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Tectonics is the art of deploying construction technology so that it plays an integral role in shaping a design. This course will focus on the three main factors that determine a building's tectonics: the material, the tools and the design. Timber as a building material is experiencing a resurgence with the development of advanced wood products which may be custom engineered to open up new technical and design possibilities. Computing is dramatically altering design and material processes. The class will study classic timber structural systems and examine how they are benefitting from digital techniques. Through readings, lectures, discussion, and hands-on activities with digital models and physical prototypes, you will be encouraged to think creatively and critically on how digital tools can support the tectonic quality of timber buildings.

Format: This course will be taught as a collaboration with Prof. Riggio, an architect and engineer who specializes in timber construction. UO students will have the opportunity to learn from OSU students coming from a wide range of backgrounds. Learning exercises will build partner relationships and interdisciplinary perspectives, culminating in a group project. Timbertech17.com shows previous work.

Classes will be delivered as interactive lecture + hands-on sessions, including remote videoconferences and face-to-face activities. There will be four full-group face-to-face meetings, two visits to Corvallis:
- week 1 (W April 4@7:45am-12:30pm) & week 11
two Eugene design reviews ~9am-12noon:
- week 6 (F May 11) and week 9 (W May 27)

Rhino Grasshopper for parametric modeling and Karamba structural analysis will be taught. Students wishing to have more background in Rhino Grasshopper may take an intensive workshop Saturday April 7 in Corvallis.