962-B1-260   **David A Brown*** (`dbrown@math.cornell.edu`), Cornell University Math Dept, 115 Malott Hall, Ithaca, NY 14853, and **Osman Yurekli** (`yurekli@ithaca.edu`), Ithaca College, Ithaca, NY 14850. *Fractal Geometry as Curriculum Enhancement.* Preliminary report.

In Fall 2000, the two authors have worked together to introduce fractal geometry in a course at Ithaca College entitled Math Explorations. This course was created by the second author as a way to introduce students to the world of reading, writing, and presenting original mathematics. The fractal aspect grew out of a mini-course that the first author has presented to middle school students. In the Fall, the students will be given a basic understanding of fractals and their properties and then they begin to work on individual research projects. Such projects include determining geometric characteristics of branching fractals and using computers and web-based technology to explore the mathematics of fractals. Students give presentations based on the progress of their work, thereby improving their ability to communicate mathematics. They also write a final paper based on their projects, which is useful in teaching the art of mathematical writing. This course provides a fantastic opportunity to bring research to the undergraduate level and build the mathematical confidence of the students. Successful students from this course have, presented their research findings at math meetings including the Hudson River Undergraduate Conference and MAA Seaway section meetings. (Received September 05, 2000)