وزارة التعليم العالي والبحث العلمي

جـــهاز الإشـــراف والتقـويم العلـمي

دائرة ضمان الجودة والاعتماد الأكاديمي

استمارة وصف البرنامج الأكاديمي للكليات والمعاهد

الجامعة : البصرة

الكلية/ المعهد: التربية للعلوم الصرفة

القسم العلمي : الفيزياء

تاريخ ملء الملف : 2021/10/2

التوقيع :

اسم رئيس القسم : أ.د. جبار منصور خلف

التاريخ :

التوقيع :

اسم المعاون العلمي : أ.د. عبد الستار جابر علي

التاريخ :

دقق الملف من قبل

شعبة ضمان الجودة والأداء الجامعي

التوقيع :

اسم مدير شعبة ضمان الجودة والأداء الجامعي: أ.م.د. نادية عاشور

التاريخ

مصادقة السيد العميد

وصف البرنامج الأكاديمي

تأسس قسم الفيزياء في العام الدراسي 1975-1976 وكان مع قسم علوم الرياضيات يشكلا قسما واحدا وفي العام 1982-1983 اصبح قسما مستقلا. يمنح القسم شهادة البكالوريوس علوم في الفيزياء حيث يكون الخريج مؤهلا" لتدريس الفيزياء في المدارس الثانوية العامة

1. المؤسسة التعليمية	جامعة البصرة
2. القسم العلمي / المركز	قسم الفيزياء
3. اسم البرنامج الأكاديمي او المهني	الفيزياء
4. اسم الشهادة النهائية	بكالوريوس علوم في الفيزياء
5. النظام الدراسي : سنوي /مقررات /أخرى	النظام السنوي
6. برنامج الاعتماد المعتمد	البريطاني
7. اسم منسق البرنامج	أ. د. حسين علي بدران
8. تاريخ إعداد الوصف	2021/10/2

9. أهداف البرنامج الأكاديمي:

1- إعداد كوادر مؤهلة للإسهام في خدمة التنمية والتطوير الشامل الذي ينشده ويشهده العراق في شتى مجالات الحياة وذلك من خلال القدرة على شغل وظائف التخصص في القطاعات العامة والخاصة .

2- القدرة على دعم تدريس مادة الفيزياء في مؤسسات التعليم، المدارس المتوسطة والثانوية والمدارس المهنية والمعاهد التربوية والفنية المختلفة.

3- تقديم الدراسات والاستشارات في مجال الفيزياء للمؤسسات العلمية والصناعية المختلفة .

4- الإسهام في التقدم العلمي للفيزياء من خلال البحوث العلمية أو المشاركة في المؤتمرات المحلية والعربية والعالمية.

5- إثراء المكتبة العربية من خلال المساهمة في تأليف كتب الفيزياء بالعربية وترجمة العديد من الكتب العالمية في هذا المجال إلى اللغة العربية، فضلا عن تاليف الكتب العلمية باللغة العالمية.

10. مخرجات البرنامج المطلوبة وطرائق التعليم والتعلم والتقييم

أ- الاهداف المعرفية

أ1- تعليم وتوضيح الكهربائيه والمغناطيسيه

أ2- تعليم وتوضيح الطلبة البصريات

أ3- تعليم وتوضيح الطلبة الميكانيك

أ4- تعليم وتوضيح الطلبة الحراره وخواص ماده

أ5- تعليم وتوضيح الطلبة الصوت

أ6- تعليم وتوضيح الطلبة الفيزياء الذريه

أ7- تعليم وتوضيح الطلبة الالكترونيات

أ8- تعليم وتوضيح الطلبة الميكانيك المتقدم

أ9- تعليم وتوضيح الطلبة الثرموداينمك

أ10- تعليم وتوضيح الطلبة الفيزياء الكميه

أ11- تعليم وتوضيح الطلبة الليزر

أ12- تعليم وتوضيح الطلبة التلوث البيئي

ب – الأهداف المهاراتية الخاصة بالبرنامج

ب 1 – اجراء التجارب العملية في المختبرات العلمية وحسب كل اختصاص.

ب 2 – اكتساب الطالب المهارة العلمية في اجراء التجارب العلمية.

ب 3 - اكتساب الطالب الخبرة العملية في اجراء التجارب العلمية وكيفية معالجة الاخطاء اثناء التجربة.

ب 4- اكتساب الطالب المهارة والخبرة العملية في تحليل ومناقشة نتائج التجارب العملية بعد انتهاء كل تجربة.

