Over the past two or three decades, timber engineering and construction has experienced significant and transformative advances, setting wood products up for a comeback to be competitive in building types that have become primarily the domain of steel and concrete. These advances include new engineered wood products, including solid panel products such as cross-laminated timber (CLT), computer numerically controlled (CNC) fabrication, versatile high-efficiency timber connectors, and progress in fire protection engineering. With technical progress and increased demand for wood products comes greater economic opportunities. This course will provide a opportunity for the investigation, analysis and discussion of traditional and modern mass timber connections, including their design and application. This is a research intensive advanced technical elective in which students will work in teams to catalog the historical development of traditional heavy timber connections in different regions of the world. Students will also explore more recent developments that have resulted in more contemporary connection solutions. This research and analysis will provide the basis for group design projects resulting in the development of proposed connection details. Particular focus will be on the structural performance of the mass timber connections, but students will also explore issues of constructability, sustainable manufacturing processes as well as aesthetic qualities.