

Analytical Algebra II FAQs

Question	Answer
<p>How was the development of Analytical Algebra II initiated?</p>	<p>IC 20-30-10-2.5, passed in 2018, provided the Indiana State Board of Education (State Board) the authority to consider math course requirements other than Algebra II for the Core 40 designation. It was determined that any new course the State Board adopts must have a level of difficulty that aligns with postsecondary preparation.</p>
<p>Who decided on the standards for Analytical Algebra II? Were other courses considered?</p>	<p>The Indiana Department of Education, along with members of the State Board, higher education, and high school teachers came together to review current quantitative reasoning courses offered to assess their appropriateness and rigor to determine if they were of the level of difficulty that aligns with postsecondary institutions. It was determined that those courses were not. From there, the group reviewed standards from Algebra II, Quantitative Reasoning, Finite, and several postsecondary syllabi to establish the skills and concepts that would best prepare students for non-STEM pathways. Those standards, once compiled, were then released for public comment. Feedback from the field drove the final edits and the final release of the standards was made.</p>
<p>What is the vision for Analytical Algebra II?</p>	<p>The vision for Analytical Algebra II is to develop the capacity of students to become quantitatively literate global citizens. Much of the information available is quantitative in nature, and we must equip our students with the skills to analyze and process these data to make every day decisions. Analytical Algebra II focuses on the application of mathematics in various disciplines including business, finance, science, career and technical education, and social sciences. This course covers most of the traditional Algebra II standards, but the focus is on the <i>application of algebraic concepts</i>, rather than theoretical concepts. Additionally, data analysis, statistics, and probability content are included throughout the course, as students collect and use univariate and bivariate data to create and interpret mathematical models.</p>

<p>Which students would benefit from taking Analytical Algebra II in place of traditional Algebra II?</p>	<p>Placement in Analytical Algebra II should be considered for students who have demonstrated difficulty in Algebra I and/or Geometry. Although Analytical Algebra II covers many of the same topics as traditional Algebra II, the standards are written in such a way that the emphasis is taken off the traditional manipulation of functions and theoretical approaches and is placed on the analysis and application of those topics.</p>
<p>Why do students and parents have to sign a consent form?</p>	<p>Per legislation, if a student enrolls in a math course other than Algebra II to satisfy the Core 40 designation requirements, both parent and student must provide consent to the school to enroll in the course. The form, developed by the State Board in conjunction with the Commission for Higher Education, will inform both student and parent that the enrollment in Analytical Algebra II might affect the student’s acceptance into particular postsecondary programs or institutions. The form can be found here.</p>
<p>Will taking Analytical Algebra II instead of traditional Algebra II prevent a student from attending a four-year institution of their choice?</p>	<p>Because Analytical Algebra II will not prepare students for Precalculus, admission to institutions that require Precalculus as a minimum math requirement would be affected. Students and families are encouraged to contact the institution of their choice regarding the acceptance of the Analytical Algebra II credit, especially if additional upper level math courses are not taken. Conversations are ongoing with higher education institutions and information will be updated as it available.</p>
<p>Which of Indiana's postsecondary institutions will be accepting this course?</p>	<p>Analytical Algebra II is still in the early stages, therefore the acceptance from postsecondary institutions is unknown. Students and families are encouraged to contact the institution of their choice regarding the acceptance of the Analytical Algebra II credit, especially if additional upper level math courses are not taken. Conversations are ongoing with higher education institutions and information will be updated as it available.</p>

Will Analytical Algebra II prepare students for college-level math courses?	<p>The rigor of this course, if taught with fidelity, prepares students for regular or dual credit Finite, Quantitative Reasoning, and Probability and Statistics. Students who successfully complete Analytical Algebra II should be encouraged to pursue these pathways both at the high school and post-secondary levels.</p>
Are there any materials or resources either adopted or being considered for Analytical Algebra II?	<p>As with all courses in Indiana, standards are provided but textbooks, specific curriculum, and pedagogical decisions are locally controlled. However, optional digital resources are available on the Indiana Department of Education's standards page for each of our courses.</p>
Will professional development be available to support the pedagogical shift for Analytical Algebra II?	<p>Yes. A professional development plan is being developed to support schools and instructors in their ability to teach the course with fidelity. Regional professional development will begin in the spring of 2019 and will continue through the summer and throughout the 2019-2020 school year. Details and announcements will be made through the math team's monthly newsletter as well as Dr. McCormick's weekly email.</p>
A student barely passes traditional Algebra II as a junior, but wants to continue in math as a senior, could they take Analytical Algebra II and receive two more credits?	<p>No. Both courses fulfill the same graduation requirement. Therefore students would not receive additional credit and it would not count as a fourth year math course. Students should instead be encouraged to take the CCR Bridge: Math Ready course (2514), which utilizes the Southern Regional Education Board (SREB) curriculum and is intended to build critical thinking skills utilized in college and careers.</p>

<p>A student only passes one semester of traditional Algebra II. The following year if they took Analytical Algebra II, could they receive two more credits for this course even though they passed one semester of Algebra II?</p>	<p>No. Both courses fulfill the same graduation requirement. Therefore, the student would not receive additional credit for the semester passed since credit was previously earned.</p>
<p>A student struggles to get through first semester of traditional Algebra II but passes. Could the student be moved in to Analytical Algebra II the second semester and still satisfy graduation requirements?</p>	<p>Maybe. The order in which standards are taught can vary by school so the ability to move to Analytical Algebra II in the second semester would depend on each school's curriculum map. If the material is unique each semester, meaning the same standards are not covered in second semester Analytical Algebra II as were covered in the first semester of traditional Algebra II, then yes.</p>
<p>If a student failed Algebra II, could a passing grade in Analytical Algebra II replace the F from Algebra II in the GPA calculation?</p>	<p>This would be a local decision. If your school district has a policy that the exact same class must be retaken, then the answer should be no. Analytical Algebra II and traditional Algebra II are not the exact same class, though they are similar and do meet the same graduation requirement.</p>

If a student takes Analytical Algebra II and does well, should they take Algebra II the following year?	No. Both courses fulfill the same graduation requirement. Therefore students would not receive additional credit and it would not count as a fourth year math course. Students should instead be encouraged to take regular or dual credit Finite, Quantitative Reasoning, or Probability and Statistics.
Does Analytical Algebra II meet requirements for athletic eligibility?	While we have started talks with the NCAA, acceptance of this course will likely have to be considered at the individual school level because of the amount of local control held by school districts in Indiana. Further guidance will be given as communication continues.
Is there a document that shows the differences between Algebra II and Analytical Algebra II in an easily understandable way?	Yes. You can access this crosswalk here .