# Post-Secondary Lesson Plan

**Building a Bridge**  
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*Audience: College Engineering Class*  
*http://www.howcast.com/videos/316378-How-To-Build-a-Bridge*

| Prior Knowledge | -use of the internet  
| -uses of a Bridge  
| -Mathematics behind a Bridge |
| Objectives | -learn how to make a bridge so that it will not fall over |
| Materials | • -4 concrete pier blocks  
| A level  
| A shovel  
| Hand tools  
| Two support beams  
| Four metal straps  
| Planks  
| Nails or bolts  
| The load for the bridge  
| Firm, dry ground (optional) |
| Procedures | 1) The entire class will work as an entire group  
| 2) Assign specific roles for the design  
| 3) Have them watch the “How to Build a Bridge” video on howcast.com (10 min.)  
| 4) Assign a certain area over a creek so that the Bridges can be made  
| 5) Take the class to this creek and have them prepare the area for the bridge  
| 6) Supply them with all equipment  
| 7) Complete the assignment with the group |
| Assessment | -The students will be tested with how well the bridge was built and if it can hold a predetermined weight set by the professor |