

**New Fairfield Public Schools  
New Course or New Instructional Program Proposal**

**Directions:**

Before completing this form, please discuss this proposal with the appropriate administrator(s) in your school. Complete this proposal form thoroughly, and attach any supporting documentation that would help the District Curriculum and Program Council understand this proposal better. Be sure that you adhere to all deadlines\*, and be certain to acquire all required signatures. The deadline\* for any course or program proposal that has budgetary implications and/or needs to be published in the *NFHS Program of Studies* is October 31, so please plan accordingly to make certain that all approvals of this application can be completed by October 31. All other proposals can be forwarded at any time of the year.

- 1. Please list the names and identify the school/department of those individuals who are making this proposal? If those making the proposal are not teachers, please explain thoroughly:**

Dr. Richard Sanzo, Principal  
Mr. Keegan Finlayson, Director of STEM and Intervention  
Mrs. Catherine Hall, Chairperson, Math Department

- 2. Give the title of new course or instructional program. Indicate the department in which this course/program will reside:**

The instructional program being proposed is **College Algebra**

The course will reside in the Mathematics Department

- 3. Please indicate if the new course or instructional program is a semester or year long, and indicate the applicable grade levels. Please indicate the course level if applicable:**

The program would be open to students entering the twelfth grade in September 2019. This is a full year course. The only prerequisite for the course is completion of Algebra 2 with a passing grade.

**4. Please give the rationale for this proposal, and include its relationship to the past, current and future development of curricular offerings in New Fairfield:**

Currently a junior who completes Algebra 2 has the option of taking Pre-Calculus or Intro to Statistics. Some students that have received credit for Algebra 2 have future plans or interests that do not require a Pre-Calculus or Statistics course. This course would provide students an alternative course that would allow them to continue working with the mathematical concepts that they would need for an introductory college math course.

**5. Please indicate the target population for this proposal:**

This course is intended for students in their senior year who have completed Algebra 2 and who would like an alternative class to Pre-Calculus or Statistics.

**6. Please explain if this course or instructional program is an addition or a replacement for an existing course or program.**

This instructional program is an addition to current options offered by the Math Department.

**7. List any prerequisite for this course or instructional program:**

Students must be seniors who have received credit for Algebra 2.

**8. Please write a short description of the new course or instructional program that would be suitable for the high school *Program of Studies* or for a curriculum document:**

College Algebra is intended to be a survey course of core Mathematical concepts that students would need when taking a college or career entrance test such as the ACCUPLACER, ASVAB, SAT or ACT. It will include topics that meet the standards that are assessed on these tests and that are a prerequisite for a college-level Algebra course.

**9. Please list (or attach a list) of the long-term course or program goals that define the broad outcomes that this course or program seeks to help students achieve:**

The goal is to meet the needs of students who have met the requirements for Algebra 2 and have interests that lie outside of Pre-Calculus or Statistics by preparing them to take a college-level mathematics course.

**10. Please indicate what topics, units, or material will be used to meet the long-term goals listed above. How will technology be utilized to enhance the course or program goals?**

**What assessment strategies will be used in this course or program? What are the unique components of this course or program content that makes it a worthwhile addition for our students?**

To meet the needs of the target population, instruction will occur in such topics as:

**College-Level Math**

There are main components of college-level math that will be included in the course:

- **Operations with algebraic expressions (Reinforcement):** topics include the evaluation of simple formulas and expressions, adding and subtracting monomials and polynomials, multiplying and dividing monomials and polynomials, the evaluation of positive rational roots and exponents, simplifying algebraic fractions, and factoring.
- **Solution of equations, inequalities, and word problems (Reinforcement):** topics include solving linear equations and inequalities; solving quadratic equations by factoring; and solving verbal problems presented in an algebraic context, including geometric reasoning and graphing, and the translation of written phrases into algebraic expressions.
- **Algebraic operations:** topics include simplifying rational algebraic expressions, factoring, expanding polynomials, and manipulating roots and exponents.
- **Solutions of equations and inequalities:** topics include the solution of linear and quadratic equations and inequalities, equation systems, and other algebraic equations.
- **Coordinate geometry:** topics include plane geometry, the coordinate plane, straight lines, conics, sets of points in the plane, and graphs of algebraic functions.
- **Applications and other algebra topics:** topics include complex numbers, series and sequences, determinants, permutations and combinations, fractions, and word problems.
- **Functions and trigonometry:** topics include polynomials, algebraic, exponential, and logarithmic and trigonometric functions.

**Additional Topics**

Additional topics and concepts will be included based on student need for future mathematics classes. Such topics will include:

- SAT/ACT Preparation
- Financial Literacy
- Probability and Statistics

**Resources**

The technology that will be used will be the graphing calculator and online programs such as Geogebra and Khan Academy. Many assessment strategies will be used throughout the course including formative and summative assessments as well as some project-based and collaborative assessments. This course has some flexibility in the curriculum to accommodate students of varying abilities and interests.

**11. Please indicate any special location needs, such as the computer lab:**

There will be no special location needs for this course.

**12. Please enumerate the resources – both human and financial – that you anticipate will be needed to develop this course or program correctly. Please indicate any special training that will be necessary to implement this course or program, and give the cost of this training:**

The only human resources required will be a .2 FTE which would be a shift of resources, with no additional FTE. No other costs or training are associated with the new course.

**13. Please give the title and cost of the proposed text and attach it, if possible. Indicate any special equipment needs for this course and the anticipated cost of this equipment:**

Materials for the course would consist of open source released material found on the internet as well as additional supplemental materials already owned by NFPS.

**14. Please address the questions below separately, and then attach your responses to this form:**

**a) What impact will this course/program proposal have upon other courses/programs currently being offered in the district?**

This course is only offered for seniors and does not replace content from any other course and therefore would not have any impact on the other courses offered by the math department.

**b) What impact would this proposal have on scheduling, staffing, and resources?**

None

**c) Do you anticipate that this course/program will have an impact on feeder programs and follow-up courses/programs currently being offered in the district?**

No

**d) What do you anticipate will be the impact – in terms of new print and non-print materials on the library/media center?**

None

**e) Would adoption of this course/program proposal require specific staff adjustments, such as hiring new staff or retaining veteran staff?**

The courses will be taught by current staff with no need to hire additional staff.

**Signatures of those making this proposal: (The signatures indicate that all parts of this proposal have been thoroughly completed.)**

\_\_\_\_\_ Date: \_\_\_\_\_

**Signature of Department Chair indicating approval (if applicable):**

\_\_\_\_\_ Date: \_\_\_\_\_

**Signature of Principal indicating approval: (Please note that this proposal must bear the principal's signature before it can be sent to District Curriculum and Program Council.)**

\_\_\_\_\_ Date: \_\_\_\_\_

**District Curriculum and Program Council Discussion Summary:**

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**Signature of Assistant Superintendent indicating approval:**

\_\_\_\_\_ Date: \_\_\_\_\_

**Curriculum Sub-Committee of the Board of Education Discussion Summary:**

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