**Coursework Planning Form: Faculty**

**Addressing Mathematics across Courses**

**Directions:** In the top row, provide the number and name for each course in your program that addresses the topic. Provide the semester the course is taken. Put an X in the cell to indicate what resources will be used in each course. Once completed, ensure there is no overlap in resources across programs (unless intentional). Additionally, ensure there is not an overload of IRIS activities across courses offered in the same semester.

|  | **Course Name and Number; Semester** |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Modules |  |  |  |  |  |  |
| [Evidence-Based Practices (Part 1): Identifying and Selecting a Practice or Program](https://iris.peabody.vanderbilt.edu/module/ebp_01/) |  |  |  |  |  |  |
| [Evidence-Based Practices (Part 2): Implementing a Practice or Program with Fidelity](https://iris.peabody.vanderbilt.edu/module/ebp_02/) |  |  |  |  |  |  |
| [Evidence-Based Practices (Part 3): Evaluating Learner Outcomes and Fidelity](https://iris.peabody.vanderbilt.edu/module/ebp_03/) |  |  |  |  |  |  |
| [High-Quality Mathematics Instruction: What Teachers Should Know](https://iris.peabody.vanderbilt.edu/module/math/) |  |  |  |  |  |  |
| [Intensive Intervention (Part 1): Using Data-Based Individualization to Intensify Instruction](https://iris.peabody.vanderbilt.edu/module/dbi1/) |  |  |  |  |  |  |
| [Intensive Intervention (Part 2): Collecting and Analyzing Data for Data-Based Individualization](https://iris.peabody.vanderbilt.edu/module/dbi2/) |  |  |  |  |  |  |
| [MTSS/RTI: Mathematics](https://iris.peabody.vanderbilt.edu/module/rti-math/) |  |  |  |  |  |  |
| [Progress Monitoring: Mathematics](https://iris.peabody.vanderbilt.edu/module/pmm/) |  |  |  |  |  |  |
| Case Studies |  |  |  |  |  |  |
| [Algebra (Part 1): Applying Learning Strategies to Beginning Algebra](https://iris.peabody.vanderbilt.edu/wp-content/uploads/pdf_case_studies/ics_alg1.pdf) |  |  |  |  |  |  |
| [Algebra (Part 2): Applying Learning Strategies to Intermediate Algebra](https://iris.peabody.vanderbilt.edu/wp-content/uploads/pdf_case_studies/ics_alg2.pdf) |  |  |  |  |  |  |
| [Mathematics: Identifying and Addressing Student Errors](https://iris.peabody.vanderbilt.edu/wp-content/uploads/pdf_case_studies/ics_matherr.pdf) |  |  |  |  |  |  |
| Activities |  |  |  |  |  |  |
| [Progress Monitoring: Calculating Rate of Growth](https://iris.peabody.vanderbilt.edu/wp-content/uploads/pdf_activities/independent/IA_Rate_of_Growth.pdf) |  |  |  |  |  |  |
| [Progress Monitoring: Scoring Mathematics Computation Probes](https://iris.peabody.vanderbilt.edu/wp-content/uploads/pdf_activities/independent/IA_Scoring_Math_Comp_Probes.pdf) |  |  |  |  |  |  |
| Information Briefs |  |  |  |  |  |  |
| [10 Key Math Practices for All Middle and High Schools with Strong Evidence of Effectiveness from High-Quality Research](https://meadowscenter.org/wp-content/uploads/2022/04/10Keys_SecMath_Web1.pdf) |  |  |  |  |  |  |
| [10 Key Mathematics Practices for All Elementary Schools with Strong Evidence of Effectiveness from High-Quality Research](https://meadowscenter.org/wp-content/uploads/2022/04/10Keys_ElemMath_Web1.pdf) |  |  |  |  |  |  |