ب 5- مشاهدة وتطبيق طلبة المرحلة المنتهية في المدارس المتوسطة والثانوية.

طرائق التعليم والتعلم

1- المحاضرات النظرية حسب كل اختصاص.

2- استخدام شاشة العرض لالقاء المحاضرات وحسب كل اختصاص.

3- توضيح التجارب العلمية نظري وعملي.

4- مشاريع التخرج لطلبة المرحلة المنتهية ومناقشتها.

5- طرق المجاميع التعليمية الصغيرة.

6- مشاريع التخرج لطلبة المرحلة المنتهية.

7- السفرات العلمية الى مواقع العمل الواقعية والاطلاع على اهم المشاكل والتطبيقات في الفيزياء ضمن واقع العملي الفعلي.

طرائق التقييم
1- امتحانات تحريرية اسبوعية . 2- اسئلة اثناء المحاضرة. 3- امتحانات تحريرية فصلية. 4- امتحانات تحريرية نهائية. 5- كتابة التقارير العلمية. 6- الامتحانات السريعة Quiz. 7- الواجبات البيتية. 8- لجان مناقشة مشاريع التخرج لطلبة المرحلة المنتهية.

ج -المهارات العامة والتأهيلية المنقولة (المهارات الأخرى المتعلقة بقابلية التوظيف والتطور الشخصي).

ج 1- مشاريع بحوث طلبة المرحلة المنتهية النظرية.

ج 2- مشاريع بحوث طلبة المرحلة المنتهية العملية.

ج 3- المشاهدة والتطبيق في المدارس الثانوية والمتوسطة كمدرسي مادة الفيزياء.

طرائق التعليم والتعلم
1- اختيار موضوع لمشروع بحث التخرج. 2- تعلم الطلبة كيفية البحث عن موضوع بحث التخرج من المصادر المكتبية او من شبكة الانترنيت وتحديد ماهو مفيد علميا لكتابة البحث. 3- المشاهدة في المدارس الثانوية والمتوسطة اثناء فترة الدراسة في الفصل الاول لطلبة المرحلة المنتهية. 4- تطبيق طلبة المرحلة المنتهية كمدرسين في المدارس الثانوية والمتوسطة لتدريس مادة الكيمياء.

طرائق التقييم
1- لجان مناقشة مشاريع بحوث التخرج النظرية لطلبة المرحلة المنتهية وحسب كل اختصاص. 2- لجنة مناقشة مشاريع بحوث التخرج العملية لطلبة المرحلة المنتهية. 3- الاشراف العلمي لطلبة المرحلة المنتهية اثناء فترة التطبيق في المدارس كمدرسي مادة الفيزياء. 4- الاشراف التربوي لطلبة المرحلة المنتهية اثناء فترة التطبيق في المدارس كمدرسي مادة الفيزياء.

11.بنية البرنامج

المرحلة الاولى

عدد الوحدات	المادة
6	كهربائه ومغناطيسيه
6	الميكانيك
4	الحراره
2	الحاسبات
4	الرياضيات
4	اللغة العربية
4	علم النفس التربوي
2	حقوق انسان
4	اسس تربية

المرحلة الثانية

عدد الوحدات	المادة
6	كهربائه ومغناطيسيه
4	الصوت والحركه الموجيه
6	البصريات
4	الرياضيات
2	الحاسبات
4	علم النفس النمو
4	ادارة واشراف تربوي
4	اللغه الانكليزيه
4	الفلك
4	منهج البحث

المرحلة الثالثة

عدد الوحدات	المادة
6	الذريه
6	الالكترونيات
4	الدوال العقديه
4	الميكانيك التحليلي
4	الثرموداينمك
4	الاختياري (أنواء جويه)
4	ارشاد وصحة نفسية
4	مناهج وطرائق تدريس

المرحلة الرابعة

عدد الوحدات	المادة
4	الكهرومغناطيسيه
4	الحاله الصلبه
4	الليزر
4	الكمي
6	النوويه
4	قياس وتقويم
4	تطبيق ومشاهدة والتربيه العمليه
4	مشروع البحث
2	مختبر تعليمي

