This course will cover the theory, analysis, and design of structures that deploy and reconfigure for functional or adaptive purposes. Applications in civil engineering, mechanical engineering, architecture, aerospace, robotics, and more will be explored. Topics in the class will include:

**Structural Types:**
- Bar linkage systems
- Pantographs (scissor mechs.)
- Origami structures
- Bi/Multi-stable systems
- Metamaterials and unit cells

**Theoretical Concepts:**
- Deployment kinematics
- Stability & boundary conditions
- Geometric constraints
- Mechanical behaviors
- Energy formulations

**Analysis and Design:**
- Matrix analysis methods
- Load cases and design
- Materials and fabrication
- Actuation methods
- Buckling and stress

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Course details at [drsl.engin.umich.edu/courses/](http://drsl.engin.umich.edu/courses/)