# Coursework for MEM1001

## Description of the Coursework

There will be a group project as coursework for this lecture. This project consists of one homework assignment which is going to be a written report and an oral presentation. Every student needs to participate in the oral presentation.

## Grading of the Coursework

Coursework is 20% of the total grade (counts as 2nd midterm).

* Homework assignment (written report) is 14%
* Oral presentation is 6%

## Evaluation Criteria of the Coursework

* Relevance of report/presentation content to the subject title
* The quality of academic writing used for the report
* The use of language and terminology in the presentation
* The quality of presentation, use of figures and data etc.
* The quality and quantity of references used for the report/presentation

## Deadline for the Coursework

To be announced.

## Explanation of the Coursework

In this coursework students will examine an industrial sector from the perspective of its life cycle, social and environmental impact and sustainability. Students need to study these sectors from beginning to the end. For example, how do they make a product? Where are the raw materials coming from? How do they manufacture products? What are the impacts of these products during usage? How do they get disposed?

The students should give an overview of the sector, its goods/products/services and explain the steps of pre-manufacturing, manufacturing, during usage and end of life/disposal/recycling. In each step emphasize sustainability and impact, specify how these can be improved. The report and presentation should cover the following points:

1. **Introduction to the Sector**: Overview and importance of the sector in modern industry and society.
2. **Goods/products/services**: Explain important goods/products/services that this industry offers.
3. **Pre-manufacturing - Raw Materials**: Identify the key raw materials used in the sector and where they come from.
4. **Manufacturing Process**: Describe the production process, energy usage, and environmental impacts.
5. **Usage Impacts**: Analyse how the products are used and their environmental and social effects during the usage phase.
6. **End of Life/Disposal**: Discuss how the products are disposed, the challenges related to recycling or waste management, and potential circular economy solutions.
7. **Environmental and social impact**: Emphasize environmental and social impacts of each step of the life cycle of the sector.
8. **Sustainability Improvements**: Provide recommendations on how the sector could reduce its environmental footprint and become more sustainable.

## Topics

1. Chemical Engineering
2. Polymers/Plastics
3. Automotive
4. Construction
5. Pharmaceuticals
6. Electronics
7. Renewable Energy (Renewable Energy Equipment such as solar panels/wind turbines)
8. Textiles and Fashion
9. Aviation and Air Travel
10. Shipping and Maritime Industry
11. Packaging
12. Mining/Raw Materials Extraction

