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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**](mailto: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