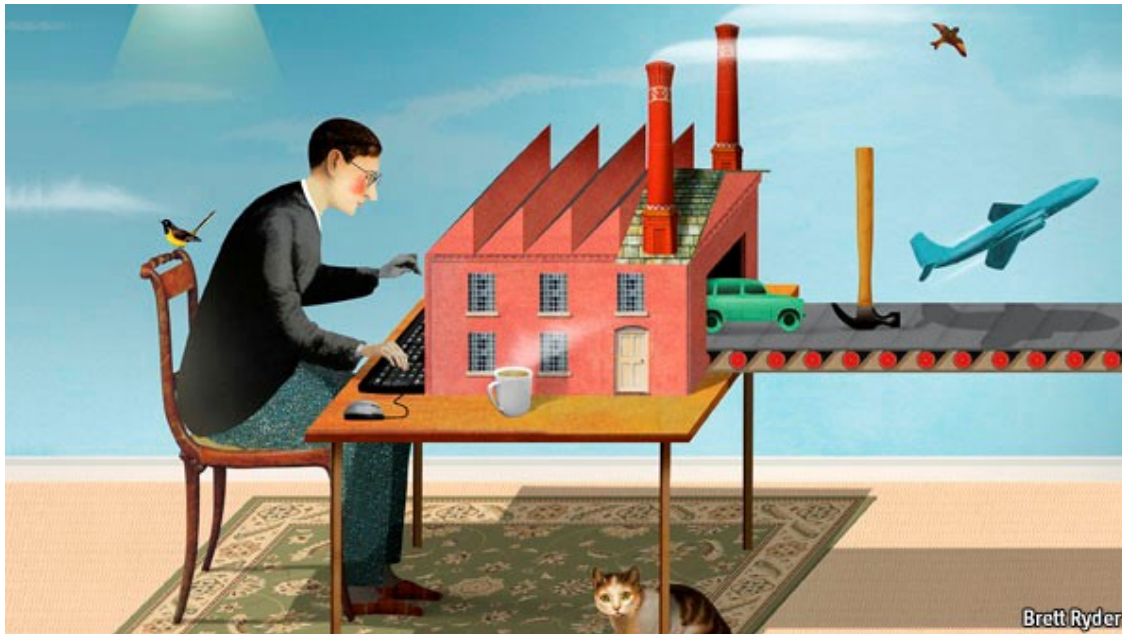


# ME 601 Computational Manufacturing



*Future of 3D Printing, The Economist, April 2012*

## Course Description

This course provides a broad overview on computational tools for additive manufacturing (AM). It introduces computer methods that transform computer-aided design models into AM machine instructions, including slicing, support generation, and path planning. It discusses computational techniques to account for AM constraints in design. It also introduces computational tools for creating designs that can utilize AM flexibility in shape, material composition and structural hierarchy for novel material and structural advantages.

Students will have access to 3D printers in the ME Instructional Lab and Grainger Maker Space.



(a) 3D model



(b) Slices



(c) 3D printed part

**Prerequisite** Undergraduate senior standing or graduate students

**Time** TR 9:30 am to 10:45 am      **Room** Mech Engr 1152

**Instructor** Prof. Xiaoping Qian      **Email** qian@engr.wisc.edu

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