## Groups

|  |  |  |  |
| --- | --- | --- | --- |
| Group No | Student No | Student Name | Topic |
| Group 1 | 24054004 | HATİCE HAZAL KILIÇ | Chemical Engineering |
| 23054045 | AHMET TUNAHAN ÖZDEMİR |
| 23054086 | HASAN KAYA ÖZEL |
| 24054082 | HELİN OĞURLU |
| 24054615 | RANA DEMİRCİOĞLU |
| 24054094 | İREM AKÇAY |
| 23054098 | KEREM TOPÇAM |
| 23054043 | PELİN DAYIOĞLU |
| 23054088 | EMİRHAN TAPTI |
| 23054019 | ERALP İBİŞ |
| Group 2 | 23054063 | ELİF IŞIK | Polymers/Plastics |
| 23054059 | MELAHAT BEYZA ÖZÜLKÜ |
| 23054084 | OĞUZHAN BURAN |
| 24054057 | ARDA PARILTI |
| 23054057 | MUHAMMED ADAK |
| 24054611 | ARDA ATEŞ DEMİR |
| 23054047 | ONUR UTKU SAKCI |
| 24054617 | MERVENUR ACAR |
| 23054032 | ELİF ENGEREK |
| 23054008 | YİĞİT EFE YILMAZ |
| Group 3 | 23054068 | HACER BEYZA SAKA | Pharmaceuticals |
| 23054042 | EMİRHAN AKTAŞ |
| 23054004 | NİSA TURGUTELİ |
| 23054101 | AFRA BETÜL ÇELİK |
| 23054077 | ZEKİ SELİK |
| 23054062 | MELİH ARSLAN |
| 23054069 | ERAY UFUK PARLAK |
| 22054055 | İREM CEYDA AHÇIOĞLU |
| 23054016 | MEHMET EREN ARSLAN |
| 24054618 | İLAYDA ÖZLÜ |
| 23054089 | MEHMET CAN GÖRELİ |
| Group 4 | 23054021 | EMİRHAN AŞCI | Electronics |
| 23054075 | BARIŞ BİLGİN |
| 23054049 | ÜMEYYİR RAHMAN ÖZLÜ |
| 24054037 | GAMZE MELEK DEMİRBAŞ |
| 24054603 | EBRAR MELİKE KİLİÇ |
| 23054013 | ATA DİNÇ |
| 24054601 | MERT ÇETİN |
| 22054005 | HALİL UZUN |
| 24054610 | BURCU ÖZKUL |
| 24054609 | ECEM NUR ÖZDEMİR |
|  |  |  |  |
| Group 5 | 23054091 | TOLGA BAKIRSOY | Renewable Energy and Renewable Energy Products (i.e. Solar cells, wind turbines etc.) |
| 24054070 | BEKİR BORA ÇEVİK |
| 24054005 | RUMEYSA AYDIN |
| 24054038 | MUHAMMED EFE BACAKSIZ |
| 23054023 | MERİÇ AYTAÇ |
| 23054014 | SENA GEZEN |
| 24054083 | UMUT NARİN |
| 23054103 | BEYZA BOZTEPE |
| 24054034 | MENNAN YAĞIZ SARIOĞLU |
| 23054036 | ÖZLEM UĞUR |
| Group 6 | 24054602 | TUANA DENİZ DURKAYA | Construction |
| 23054031 | YUNUS EMRE DEMİR |
| 24054613 | MURATCAN AZMAN |
| 23054080 | MELİKE BIYIKOĞLU |
| 23054074 | OĞUZHAN POLAT |
| 23054090 | EYLÜL ÖZCAN |
| 23054006 | CANER HERGÜL |
| 23054065 | FATİH KENDİR |
| 19054505 | HALİL YAĞCI |
| 24054614 | MUSTAFA ERSİN ŞEKERCİ |
| 23054039 | KÜBRA BİÇER |
| Group 7 | 23054073 | SELENAY TEMEL | Automotive |
| 24054023 | CAN ALKAN |
| 23054028 | KAAN DÖNMEZ |
| 24054043 | YASİR SELÇUK |
| 23054102 | BERİL GÜNAYDIN |
| 24054076 | DENİZ KANDEMİR |
| 24054036 | BATU ERTUĞ |
| 23054612 | BARIŞ SEVAT |
| 24054079 | ASLI BARIŞ |
| 23054501 | METE KARATAŞ |
| Group 8 | 23054079 | EREN AJMAL | Aviation and Air Travel |
| 23054001 | GÖRKEM AKYÜZ |
| 23054037 | SÜMEYYE ÇAĞLA ÖZÇAT |
| 24054607 | SEVGİ KAMİŞ |
| 22054501 | BİLGESU KARAİBRAHİM |
| 24054612 | YUNUS EMRE HEPŞEN |
| 24054084 | HÜSEYİN EDİS |
| 23054015 | ECEM ALBAYRAK |
| 24054053 | YİĞİT ERSAN KANTARCI |
| 23054051 | GÖKSU NUR GÜRER |
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| Group 9 | 23054082 | AYŞE DİLA GİRGİN | Shipping and Maritime Industry |
| 22054611 | YUSUF AKAR |
| 23054034 | SENA GÜZEL SARICA |
| 24054104 | MEHMET BİLAL YAMAN |
| 24054608 | AHMET EDİP UYAR |
| 24054001 | MEHMET ALPER GÖK |
| 23054097 | MÜCAHİT KÜÇÜK |
| 23054702 | ÖMER GÜNEŞ |
| 24054012 | ESMANUR ALP |
| 23054007 | MERVE ÜNSAL |
| 23054087 | ZEYNEP BALABAN |
| Group 10 | 23054058 | ELİF SILA ÜNALAN | Textiles and Fashion |
| 23054002 | UĞUR ALP ONAR |
| 21054001 | EMİRCAN YILDIZ |
| 23054619 | HATİCE NAZAN EKMEKCİ |
| 24054060 | EREN KUZU |
| 24054616 | CANSIN BAŞAR |
| 23054093 | BORAN SARICI |
| 23054072 | SELAMİ ZEYBEK |
| 24054061 | ALİ METEHAN DAĞ |
| 24054081 | MİRAY CEYLAN |
| Group 11 | 23054092 | EDA NAZLI SUNAR | Packaging |
| 24054072 | YİĞİT EMRE BALTA |
| 23054018 | BÜŞRA FAHUM |
| 22054502 | ALP TUNA KOÇAK |
| 23054030 | NEHİR KÜÇÜKERTEM |
| 23054046 | ÖZNUR SALİHOĞLU |
| 22054059 | VOLKAN ÖZCAN |
| 23054029 | UTKU KIRÇALI |
| 23054066 | EREN DOĞUKAN KALA |
| 23054025 | MELİH ÇELEBİ |
| Group 12 | 23054085 | NİSA İSLAMOĞLU | Mining/Raw Materials Extraction |
| 22055805 | EREN SEKMEN |
| 23054067 | MUHAMMET ALİ GAZİ |
| 24054073 | DİLARA İNCİ |
| 23054038 | YAĞMUR İREM DALKIRAN |
| 23054055 | ADEM BÜYÜKÇELEBİ |
| 23054026 | MEHMET REDAN ÖZER |
| 23054071 | YASİN YÜKSEL |
| 24054088 | NEYREN MİNA ABALIOĞLU |
| 24054604 | AYBERK YAZICI |
| 23054094 | GÖZDE CANPOLAT |