

Middle School Mathematics Certificate Program

Southern Nevada Regional Professional Development Program



Updates and changes to this catalog are frequent and can be found on the SNRPDP website:

www.rpd.net

Catalog Version August 1, 2016



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Important Notes

- **1. Register and reserve your spot for these classes using the link below.**

<https://goo.gl/xlqvva>
- **2. The link will also direct you and assist you in getting an NSHE # from UNLV and registering as a UNLV Graduate non-degree seeking student online which requires a fee of \$30 to UNLV. This process takes some time so please do this step ASAP. Please follow the directions in the links so you do the process correctly. (This makes you eligible for the reduced tuition.)**
- **3. Once UNLV Course numbers are available, you must register and pay online for all CREDIT classes through UNLV. (\$45 per credit) You must have an NSHE # to register. www.unlv.edu**
- **4. Please bring a check or money order for the RPD fee to the first class session.(\$30 per credit)**
- **Updates and changes to this catalog are frequent and can be found on the SNRPDP website (www.rpdp.net).**



Middle School Mathematics Certificate Program

Program Outline:

This sixteen credit program is comprised of five content courses and one application course. It addresses major topics in the middle school curriculum and builds teacher content knowledge while incorporating pedagogical material. Each course includes modeling *The Components of an Effective Lesson, Teacher Expectancies*, linkage to high school and middle school math courses, connections to other disciplines, hands-on activities, interactive learning, and participation in a balanced delivery of instruction. This program is suited for both elementary and middle school teachers with a **general education license**.

Course Descriptions:

RPDPCP: Operations & Number Sets—2 Credits (UNLV SCI 620a) – 30 hrs/7 sessions +18 HW hrs =16 CUs

This two credit course will address operations with the following number sets: whole numbers, fractions, decimals, percent, integers, and exponentials. Great emphasis will be placed on answering the “why” behind the basic operations.

RPDPCP: Introduction to Probability/Statistics & Geometry Concepts—3 Credits (UNLV SCI 620b) - 45 hrs/9 sessions + 27 HW hrs = 24 CUs

This three credit course is designed to make teachers more comfortable in their knowledge, understanding and application of middle school mathematics. Topics covered include: data and data displays, measures of central tendency and dispersion, normal distributions, probability rules, tree and Venn diagrams, counting methods including permutations and combinations basic geometric concepts and vocabulary, polygons and triangle congruence, and perimeter and area.

RPDPCP: Algebra for the Classroom Teacher—3 Credits (UNLV SCI 620c) - 45 hrs/9 sessions + 27 HW hrs = 24 CUs

This three credit course has been updated to NVACS and will emphasize linking the concepts and skills taught in a first year Algebra class to previously learned material and outside experiences. The main topics in this course include: solving linear equations & inequalities, word problems, relations & functions, arithmetic & geometric sequences, graphing linear equations & inequalities, solving systems of linear & quadratic equations, solving and graphing exponential functions, exploring univariate and bivariate data (categorical and quantitative), polynomials, solving quadratic equations, and graphing quadratic functions.

RPDPCP: Euclidean and Non Euclidean Geometry for Classroom Teachers—3 Credits (UNLV SCI 620d)) - 45 hrs/9 sessions + 27 HW hrs = 24 CUs

This three credit course has been updated to NVACS and will follow the curriculum taught in a high school Geometry class with an emphasis on transformations, similarity and congruence. Topics covered include the study of angles, polygons, circles, areas and volumes, congruence, similarity, constructions, transformations, trigonometric ratios and properties of right triangles.

RPDPCP: Problem Solving in Action, 6–8—3 Credits (UNLV SCI 620e) - 45 hrs/9 sessions + 27 HW hrs = 24 CUs

This three credit course has 9 mandatory class meetings with the instructor as well as outside assignments. The required assignments involve participants in solving a variety of problems that would be appropriate for the middle level student. The problems require use of 10 problem solving strategies including: going back to the definition, looking for a pattern, drawing a picture, examining a simpler problem, examining a related problem, guessing and checking, making a chart, identifying a sub-goal, writing an equation, and working backwards.

RPDPCP: Practicum—Instructional Strategies—2 Credits (UNLV SCI 620f) – 30 hrs/7 sessions +18 HW hrs =16 CUs

This two credit class will require the participants to reflect and write a paper on how the *Components of an Effective Lesson, Teacher Expectancies*, and the content and pedagogy taught in the program have been implemented in their classrooms.



Middle School Mathematics Certificate Program (cont'd)

Application to Degree Programs:

The sixteen credits in this program can apply towards a Master's degree through UNLV. For more information on Master's programs at UNLV, go to http://graduatecollege.unlv.edu/degree_programs/ci.htm, or call (702) 895-1986.

Certificate Completion:

To earn the RPDP Middle School Math Certificate, one must satisfactorily complete the sixteen credits listed with a grade of at least 'B' in each of the six courses and pass the PRAXIS in Middle School Mathematics.

Course Cost: The cost of all Middle School Mathematics Certificate courses through SNRPDP is \$30/credit plus UNLV fees of \$45/credit. NOTE: A check or money order for the RPDP fee will be collected during the first class session of each course.

Course Requirements:

Grading will be based upon:

- Full attendance at all sessions.
- Full participation in all aspects of the course.
- Maintenance of a mathematics notebook throughout the course.
- Satisfactory completion of all assigned work.
- Comprehensive examination over course material.

Licensing & Salary Provisions:

These classes CANNOT be used for initial licensure or to remove special provisions on a license.

