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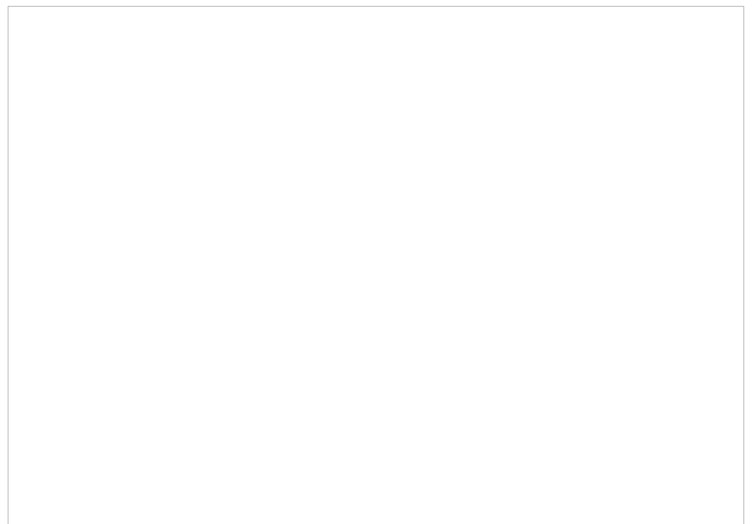
[Andrew Vince](#)

Department of Mathematics

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Tilings and Fractals

MAD 4930 3A31
Fall 2018



Time: MWF period 8
Place: Little 221
Phone: 352-294-2339
Office: 438 Little Hall
Email: avince@ufl.edu

Textbook:

Office Hours: Monday, Wednesday, Friday – period 6
(or by appointment)

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Homework

Show that the sum of the angles of an n -gon is $(n-2)\pi$.

Show (by pictures) that any convex quadrilateral admits a tiling of the plane. (due Monday 27 Aug)

List the symmetries (translations, rotations, reflections glides) of the square tiling of the plane.

Topics

- Tilings
 - A little history
 - What is a tiling?
 - Tilings by polygons
 - Is there a tiling? How many?
 - Symmetry and periodicity of tilings
 - Aperiodic tiling
 - Fractals
 - Examples of fractals
 - Iterated function systems
 - Fractal dimension
 - The Mandelbrot set
 - Tiling with Fractals
 - Construction of fractal tilings
 - Properties of fractal tilings
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Messages

Welcome to Tilings and Fractals

Free tutoring at the Teaching Center, SW Broward Hall. Check [Teaching Center](#) for the time schedule.

Students with disabilities requesting accommodations should first register with the [Disability Resource Center](#) (352-392-8565) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

The course will be conducted in accordance with the [academic honesty policy](#), and policy regarding the use of copyrighted material.

"Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: [attendance policies](#).

Information on current UF grading policies for assigning grade points may be found at: [grades](#).

Students are expected to provide feedback on the quality of instruction in this course by completing [online evaluations](#). Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

Grades

Grades are based on weekly assignments, class presentations, and attendance.

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