**School of Civil and Environmental Engineering, AAiT**

**Academic Year 2019/20, Semester II**

**Water and Wastewater Treatment & Process Design (CENG 6656)**

**List of Assignments**

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| **No** | **Assignment** | **Submittal** | **Submission date** |
| 1 | Reading assignments on:   * Water quality and public health * Fundamental principles of environmental engineering   **( File: Principles of Water Treatment.pdf, Chapters #2 & 4)** | Not required | - |
| 2 | Make a Literature review on plant-based natural coagulants  **File: Refer to relevant documents** | A report (max. 10 pages) | May 22, 2020 |
| 3 | Problems on coagulation & flocculation and sedimentation  **(File: Problems on coagulation and sedimentation.docx)** | Solutions to problems | May 29, 2020 |
| 4 | Reading assignment on plate and tube settlers  **File: Refer to relevant documents** | Not required |  |
| 5 | Make review of key planning, design and construction considerations for water treatment plants and report  **(File: AWWA\_Water Treatment Plant Design.pdf, Chapters 2 & 3)** | A report (max. 5 pages) | June 12, 2020 |
| 6 | Reading assignment on Roughing Filters  **Roughing\_filter\_for\_water\_pre-treatment\_technology.pdf** | Not required |  |
| 7 | Problems on Filtration, Disinfection, Softening and Adsorption  **(Problems on Filtration\_chlor\_soft\_adso.docx)** | Solutions to problems | July 17, 2020 |
| 8 | Reading assignment on analysis and selection of wastewater treatment processes  **(File: Wastewater\_Characteristics\_Treatment and Disposal.pdf, Chapter #4.7)** | Not required |  |
| 9 | Review the UN World Water Development Report 2017 on Water Reuse and Resource Recovery (Chapters 16 & 17) and report the key lessons drawn  **(File: UN\_WWR\_2017\_Wastewater\_Untapped Resource.pdf)** | A report (max. 5 pages) | Jul 31 2020 |