12.معيار القبول (وضع الأنظمة المتعلقة بالالتحاق بالكلية أو المعهد)
أولا شروط القبول في الكلية: 1-اعتماد شروط القبول للطلا ب وفق لوائح وزارة التعليم العالي والبحث العلمي (القبول المركزي) 2-أن تجتاز بنجاح أي اختبار خاص أو مقابلة شخصية يراها مجلس الكلية او الجامعة. 3-أن يكون لائق طبيا للتخصص المتقدم اليه. ثانيا شروط القبول في القسم العلمي: 1-اختيار رغبة الطالب من أكثر من رغبة مرتب حسب الأفضلية. 2-معدل القبول في الثانوية العامة. 3-معدل مقرر القسم الذي يرغب فيه الطالب بالدراسة. 4-الطاقة الاستيعابية للقسم العلمي.
13.أهم مصادر المعلومات عن البرنامج
1- احتياجات المدارس الثانوية والمتوسطة لاختصاص مادةالفيزياء. 2- التوجهات المحلية. 3- التوجهات الصناعية والاقتصادية. 4 - الدراسات والاستبيانات. 5 - الندوات وورش العمل التخصصية مع الجهات المستفيدة

مخطط مهارات المنهج																							
يرجى وضع اشارة في المربعات المقابلة لمخرجات التعلم الفردية من البرنامج الخاضعة للتقييم																							
				مخرجات التعلم المطلوبة من البرنامج																			
السنة / المستوى	رمز المقرر	اسم المقرر	أساسي أم اختياري	الأهداف المعرفية								الأهداف المهاراتية الخاصة بالبرنامج				الأهداف الوجدانية والقيمية				المهارات العامة والتأهيلية المنقولة(المهارات الأخرى المتعلقة بقابلية التوظيف والتطور الشخصي)			
				أ1	أ2	أ3	أ4	ب1	ب2	ب3	ب4	ج1	ج2	ج3	ج4	د1	د2	د3	د4				

Republic of Iraq
Ministry of Higher Education & Scientific Research
Supervision and Scientific Evaluation Directorate
Quality Assurance and Academic Accreditation

Academic Program Specification Form For The Academic

Universitiy : Basrah
College : College of Education of Pure Science
Department : Chemistry
Date Of Form Completion : 2/10/2021

Dean's Name	Dean's Assistant for Scientific Affairs	Head of Department
Prof Dr.	Prof. Dr.	Prof. Dr.
Falih Kudhair	AbdulSatar Jaber	Jabbar Mansoor khalaf
Date: 2/10/2021	Date: 2/10/2021	Date: 2/10/2021
Signature:	Signature:	Signature:

Quality Assurance and University Performance Manager
Assis. Prof. Dr. Nadia Ashoor
Date: 2/10/2021
Signature:

PROGRAMME SPECIFICATION

The physics department was founded in 1975-1976 and was a part with mathematic in one department and physics department was independent department since 1982-1983, and it aims at qualifying its graduates to teach at Iraqi Secondary Schools. The department grant is graduates the degree of Bachelor in physics. The graduates are also qualified to teach at higher studies programs and work in physics labs. Its Staff members translate and write and edit scientific books as well as contribute research works to the scientific journals published by the college and the university as well as international institutions.

1. Teaching Institution	University of Basrah
2. University Department/Centre	Physics
3. Program Title	Physics
4. Title of Final Award	Bachelor
5. Modes of Attendance offered	4 year
6. Accreditation	
7. Other external influences	
8. Date of production/revision of this specification	
9. Aims of the Program	

In every year there is a scientific plan design by the chairman of physics department, which is use for full rebuild the department and repair un-build and includes all the department branches such study halls and laboratories to develop it with new techniques and instrumentals for undergraduate and postgraduate teaching and experiments like other universities in the world especially in USA, China, India,

Russian and UK. The chairman of university of Basrah, dean of college of education for pure sciences, chairman of physics department and the academics staff are cooperate together to success this scientific plan, research and education process in physics department as well as accelerate the development to reach a high quality of science development, graduate scientific, and education students.

