NAPA VALLEY UNIFIED SCHOOL DISTRICT

REQUEST FOR INSTRUCTIONAL MATERIAL ADOPTION AND EVALUATION REPORT
High School

High School Site	Signature - Principal or Academic AP Designee	Signature - Teacher Leader (enter N/A if no Teacher Leader)	Comments:
American Canyon HS	Theo Dykzeul	Ron Eick	
Napa HS	Kate Gauger	Sean Gregory	
Napa Valley Independent Studies	Susan Wilson	NA	Is this the correct text book? Response: *Yes, this course and textbook is part of the CCAP agreement to offer existing NVC college courses on our high school campus.*
New Tech HS	Riley Johnson	Jon Southam	
Valley Oak HS	Maria Cisneros	Rafael Garcia Avila	RGA: A Pre-Calc book will be used for Algebra? Response: See above.
Vintage HS	Katelyn Estudillo	Brandon DeJesus	

Request submitted by:	Annie Petrie	School Site:	NVUSD Instructional Services

Executive Director, Secondary Education: _____

Please review below submission and sign above if you approve or write reason in comment area if you do not.

NOTE:
- Approved core materials must be agreed on and used by all high school campuses as the main resource. Approved non-core and supplemental materials must be agreed on by all high schools, but may be used by individual sites to supplement and not "supplant" the core. (core = English, health, mathematics, physical education, sciences, social sciences, and world languages)
- Since NVUSD has moved toward digital usage, we strongly encourage the review and recommendation of new instructional programs that offer online student textbooks and resources rather than printed materials.

Instructional Material Information Cover Sheet

COURSE NAME & NUMBER:__**College Algebra   CC401**_____ DEPARTMENT:___**Math**_____

TITLE OF TEXT:____**Precalculus by Jay Abramson (open source resource)**_____ GRADE(S):____**11-12**_____

Check one: Basic:___**X**___ Supplementary:_____ Check one: Hardcover:_____ Soft cover:_____ Paperback:_____

AUTHOR:__**Jay Abramson**_____ PUBLISHER:_____**OpenStax Texbook**_____

COPYRIGHT DATE:_**October 23, 2014**_____ ISBN#:____ **978-1-947172-06-7**_____ COST:_**$0.00**_____

There are definite criteria to be considered when analyzing and evaluating a prospective text or supplemental instructional material. Give each of the following items listed a rating of 1 (poor) 2 (good) 3 (very good) 4 (the best we have seen).

__3____ 1. Are the objectives clearly stated?

____4___ 2. Do the assessments included, either at the end of a chapter or unit, exactly match the stated objectives?

____4___ 3. Do the objectives for student learning match the outcomes/objectives from the State Framework and Model Curriculum Standards in your content area? If less than a 4, please indicate areas of strength and weakness (be specific)._____

_____

____4___ 4. Do the teaching suggestions and resources suggested by the teacher's edition match the instructional suggestions of the California State Framework and Model Curriculum Standards in your content area? If less than a 4, please indicate areas of strength and weakness (be specific)._____

_____

____3___ 5. Are the teaching suggestions, supplementary materials, etc, valuable?

____4___ 6. In your opinion, will students be able to read this book? Yes X No ☐ If no, what adjustments in teaching strategies are necessary to insure student success?_____

_____

__4____ 7. Is the organization of the text suited to learning and teaching?

____3___ 8. Are the narrative quality and teaching aids provided interesting enough to engage students?

____4___ 9. Are the illustrations in keeping with the times?

__4___ 10. Does the content of this text allow compliance with NVUSD Board of Education Policy 6144 regarding controversial issues and prohibited instruction.

Use this space to compare the development of one important concept in this textbook with the development of the same concept in current textbook:

This is a new course. No previous text.

Concept	Development in Current Text	Development in Recommended Text (including alignment to Common Core standards)

ADDITIONAL COMMENTS:

COURSE TITLE: H College Algebra
COURSE NUMBER: CC401 [NVC Math 106]
GRADE LEVEL: 11 – 12
LENGTH OF COURSE: 1 College Semester (1 year)
GRAD REQUIREMENT: Mathematics (H)
CSU/UC REQUIREMENT: "c" (Mathematics)
VOCATIONAL ED: No
CBEDS NUMBER: 2490 (Dual Enrollment College Course – Mathematics)

NCLB: Yes
NCLB CORE SUBJECT: MT
APPROVAL DATE:

Course Outline Information

1. Student Learning Outcomes:

1. Graph polynomial, rational, radical, exponential, logarithmic and conic equations by hand.
2. Solve polynomial, exponential, logarithmic, systems of equations and inequalities.

