

**PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA
MINISTRY OF HIGHER EDUCATION
AND SCIENTIFIC RESEARCH**

**HARMONIZATION
MASTER TRAINING OFFER**

ACADEMIC

| Establishment | Faculty / Institute | Department |
|---|---|--------------------------|
| Med Khider Biskra University | Exact Sciences and Sciences of Nature and Life | Science of matter |

Field: Material sciences

Branch: Physics

Specialty: Condensed Matter Physics

Academic year: 2016-2017

الجمهورية الجزائرية الديمقراطية الشعبية

وزارة التعليم العالي والبحث العلمي

مواعمة

عرض تكوين ماستر

أكاديمي

| القسم | الكلية/ المعهد | المؤسسة |
|-------------|--|-----------------------|
| علوم المادة | العلوم الدقيقة و علوم الطبيعة و الحياة | جامعة محمد خيضر بسكرة |

الميدان : علوم المادة

الشعبة : فيزياء

التخصص : فيزياء المادة المكثفة

السنة الجامعية: 2017/2016

1- Semester 1 :

| Teaching unit | SHV | weekly V.H | | | Others | Coeff | Credits | Evaluation mode | |
|---|---------------|-------------|-------------|-------------|---------------|-----------|-----------|-----------------------|-------------|
| | 14-16 Week | Lectures | TS | PW | | | | Continuous assessment | Final exam |
| Fundamental TU | | | | | | 9 | 18 | | |
| FTU1 (O/P) | 112H30 | 3H00 | 3H00 | 1H30 | 137H30 | 5 | 10 | | |
| Advanced Solid State Physics | 67H30 | 1H30 | 1H30 | 1H30 | 82H30 | 3 | 6 | 33% | 67% |
| Physics of Semiconductors 1 | 45H00 | 1H30 | 1H30 | | 55H00 | 2 | 4 | 33% | 67% |
| FTU2 (O/P) | 90H00 | 3H00 | 3H00 | | 110H00 | 4 | 8 | | |
| Advanced Statistical Physics | 45H00 | 1H30 | 1H30 | | 55H00 | 2 | 4 | 33% | 67% |
| Interaction Radiation Matter | 45H00 | 1H30 | 1H30 | | 55H00 | 2 | 4 | 33% | 67% |
| methodology TU | | | | | | 5 | 9 | | |
| MTU1 (O/P) | 105H00 | 3H00 | 1H30 | 2H30 | 120H00 | 5 | 9 | | |
| Mathematical Methods and Algorithms for Physics | 60H00 | 1H30 | | 2H30 | 65H00 | 3 | 5 | 33% | 67% |
| Point-Linear and Diffusion Faults | 45H00 | 1H30 | 1H30 | | 55H00 | 2 | 4 | 33% | 67% |
| discovery TU | | | | | | 2 | 2 | | |
| DTU1 (O/P) | 45H00 | 1H30 | 1H30 | | 5H00 | 2 | 2 | | |
| Tensor Calculations for Crystals | 45H00 | 1H30 | 1H30 | | 5H00 | 2 | 2 | 33% | 67% |
| transverse TU | | | | | | 1 | 1 | | |
| TTU1 (O/P) | 22H30 | 1H30 | | | 2H30 | 1 | 1 | | |
| Scientific English | 22H30 | 1H30 | | | 2H30 | 1 | 1 | | 100% |
| Total Semester 1 | | | | | | 17 | 30 | | |

2- Semester 2 :

