

1135-O5-2304 **Karl-Dieter Crisman*** (karl.crisman@gordon.edu). *Number Theory: In Context and Interactive.*

In the typical US curriculum, there are few places where we see the unity inherent in mathematics; each course tends to be a silo with few connections to other courses. But as a junior/senior course, elementary number theory is an excellent vehicle for showing the rich connections inherent in the whole curriculum. In addition, number theory is full of opportunities for interactive exploration, whether by hand or using computer assistance.

For the past dozen years, I've worked to create a truly introductory full-semester course in number theory which has clearly articulated connections to calculus, geometry, and algebra. In addition, I've incorporated dozens of interactive SageMath applets alongside many questions appropriate for in-class inquiry activities; all in a free text (pdf/html using PreTeXt as an authoring tool). In this talk, I hope to convince you that for many instructors, the right way to teach number theory is with a view toward all of math and using computers at many steps; that is, to teach number theory *in context and interactive*. (Received September 25, 2017)