2. Course Objectives: Upon completion of this course, the student will be able to:

1. Analyze and investigate properties of functions;
2. Synthesize results from the graphs and/or equations of functions;
3. Graph the elementary functions, examine their basic properties, and apply transformations to the graphs of functions;
4. Recognize the relationship between functions and their inverses graphically and algebraically;
5. Solve and apply rational, linear, polynomial, radical, absolute value, exponential and logarithmic equations, by hand and with technology;
6. Solve linear, nonlinear, and absolute value inequalities;
7. Solve systems of equations and inequalities;
8. Apply the Remainder Theorem, Factor Theorem, and the Fundamental Theorem of Algebra;
9. Apply functions and other algebraic techniques to model real world Science, Engineering and/or Mathematical applications;
10. Analyze conic sections algebraically and graphically;
11. Use formulas to find sums of finite and infinite series; and
12. Use limit notation to discuss end behavior of polynomial and rational functions.

3. Course Content

1. Functions including linear, polynomial, rational, radical, exponential, absolute value, logarithmic: definitions, evaluation, domain and range;
2. Inverses of functions;
3. Algebra of functions;
4. Graphs of functions including asymptotic behavior, intercepts and vertices;
5. Transformations of quadratic, absolute value, radical, rational, logarithmic and exponential functions;
6. Equations including rational, linear, polynomial, radical exponential, absolute value and logarithmic;
7. Linear, nonlinear and absolute value inequalities;
8. Systems of equations (with matrices) and inequalities;
9. Partial fraction decomposition;
10. Characterization of the zeros of polynomials;
11. Properties and applications of Complex numbers;
12. Properties of conic sections;
13. Sequences and series including arithmetic, geometric, recursive, subscript notation and sigma notation;
14. Introduction to limit notation and continuity via polynomial and rational functions.

4. Methods of Instruction:
Activity
Discussion
Lecture
Observation and Demonstration
Projects

5. Methods of Evaluation: *Describe the general types of evaluations for this course and provide at least two, specific examples.*

Typical classroom assessment techniques
Exams/Tests --
Quizzes --
Oral Presentation --
Projects --
Home Work --
Final Exam --
Mid Term --

Additional assessment information:
The Mathematics Department maintains a commitment to diverse teaching methods in courses emphasizing vital quantitative skills and qualitative reasoning ability (PEP Program Mission Statement, 2011). To that end, it is expected that sufficient formative assessments will be given to students that in frequency, length and rigor adequately assess both quantitative skills and qualitative reasoning.

Sample assessment questions follow:
1 - For the function $f(x) = 2x^3 - 3x^2 - 11x + 6$; Use the Rational Zero Theorem to find all the zeros.

2 - Find the vertical asymptotes, if any, and the values of x corresponding to holes, if any, of the rational function $f(x) = (x + 7)/(x^2 + 4x - 21)$

Letter Grade Only

6. Assignments: *State the general types of assignments for this course under the following categories and provide at least two specific examples for each section.*

- *Reading Assignments*
  Read sections from the textbook, for example:
    1. *Read section 2.5 on Transformations of Functions. Be ready to discuss and work on graphing activities in class.*
    2. *Read section 7.1 on The Ellipse. Be ready to discuss and work on graphing activities in class.*
- *Writing Assignments*
  Students will solve text problems regarding College Algebra, for example:
    1. *Complete exercises 1 - 15 odd from section 3.3 on dividing polynomials.*
    2. *Find all requested information and graph the indicated rational functions in exercises 21 - 56 odd from section 3.5 on rational functions and their graphs.*
- *Other Assignments*

7. Instructional Materials
Title: Precalculus (open source resource)
Author: **Jay Abramson**
Publisher: OpenStax Textbook
Date of Publication: 2014

Other required materials/supplies.

- *Graphing Calculator*