

1056-N1-1477      **Michael Mays\*** ([Michael.Mays@mail.wvu.edu](mailto:Michael.Mays@mail.wvu.edu)), Math Department WVU, Morgantown, WV 26506-6310, and **David Miller** ([millerd@math.wvu.edu](mailto:millerd@math.wvu.edu)), Math Department WVU, Morgantown, WV 26506-6310. *On Line Number and Algebra for In-Service Middle School Math Teachers.*

The on line courses are offered as a two credit hour mathematics course and a one credit hour corequisite Curriculum and Instruction course, part I of both Math and C&I typically taught in the fall semester and part II in the spring semester.

The overall objectives of the courses are to increase knowledge and competence for middle school mathematics teachers in both content and pedagogy related to the teaching and learning of number and algebra.

The “pedagogy” portion, addresses objectives of classroom relevance:

- Relate the advanced mathematical topics above to topics taught in the middle school classroom.
- Examine current research in teaching and learning mathematics.
- Explore model middle school mathematics curricula such as Connected Mathematics.

In addition, applications demonstrate the utility of the mathematics. Technology including graphing calculators, Java applets and other Web resources are used to ground number and algebra concepts and to model and solve real world problems. The applets are also available for download, and are available on line to be incorporated into other courses. (Received September 21, 2009)