

Course Details

**Engineering
Biomechanics
Spring 2009**

Session 1



The Instructor

- **Benjamin S. Kelley (Professor Kelley)**
- **Baylor University**
 - Waco, Texas, USA
 - Dean, School of Engineering and Computer Science
- **Vietnam Education Foundation (VEF)**
 - U.S. Faculty Scholar
- **Mr. Rhett Rigby- graduate student**

The Course

Engineering Biomechanics

- **In English (American style)**
- **February and May at HUT (8:00-10:00 am)**
- **March and April, from Baylor (7:00-9:00 am)**
- **Built around a design project**
 - Design report and presentation
 - Orthopedic “bone plate”
- **Mid-term exam and Final exam**

Assumptions

- **It will not be perfect**
 - We will learn, cooperate, and grow together
- **Course Improvement**
 - You help me to improve the course
- **You will participate in every class session**
 - And also be prepared

Grading

- **Mid-term exam**
- **Final exam**
- **Team Design Report**
- **Team Design Presentation**
- **Homework assignments**
- **Surprise (pop) quizzes**
- **Graded American style; Vietnamese scale**

Homework Assignments

- Only your work
- Technical content
- Must communicate your solution
- Turn in at beginning of class
- Must be readable (neat)
- Answer must be obvious
- Make your mother proud

Course Book

- **Compiled from internet sources**
- **Custom for this course**
- **By session/chapter/class day**
- **Title page with references**
- **PowerPoint slides**
- **Reading**

During the Class

When teaching from Hanoi

- I will speak slowly
- You must ask questions
- Slides from book

When teaching from Baylor

- You will be able to see and hear me
- You must ask questions
- Slides from book

Outside of the Class

- **I am available outside of class to assist**
 - I will tell you when and where I am available
- **The HUT teaching assistant can help**
 - During and outside of class
- **Mr. Rhett Rigby**
 - Baylor graduate student
 - Teaching assistant

Course Syllabus

- **Included in book**
- **While in Ha Noi (February)**
 - Design concepts and technical content
 - Anatomy and technical content
- **While at Baylor (March & April)**
 - Technical content and technical content (same)
- **While in Ha Noi (May)**
 - Muscle and other topics
 - Design presentations

Course Learning Objectives

By the end of the course students should:

1. **Have a basic understanding of the function of the musculoskeletal system**
2. **Be able to apply principles of materials mechanics evaluate stresses in bone**
3. **Have an awareness of materials and design of orthopedic implants**
4. **Be able to apply the engineering design process for an orthopedic device**