These classes DO provide credits and/or CUs for salary advancement and license renewal in Clark, Lincoln, Esmerelda and Nye Counties.

Registration Procedures All UNLV courses:

- Go to MY UNLV to register:

https://my.unlv.nevada.edu/psp/lvporprd/EMPLOYEE/EMPL/h/?tab=PAPP_GUEST

Polycom (Distance Classes): All classes are available via Polycom (for outlying areas). Contact Glenn Krieger (702) 799-3835 x209 (gjkrieger@interact.ccsd.net) at least 3 weeks in advance of the class to arrange for Polycom connection. Also email Carol Long (CLong@interact.ccsd.net) at least 3 weeks in advance to have class materials sent to you.

For more information on RPDP Middle School Math Certificate courses, contact Carol Long via InterAct (CLong@interact.ccsd.net), (702) 799-3828 x253, or contact the course instructor.

2016-2017 Course Schedule (subject to change):

Fall Semester 2016

RPDPCP: *Operations and Number Sets* – SCI 620a

UNLV Class Number: **TBA**

Wed: Sep 7, 14, 21, 28; Oct 5, 12, 19

4:30 pm–9:00 pm, RPDP, Suite A, Room 35

Carol Long, SNRPDP

longc@rpd.net

RPDPCP: *Algebra for the Classroom Teacher* – SCI 620c

UNLV Class Number: **TBA**

Wed: Oct. 26; Nov 2, 9, 16, 30; Dec 7, 14; Jan 4, 11

4:30 pm–9:00 pm, Cadwallader Middle School, Room 824

Kathleen James, Cadwallader Middle School

jameskl@interact.ccsd.net



Middle School Mathematics Certificate Program (cont'd)

2016–2017 Course Schedule (subject to change):

Fall Semester 2016 (con't)

RPDPCP: Problem Solving in Action, 6–8 – SCI 620e

UNLV Class Number: **TBA**

Tue: Oct 25; Nov 15; Dec 13; Jan 10, 24; Feb 7, 28; Mar 14, 21

4:30 pm–9:00 pm, Suite A, Room 35

Cindy Ortiz, SNRPDP,

ortizc@rpdp.net

Spring Semester 2017

RPDPCP: Introduction to Probability, Statistics, and Geometry Concepts – SCI 620b

UNLV Class Number: **TBA**

Wed: Jan 18, 25; Feb 1, 8, 15, 22; Mar 1, 8, 15

4:30 pm–9:00 pm, RPDP, Suite A, Room 35

Tia Price, SNRPDP

pricet@rpdp.net

RPDPCP: Euclidean and Non-Euclidean Geometry for the Classroom – SCI 620d

UNLV Class Number: **TBA**

Mar 22, 29; Apr 5, 19, 26; May 3, 10, 17, 24

4:30 pm–9:00 pm, SECTA, Room D-130

Teresa Yeoman, Southeast Career and Technical Academy

tyeoman@interact.ccsd.net

RPDPCP: Practicum—Instructional Strategies – SCI 620f

UNLV Class Number: **TBA**

Tue, Jan 31, 4:30pm-9:00pm

Tue, Feb 21, 4:30pm-9:00pm

Tue, Mar 7, 4:30pm-9:00pm

Tue, Apr 4, 4:30pm-9:00pm

Tue, Apr 25, 4:30pm-9:00pm

Tue, May 2, 4:30pm-9:00pm

Tue, May 16, 4:30pm-9:00pm

RPDP, Suite A, Room 35

Carol Long, SNRPDP

longc@rpdp.net

Please Note: The dates above are correct; dates on the UNLV website may differ.



The following classes are not required for the certificate, but are highly recommended.

RPDP: Introduction to TI-84—1 Credit - 15 hrs +9 HW hrs =8 CUs (UNLV SCI 620g)

or No Credit - 15 hrs + 3 HW hrs = 6 CUs

This course is only for beginning users on the TI-84. It introduces ways of incorporating graphing technology into your math lessons to enrich instruction and extend your students' comprehension. Essential math topics such as solving equations, verifying solutions, transformations, systems of inequalities, proportional reasoning, and factoring are correlated to the NVACS.

OR

RPDP: Intermediate TI-84—1 Credit - 15 hrs +9 HW hrs =8 CUs (UNLV SCI 640f)

or No Credit - 15 hrs + 3 HW hrs = 6 CUs

Participants will focus on the appropriate use of technology to solve problems using a variety of calculator functions, such as: tables, graphs and the home screen. This course will pick-up where the introductory class ends and is intended for more advanced users. Participants will explore functions under different menu items as well as engage in math labs and discovery activities. Essential math topics are correlated to the NVACS.

Fall Semester 2016

RPDPCP: Introduction to the TI-84 Graphing Calculator-SCI 620g

UNLV Class Number: **TBA**

Dates and times: Friday, Oct 14, 4:00 pm – 8:00 pm
Saturday, Oct 15, 8:00 am – 4:00 pm
Friday, Oct 25, 4:00 pm – 8:00 pm

Coronado HS, Room 804
Steve Isaak, Coronado High School
sisaaak@interact.ccsd.net

RPDPCP: Intermediate TI-84 – SCI-640f

UNLV Class Number: **TBA**

Dates and times: Friday, February 3, 4:00 pm – 8:00 pm
Saturday, February 4, 8:00 am – 4:00 pm
Friday, February 10, 4:00 pm – 8:00 pm

Coronado HS, Room 804
Steve Isaak, Coronado High School
sisaaak@interact.ccsd.net

Please Note: The dates above are correct; dates on the UNLV website may differ.