

**GEORGIA INSTITUTE OF TECHNOLOGY**

CIVIL &amp; ENVIRONMENTAL ENGINEERING

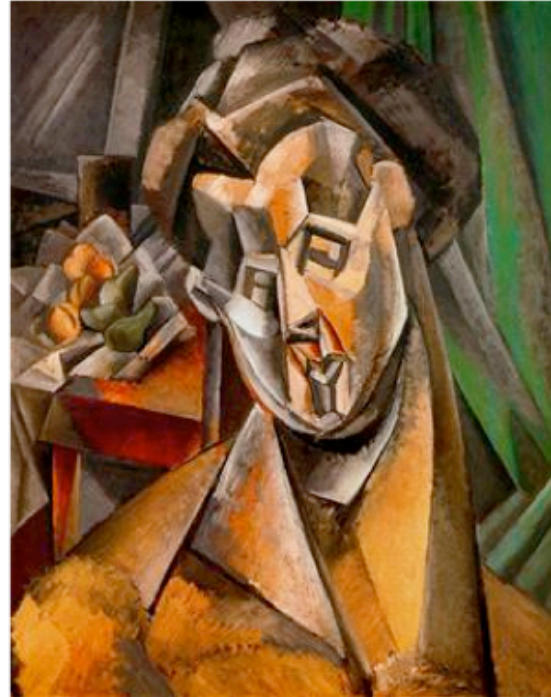
**CEE 8813 SPECIAL TOPICS: VISUAL ARTS & GEOMETRY**Francesco Fedele, [fedele@gatech.edu](mailto:fedele@gatech.edu)

Figure 1: Leonardo da Vinci drawing, Renaissance (left) and Picasso painting, modern art cubism (right)

**COURSE DESCRIPTION**

We will introduce students to the geometry of space and manifolds and how these concepts influenced modern arts and sciences, i.e. Cubism and Einstein's relativity. The realization of geometry is visualization. Students will learn how to draw/sketch by hand in order to stimulate/enhance their visual memory, imagination and practice abstraction of geometric concepts. Fluidity in drawing implies fluidity in thinking. The course will be integrated with weekly lab sessions (3 hours duration) taught by an Atlanta-based professional artist, who will teach students drawing concepts and students will have to practice sketching, and both figure and geometric drawing with a special focus on both exact representation (Renaissance art) and geometric abstraction (cubism, modern Art).