| [5 Evidence-Based Recommendations for Teaching Math to Young Children](https://ies.ed.gov/ncee/wwc/Docs/practiceguide/wwc_empg_numbers_020714.pdf) |  |  |  |  |  |  |
| [Algebra for All! Preparing All Students for Success](https://ies.ed.gov/ncee/edlabs/regions/appalachia/blogs/blog5_algebra-for-all.asp) |  |  |  |  |  |  |
| [Assistive Technology for Math](https://www.understood.org/en/articles/assistive-technology-for-math) |  |  |  |  |  |  |
| [Connecting Math and Science to Reading and Writing](https://www.edutopia.org/article/connecting-math-and-science-reading-and-writing) |  |  |  |  |  |  |
| [Development of Mathematical Reasoning](https://ies.ed.gov/ncee/edlabs/infographics/pdf/REL_SE_Development_of_Mathematical_Reasoning.pdf) |  |  |  |  |  |  |
| [Differentiated Learning](https://www.nctm.org/conferences-and-Professional-Development/Tips-for-Teachers/Differentiated-Learning/) |  |  |  |  |  |  |
| [Evidence-Based Math Instruction: What You Need to Know](https://www.understood.org/en/articles/evidence-based-math-instruction-for-struggling-students) |  |  |  |  |  |  |
| [Help Children Learn to View and Describe Their World Mathematically](https://www.michigan.gov/-/media/Project/Websites/mde/Year/2021/02/12/REL-MDE-Math-Math-World.pdf?rev=00fcc0abd3f8480a941c5b3bf0243d09) |  |  |  |  |  |  |
| [How Math instruction and Math Interventions Can Improve Student Outcomes](https://files.eric.ed.gov/fulltext/ED604988.pdf) |  |  |  |  |  |  |
| [How to Differentiate Math Instruction with One-on-One Conferences](https://www.edutopia.org/article/how-differentiate-math-instruction-one-one-conferences) |  |  |  |  |  |  |
| [Improving Mathematical Problem Solving in Grades 4 through 8](https://ies.ed.gov/ncee/wwc/Docs/practiceguide/wwc_mps_tips_072517.pdf) |  |  |  |  |  |  |
| [Infusing EBPs to Improve Middle School Math Instruction](https://mtss4success.org/blog/infusing-ebps-middle-school-math-instruction) |  |  |  |  |  |  |
| [Math Skills at Different Ages](https://www.understood.org/en/articles/math-skills-what-to-expect-at-different-ages) |  |  |  |  |  |  |
| [Multiplicative Reasoning: Part of the Development of Mathematical Reasoning](https://ies.ed.gov/ncee/edlabs/infographics/pdf/REL_SE_Multiplicative_Reasoning_Part_of_the_Development_of_Mathematical_Reasoning.pdf) |  |  |  |  |  |  |
| [Number Representations: An Evidence-Based Math Strategy](https://www.understood.org/en/articles/number-representations-an-evidence-based-math-strategy) |  |  |  |  |  |  |
| [Planning Standards-Aligned Instruction within a Multi-Tiered System of Supports: Counting and Number Sense Example](https://intensiveintervention.org/sites/default/files/CountNumExample_508.pdf) |  |  |  |  |  |  |
| [Proportional Reasoning: Part of the Development of Mathematical Reasoning](https://ies.ed.gov/ncee/edlabs/infographics/pdf/REL_SE_Proportional_Reasoning_Part_of_the_Development_of_Mathematical_Reasoning.pdf) |  |  |  |  |  |  |
| [Redefining Approaches for Engaging English Learners with Mathematical Ideas](https://www.wested.org/wp-content/uploads/2022/09/Redefining-Approaches-for-Engaging-English-Learners-With-Mathematical-Ideas_ADA.pdf) |  |  |  |  |  |  |
