Brainstorming towards a Universal Course

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Multi-university delivery

• Project based
• Project teams: 4 students
• Delivery: February semester
  • 1st semester in southern hemisphere
  • 2nd semester in northern hemisphere
• Motivation for multi-university teams
  • Annual competition (July?) to implement the design in a particular location
    • This requires funding to support team travel; project implementation.
    • Possibly one team from each participating university to compete
Example Project #1

• Small-scale electricity generation using a local hot water stream for an Indonesian village (or NE African)

• Team: 4 students (or four groups of three students from each uni)
  • Expander (possibly adaptation from an automotive scroll compressor)
  • Heat exchanger and condenser (copper coils in hot water spring and cold water pond)
  • Generator and wiring
  • Economic justification and life-cycle costing and maintenance
Example Project # 2

- Solar hot water heating
- Team: 4 students (or four groups of three students from each uni)
  - Collector
  - Hot water tank
  - System design
  - Needs analysis and life-cycle costing; and maintenance