finite/Discrete Mathematics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270612 - Finite Mathematics

**Grade Level:** 10 - 12

**Credits:** 1E

**Description:** This course is designed for students who have completed high school mathematics courses through Algebra 2, and addresses such topics as linear systems using matrices, linear inequalities, data analysis, graph theory, probability, and finance applications.

**Content:** Finite/Discrete Mathematics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270613 - Honors Finite Mathematics

**Grade Level:** 10 - 12

**Credits:** 1E

**Description:** This course is designed in a similar manner to 270612, with the addition of such topics as linear programming and the simplex method, probability distributions, and logic.

**Content:** Finite/Discrete Mathematics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270621 - Advanced Topics in Mathematics

**Grade Level:** 10 - 12

**Credits:** 1E

**Description:** This course is designed for students who have completed Algebra 1, geometry and Algebra 2. This course is designed to allow students to pursue topics in mathematics beyond the scope of the Program of Studies and may cover topics from combined higher level courses or topics which are not found in other higher level courses.

**Content:** Advanced Topics in Mathematics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270631 - Trigonometry

**Grade Level:** 10 - 12

**Credits:** 1E

**Description:** This course is designed for students who have completed Algebra 2 and want to proceed further into aspects of Trigonometry.

**Content:** Trigonometry

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270641 - Mathematics for Business and Industry

**Grade Level:** 9 - 12

**Credits:** 1E

**Description:** This course is designed as an interdisciplinary course that would be offered through the business strand of the career/technical education program. This course employs high school mathematics

content with business emphasis.

**Content:** Math for Business and Industry for the Math Elective Requirement

**Population:** General

A60	Area Specialization: Business Education
A70	Area Specialization: Mathematics-Physical Science
A75	Area Specialization: Distributive Education
AJBU	Adjunct Instructor For Business And Marketing, Grades 5-12
AJMA	Adjunct Instructor For Math, Grades 8-12
B102	Teaching Major: Comprehensive Business
B60	Teaching Major: Business Education
B61	Teaching Major: Accounting
B62	Teaching Major: Secretarial Practice
B63	Teaching Major: Basic Business
B64	Teaching Major: General Business
B65	Teaching Major: Accounting-Secretarial Practice
B66	Teaching Major: Accounting-General Business
B67	Teaching Major: General Business-Secretarial Practice
B69	Teaching Major: Secretarial Studies
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
B75	Teaching Major: Distributive Education
C60	Teaching Minor: Business Education
C61	Teaching Minor: Accounting
C62	Teaching Minor: Secretarial Practice
C64	Teaching Minor: General Business
C65	Teaching Minor: Accounting-Secretarial Practice
C66	Teaching Minor: Accounting-General Business
C67	Teaching Minor: General Business-Secretarial Practice
C71	Teaching Minor: Mathematics
CBU	Professional Certificate For College Faculty, Business And Marketing Education, Grades 5-12
CBUI	Provisional Internship Certificate For College Faculty, Business And Marketing Education, Grades 5-12
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COBU	Conditional One-Year Certificate For Business And Marketing, Grades 5-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KBU	Professional Certificate For Teaching Business And Marketing Education, Grades 5 Through 12
KBUI	Provisional Internship Certificate For Teaching Business And Marketing Education, Grades 5 Through 12
KBUL	Certificate For Teaching Kentucky Business and Marketing Limited, Grades 5-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M102	Endorsement For Teaching Comprehensive Business, Grades 5-8
M71	Endorsement For Teaching Mathematics, Grades 5-8
QBU	Teaching Field: Business and Marketing
QMA	Teaching Field: Mathematics
S103	Endorsement For Teaching Shorthand
S61	Endorsement For Teaching Accounting
S63	Endorsement For Teaching Typewriting
S68	Endorsement For Teaching Advanced Data Processing
S75	Approval For Teaching Distributive Education
T75	Endorsement For Distributive Education
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEBU	Temporary Certificate For Business And Marketing, Grades 5-12
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPBU	Temporary Provisional Certificate For Business And Marketing Education, Grades 5-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WBU	Professional Certificate For Teaching Business And Marketing Education, Grades 5 Through 12

WBUI	Provisional Internship Certificate For Teaching Business And Marketing Education, Grades 5 Through 12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X60	Emergency Certificate For Teaching Business Education
X71	Emergency Certificate For Teaching Mathematics

## 270643 - Technical Mathematics

**Grade Level:** 10 - 12

**Credits:** 1

**Description:** Some mathematical concepts from algebra, geometry, and trigonometry and applications relevant to these topics are studied. Topics to be covered include unit conversions, variation, measurement of geometric figures, vectors, and solving right and oblique triangles using trigonometry. Emphasis is on applications in the various technologies.

