SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL STEWARDSHIP

ENGR 202 - Fall 2016

Assignment No 2

Instructor : Dr. John Hadjinicolaou

Assignment due December 1 and 2, 2016

Objective

The objective of the assignment is exposing the students to new sustainable technologies (products , processes , software, etc.) and the Life Cycle Analysis of Such technologies. The students will learn how to perform the LCA in their own domain of engineering. This analysis is done in groups (5-10 students) ; therefore students will also be exposed to a collaborative teamwork and leadership issues.

Grading

60% for quality and completeness of report, 20% for originality and 20% for your individual contribution according to your statements attached to the report and sign by all the team members.

Preparation of the report : Includes :

a. First page containing: names of team members, students' Ids, course number and section, date

b. Abstract (1 page) (5%)

c. Table of contents that includes the names of authors of particular sections

(work on LCA should be divided among particular group members)

d. Detailed description of the technology (10%)

e. Description of the Life Cycle Analysis of your technology, which includes all LCA steps (see lectures, textbook and other publications) (30%)

i.e. Use of renewable resources, Use of non-renewable resources, Use of energy, Production of wastes, Emissions of gases ,heat and GHGs.

f. Specifications regarding environmental benefits of the provided technology in comparison to a commonly (presently) used technology if it exists. (10%)

g. References (5%)

Expectations

1. Produce a professional report on a LCA of a sustainable technology

(No limit of pages, 1.5 spacing)

2. References should be included in the text and reported in the references. An exact text taken from a publication should be provided in quotations "...".