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| **Institute of Technology (IT) - university of Ouargla –** **Department: Applied Engineering** |

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| **SUBJECT SYLLABUS** **(to be published on the website)** |
| **Material Sciences 2 MDF** |

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| **COURSE TEACHER** | Younes BOULAADJOUL  |
| Receiving students per week |
| Email  | **Boulaadjoul.younes@univ-ouargla.dz** | Day  | Thursday  | Hour  | 9:30:00 AM |
| Landline phone |  | Day |  | Hour  |  |
| Secretary phone  |  | Day  |  | Hour  |  |
| Other  | **662384973** | Building  | **ISTA**  | Office  | Amphyth. F |

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| **Tutorials**(Receiving students per week) |
| Name of teacher | Office/reception room | Session 1  | Session 2 | Session 3  |
| Day  | Session | Day | Hour | Day | Session |
|  | **Room 02** | **Tuesday**  | **8:00:00 AM** |  |  |  |  |
|  | **Room 05** | **Tuesday**  | **9:30:00 AM** |  |  |  |  |
|  | **Room 04** | **Thursday**  | **08:00** |  |  |  |  |
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| **Practical works**(Receiving of students per week) |
| Name of teacher | Office/reception room | Session 1  | Session 2 | Session 3  |
| Day  | Session | Day | Hour | Day | Session |
| Mohammed Lazher Messaoudi | Renewable energies lab | Tuesday  | 8:00  |  |  |  |  |
|  | Renewable energies lab | Tuesday  | 9:30  |  |  |  |  |
|  | Renewable energies lab | Thursday  | 08:00 |  |  |  |  |
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| **Course description** |
| Objective  | Know the constituent phenomena of (fluid) mechanics and use these notions to interpret the safety conditions of machines and construction |
| Type of Teaching Unit | UEF (Fundamental) |
| Short content | Description of a fluid environment, properties and associated quantities (pressure and constraints, speed and flow, viscosity, ...), fluid statics, dynamics of perfect and real fluids (continuity equations, Bernoulli's equation, Euler's theorem , rheology), flow in cylindrical pipe, pumps and compressors. |
| Subject Credits | 3 |
| Subject coefficient | 3 |
| Weighting Participation |  |
| Weighting Attendance |  |
| Average Calculation |  |
| Skills targeted | Knowing the constituent phenomena of fluid mechanics |

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| **Assessment of continuous knowledge test** |
| **First knowledge test** |
| Day | Session | Duration | Type (1) | Doc. Allowed (yes/no) | Scale | Exchange after evaluation (date of sheet consulting) | Evaluation criteria (2) |
| Tuesday  | 8:00:00 AM | 60 | E | No |  |  | A, S, AR, D, R |
| **Second knowledge test** |
| Day | Session | Duration | Type (1) | Doc. Allowed (yes/no) | Scale | Exchange after evaluation (date of sheet consulting) | Evaluation criteria (2) |
|  |  | 60 | E | No |  |  | A, S, AR, D, R |

(1) Type: E=written, EI=individual presentation, EC=class presentation, EX=experimentation, MCQ

(2) Assessment criteria: A=Analysis, S=synthesis, AR=argumentation, D=approach, R=results.

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| **Used Equipment and Material**  |
| Platforms addresses  |  |
| Application names (web, local networks) |  |
| Handouts  |  |
| Laboratory material  | Fluid statics bench - Hydrostatic force bench |
| Protective material  |  |
| Material to be used in the field  |  |

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| **Expectations** |
| Expectations of students (Participation-involvement) |  |
| Teacher expectations |  |
| **Bibliography** |
| Books and digital resources  |  |
| Articles (papers)  |  |
| Handouts  |  |
| Websites  |  |

Stamp of the department