**Content:** General Mathematics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270651 - Math - Independent Study

**Grade Level:** 9 - 12

**Credits:** 0.5E or 1E

**Description:** This course is designed to provide an opportunity for the student to make an in-depth study on a topic related to mathematics. The student has the responsibility and freedom to research, analyze, evaluate, and present conclusions in written and/or oral form. Students would apply and be accepted for independent study in a manner determined by the local district.

**Content:** General Mathematics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12

COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270661 - Mathematics Concepts

**Grade Level:** 9 - 12

**Credits:** 0.5E or 1E

**Description:** This course is designed to be taken after completion of Algebra 1, Geometry and Algebra 2. Topics include probability and statistics, extension of algebra and geometry concepts, and discrete mathematics. This course could serve as a mathematics elective for high school graduation, but not as one of the three required credits for high school graduation: Algebra 1, Geometry or Algebra 2 (class of 2012 and beyond).

**Content:** Advanced Topics in Mathematics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270690 - Multi-Subject/Multi-Grade Mathematics

**Grade Level:** 6 - 12

**Credits:**

**Description:** This course is to be used for resource special education and alternative setting classrooms where students are receiving instruction in multiple content areas within the Math core. The individualized content for each specific course taught under this umbrella course must meet the standards listed in this document. A highly qualified teacher is required. This course number should not be utilized when instruction is being provided related to one specific course.

**Content:** Mathematics

**Population:** Varies

Certification requirements are dependent upon the population being served.

# Mathematics - Integrated Mathematics (270700)

## 270701 - Integrated/Applied Mathematics 1

**Grade Level:** 9 - 10

**Credits:** 1

**Description:** This course is the first year of Integrated Mathematics. This sequence of integrated curricula should to include the Program of Studies Mathematics content for graduation within the integrated courses taken by each student. Curricula used may be developed through the support of the National Science Foundation.

**Content:** Integrated Mathematics 1

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270702 - Integrated/Applied Mathematics 2

**Grade Level:** 10 - 11

**Credits:** 1

**Description:** This course is the second year of Integrated Mathematics. This sequence of integrated curricula should to include the Program of Studies Mathematics content for graduation within the integrated courses taken by each student. Curricula used may be developed through the support of the National Science Foundation.

**Content:** Integrated Mathematics 2

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics

CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270703 - Integrated/Applied Mathematics 3

**Grade Level:** 10 - 12

**Credits:** 1

**Description:** This course is the third year of Integrated Mathematics. This sequence of integrated curricula should to include the Program of Studies Mathematics content for graduation within the integrated courses taken by each student. Curricula used may be developed through the support of the National Science Foundation.

**Content:** Integrated Mathematics 3

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270704 - Integrated/Applied Mathematics 4

**Grade Level:** 11 - 12

**Credits:** 1E

**Description:** This course is the fourth year of Integrated Mathematics. This sequence of integrated curricula should to include the Program of Studies Mathematics content for graduation within the integrated courses taken by each student. Curricula used may be developed through the support of the National Science Foundation.

**Content:** Integrated Mathematics 4

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics

## 270718 - College & Career Readiness Mathematics

**Grade Level:** 11 - 12

**Credits:** 0.5E or 1E

**Description:** This course was formerly High School Mathematics 4. This course is for students who need additional time and support to complete the high school mathematics Program of Studies for graduation requirements or who may not have attained the benchmark ACT score in mathematics. It addresses statements from the High School Mathematics Program of Studies, with a strong emphasis on real world connections and/or connections with other disciplines of study. This course could serve as a mathematics elective for high school graduation, but not as one of the 3 required math course for high school graduation: Algebra 1, Geometry or Algebra 2 (class of 2012 and beyond).

**Content:** General Mathematics

**Population:** General

A70	Area Specialization: Mathematics-Physical Science
AJMA	Adjunct Instructor For Math, Grades 8-12
B71	Teaching Major: Mathematics
B74	Teaching Major: Computer Science And Mathematics
C71	Teaching Minor: Mathematics
CFMA	Provisional One-Year College Faculty Certificate for Teaching Math, Grades 8-12
CMA	Professional Certificate For College Faculty, Mathematics, Grades 8-12
CMAI	Provisional Internship Certificate For College Faculty, Mathematics, Grades 8-12
COMA	Conditional One-Year Certificate For Math, Grades 8-12
KMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
KMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
KMAL	Certificate For Teaching Kentucky Math Limited, Grades 8-12
M71	Endorsement For Teaching Mathematics, Grades 5-8
QMA	Teaching Field: Mathematics
T8MA	Temporary Provisional Certificate For Teaching Mathematics, Grades 8-12 (Option 8)
TEMA	Temporary Certificate For Mathematics, Grades 8-12
TPMA	Temporary Provisional Certificate For Math, Grades 8-12
WMA	Professional Certificate For Teaching Mathematics, Grades 8 Through 12
WMAI	Provisional Internship Certificate For Teaching Mathematics, Grades 8 Through 12
X71	Emergency Certificate For Teaching Mathematics