| [Reinforce Math Concepts by Integrating Math throughout the Day](https://www.michigan.gov/-/media/Project/Websites/mde/2021/02/12/REL-MDE-Math-Int-Math.pdf?rev=9393813e725a46f49b98b1b26d6f78d7) |  |  |  |  |  |  |
| [Simple Tips to Write Better, More Productive Math Prompts](https://www.edutopia.org/article/simple-tips-write-better-more-productive-math-prompts) |  |  |  |  |  |  |
| [Solving Mathematical Problems in More than One Way: A Guide for Middle School Teachers](https://ies.ed.gov/ncee/rel/infographics/pdf/REL_SE_Solving_Mathematical_Problems.pdf) |  |  |  |  |  |  |
| [Support Geometry, Patterns, Measurement, and Data Analysis Using a Developmental Progression](https://www.michigan.gov/-/media/Project/Websites/mde/2021/02/12/REL-MDE-Math-GPM-DA.pdf?rev=f13367e2693e4a9a8900b374bd7d1187) |  |  |  |  |  |  |
| [Support Number and Operations Using a Developmental Progression](https://www.michigan.gov/-/media/Project/Websites/mde/2021/02/12/REL-MDE-Math-Number-Operations.pdf?rev=9cb64f34771047ec8f130133ad9e3319) |  |  |  |  |  |  |
| [Teaching Strategies for Improving Algebra Knowledge in Middle and High School Students](https://ies.ed.gov/ncee/wwc/Docs/practiceguide/wwc_algebra_summary_072115.pdf) |  |  |  |  |  |  |
| [The Frayer Model](https://assets.ctfassets.net/p0qf7j048i0q/7HielAtOD9GZPemCMHBiCy/22173ac590e7ffb3f7ee12cd531b262d/The_Frayer_Model_Understood.pdf) |  |  |  |  |  |  |
| [There's More to Math Feedback than 'Correct' and 'Incorrect'](https://www.edutopia.org/article/theres-more-math-feedback-correct-and-incorrect) |  |  |  |  |  |  |
| [Using Positive Feedback in Math Classrooms](https://www.edutopia.org/article/using-positive-feedback-math-classrooms) |  |  |  |  |  |  |
| [What Does It Mean to Think Additively? Part of the Development of Mathematical Reasoning](https://ies.ed.gov/ncee/edlabs/infographics/pdf/REL_SE_What_Does_it_Mean_to_Think_Additively.pdf) |  |  |  |  |  |  |
| Interviews |  |  |  |  |  |  |
| [Diverse Learners](https://iris.peabody.vanderbilt.edu/interview/velasquez_diverse_lrn/) |  |  |  |  |  |  |
| Video Vignettes |  |  |  |  |  |  |
| [Explicit, Systematic Instruction: Elementary](https://www.youtube.com/watch?v=YDRsmxPA-J8) |  |  |  |  |  |  |
| [Explicit, Systematic Instruction: High School](https://www.youtube.com/watch?v=jrMFkpn6NPc) |  |  |  |  |  |  |
| [HLP #12: Systematically Design Instruction toward a Specific Learning Goals](https://highleveragepractices.org/hlp-12-systematically-design-instruction-toward-specific-learning-goal) |  |  |  |  |  |  |
| [HLP #16: Use Explicit Instruction](https://highleveragepractices.org/hlp-16-use-explicit-instruction) |  |  |  |  |  |  |
| [HLP #18: Use Strategies to Promote Active Student Engagement](https://highleveragepractices.org/hlp-18-use-strategies-promote-active-student-engagement) |  |  |  |  |  |  |
| [Metacognitive Strategies: Elementary School](https://www.youtube.com/watch?v=1ktU336ATg4) |  |  |  |  |  |  |
| [Metacognitive Strategies: High School](https://www.youtube.com/watch?v=80tGOvMHSVE&t=14s) |  |  |  |  |  |  |
| [Presenting and Comparing Multiple Solutions Strategies](https://www.youtube.com/watch?v=zs5eJFQMrmY&t=2s) |  |  |  |  |  |  |
| [Reinforcement](https://www.youtube.com/watch?v=3OXC2eczdkg&feature=youtu.be) |  |  |  |  |  |  |

**Notes on Use**