

**MSCI 261 Engineering Economics: Financial Management for Engineers
Spring 2014**

HW 3

Due: Friday, 11 July before 5 p.m. Place hard copy in drop box; soft copy to Learn.

Part A.

| <i>TEXTBOOK CHAPTER</i> | <i>QUESTION</i> |
|-------------------------|-----------------|
| 07 | 87 |
| 08 | 6, 16, 34, 36 |

Please note: For Chapter 08, the term “choice table” is defined in the textbook. It merely delineates where (in terms of the interest rate) the IRRs occur and where the curves intersect. This maps out your choice criteria for which project you pick based on a range of interest rates. Please see the book for more clarification.

Part B.

WatGym plans to upgrade its exercise equipment, by adopting one of the three options below. The first option is to pay the entire price \$70,000 now. The second is to pay in 10 equal installments for \$10,000 each, from the end of the first year. The third is to pay \$30,000 now and \$5,000 at the end of each year for the next 10 years. The benefit of all options is the same, and we assume it is zero. With 8% of MARR, which option should WatGym choose? Use an IRR comparison method. (*Hint:* The benefits of each option are the same. Use any number to solve the problem. I would use zero, but you can use 10 or 100.)