| Teaching Unit | SHV | weekly V.H | | | Others | Coeff | Credits | Evaluation mode | |
|---|---------------|-------------|-------------|-------------|---------------|-----------|-----------|-----------------------|-------------|
| | 14-16 Week | Lectures | TS | PW | | | | Continuous assessment | Final exam |
| fondamentalesTU | | | | | | 10 | 18 | | |
| FTU1 (O/P) | 112H30 | 4H30 | 3H00 | | 137H30 | 5 | 10 | | |
| Physical Properties of Condensed Matter 1 | 67H30 | 3H00 | 1H30 | | 82H30 | 3 | 6 | 33% | 67% |
| Magnetism and Superconductivity | 45H00 | 1H30 | 1H30 | | 55H00 | 2 | 4 | 33% | 67% |
| FTU2 (O/P) | 90H00 | 3H00 | 3H00 | | 110H00 | 4 | 8 | | |
| Quantum Mechanics of Condensed Matter | 45H00 | 1H30 | 1H30 | | 55H00 | 2 | 4 | 33% | 67% |
| Symmetries and Group Theories in Physics | 45H00 | 1H30 | 1H30 | | 55H00 | 2 | 4 | 33% | 67% |
| methodology TU | | | | | | 5 | 9 | | |
| MTU1 (O/P) | 105H00 | 3H00 | | 4H00 | 120H00 | 4 | 9 | | |
| Characterization of Materials | 60H00 | 1H30 | | 2H30 | 65H00 | 3 | 5 | 33% | 67% |
| Computer programming | 45H00 | 1H30 | | 1H30 | 55H00 | 2 | 4 | 33% | 67% |
| discovery TU | | | | | | 2 | 2 | | |
| DTU1 (O/P) | 45H00 | 1H30 | 1H30 | | 5H00 | 2 | 2 | | |
| Ceramics and Glass | 45H00 | 1H30 | 1H30 | | 5H00 | 2 | 2 | 33% | 67% |
| UE transverse TU | | | | | | 1 | 1 | | |
| TTU1 (O/P) | 22H30 | 1H30 | | | 2H30 | 1 | 1 | | |
| Nanomaterials | 22H30 | 1H30 | | | 2H30 | 1 | 1 | | 100% |
| Total Semester 2 | | | | | | 17 | 30 | | |

3- Semester 3 :

| Teaching Unit | SHV | weekly V.H | | | Others | Coeff | Credits | Evaluation mode | |
|---|---------------|-------------|-------------|-------------|---------------|-----------|-----------|-----------------------|-------------|
| | 14-16 Week | Lectures | TS | PW | | | | Continuous assessment | Final exam |
| fondamentalesTU | | | | | | 10 | 18 | | |
| FTU1 (O/P) | 112H30 | 4H30 | 3H00 | | 137H30 | 5 | 10 | | |
| Physical Properties of Condensed Matter 1 | 67H30 | 3H00 | 1H30 | | 82H30 | 3 | 6 | 33% | 67% |
| Magnetism and Superconductivity | 45H00 | 1H30 | 1H30 | | 55H00 | 2 | 4 | 33% | 67% |
| FTU2 (O/P) | 90H00 | 3H00 | 3H00 | | 110H00 | 4 | 8 | | |
| Quantum Mechanics of Condensed Matter | 45H00 | 1H30 | 1H30 | | 55H00 | 2 | 4 | 33% | 67% |
| Symmetries and Group Theories in Physics | 45H00 | 1H30 | 1H30 | | 55H00 | 2 | 4 | 33% | 67% |
| methodology TU | | | | | | 5 | 9 | | |
| MTU1 (O/P) | 105H00 | 3H00 | | 4H00 | 120H00 | 4 | 9 | | |
| Characterization of Materials | 60H00 | 1H30 | | 2H30 | 65H00 | 3 | 5 | 33% | 67% |
| Computer programming | 45H00 | 1H30 | | 1H30 | 55H00 | 2 | 4 | 33% | 67% |
| discoveryTU | | | | | | 2 | 2 | | |
| DTU1 (O/P) | 45H00 | 1H30 | 1H30 | | 5H00 | 2 | 2 | | |
| Ceramics and Glass | 45H00 | 1H30 | 1H30 | | 5H00 | 2 | 2 | 33% | 67% |
| transverse TU | | | | | | 1 | 1 | | |
| TTU1 (O/P) | 22H30 | 1H30 | | | 2H30 | 1 | 1 | | |
| Nanomaterials | 22H30 | 1H30 | | | 2H30 | 1 | 1 | | 100% |
| Total Semester 2 | | | | | | 17 | 30 | | |