The scientific plan is re-new in every year and includes the bellow:

1- **The students:** show the number of acceptance and graduated students (male and female) for undergraduate and postgraduate in every year.
2- **Academic staffs**: the academic staffs are distribution depends on the academics certificate, specialist and title as professor, assistant professor, lecturer and assistant lecturer (male and female) and re-new in every year by adding or moving academic name, certificate or title as showing in table 0.1.
3- **Scientific research**: the physics department is suffering of poor physical materials, instrumentals and financial supporting to success the scientific research. Every academic is design his/her scientific research in every year and many difficulties prevent to finish the research successfully so we suggest to give a scientific research financial grant to every academic in every year to support his/her scientific research successfully and the scientific research should be useful for developing the country people, industrials and universities, this way will pave the science in the Iraqi universities as other world development universities
4- **Scientific Seminars:** in every year the academic staffs give a seminar to the physics department staffs in the important and development sciences, depends on the academics specialist and interests and also the postgraduate students.
5- **Scientific conferences and workshops:** the scientific conferences and workshops in/out of Iraq are very important to share the development of

sciences and require a high financial supporting from the ministry of higher education and scientific researches as well as growth of fast development and academic skills in the universities, the poor financial supporting is prevent in held the scientific conferences and workshops in every year, and only the education conferences can be held because of less financial support, so we hope in the near future get a financial support to held the scientific conferences and workshops.

6- **The scientific activities:** the academic staffs are active in their researches and teaching, therefore some academics design, write and print new books (Ed book) and translation books for undergraduate and postgraduate students, includes the new sciences development in the world, and the department staffs always ready to a scientific collaborative, analysis with all the government organizations, universities and foundations. And also in 2013-2014,2014-2015 , 2015-2016 and 2017- to 2019 the department holds many scientific courses to teach the education teachers related to ministry of education in how develop their scientific skills.

7- **The scientific evaluation:** every year there is few academics get new evaluation and title for his/her active researches and this depends on the evaluation roles system in the ministry of higher education and scientific research. Before the department academics and postgraduate students send to abroad their samples to identify it and now there are new scientific instruments arrived to physics department to develop the scientific researches such, Thin films/Germany; Electronic/quantum/ USA; laser/ USA; FLOURENCES/USA,

10. Learning Outcomes, Teaching, Learning and Assessment Methods

A. Knowledge and Understanding

A1. Developing and accomplishing departmental missions and objectives within those of the university; establishing departmental policies; conducting departmental meetings; involving faculty members and students in departmental.

A2. administering departmental facilities; hiring, decision making and activities supervising, evaluating staff personnel (secretaries, laboratory assistants); establishing file and record systems (faculty, students, courses, academic data, correspondence); maintaining equipment and other department properties; requisitioning supplies; ordering textbooks.

A3. Establishing departmental degree programs and curricula; evaluating, updating and improving program curricula, and the enforcing the quality of instruction.

A4. Providing professional leadership and setting an example in the department; demonstrating professional competence in teaching, research, and other professional activities; participating in professional associations and community service, setting academic standards; preparing term schedules of courses.

A5. Recruiting and orienting new faculty members; supporting and encouraging high performance in teaching, research, conference attendance, seminars, workshops, and other professional activities.

A6. Enforcing faculty responsibilities and protecting faculty rights; evaluating faculty members and making documented recommendations to the dean for them.

A7. Facilitating a constructive environment to consolidate the program teaching and learning process; Curricular and career advising of students; Responding to student grievances and complaints; Certifying students for graduation.

A8. Arranging meetings with faculty to decide on further steps to improve the program; Managing the essential funds for laboratory equipment, day-to-day

functioning, other department social activities; Executing the physics Program, alteration, and improvement proposed by program constituencies.

A9. Conveying university policies and actions to the department, representing the department in the college, the university and all external agencies and communicating departmental programs and activities to students.

B. Subject-specific skills

B1. Solid state Physics

B2. Laser Physics

B3. Quantum Physics

B4. Electronic Physics

B5. Nuclear physics.

B6.Optics

B7. Polymer and thin films

Teaching and Learning Methods:

It is undeniable that applying experiment as a teaching method to teach Physics is useful and it is able to improve both concept and students skills, but the way of carrying out the experiment and the degree of student's engagement during the experiment.

Assessment methods:

Methods will vary depending on the learning outcomes to be measured. Direct methods are when students demonstrate that they have achieved a learning outcome or objective. Indirect methods are when students (or others) report perceptions of how well students have achieved an objective or outcome. Course evaluation through conducting exams, quizzes, assignments, projects, reports for the theoretical and practical lessons.

1. Pre-assessment or diagnostic assessment.
2. Formative assessment.

3. Summative assessment.

4. Confirmative assessment.

5. Norm-referenced assessment.

6. Criterion-referenced assessment.

C. Thinking Skills

Thinking skills are the mental activities you use to process information, make connections, make decisions, and create new ideas. Use our thinking skills when we try to make sense of experiences, solve problems, make decisions, ask questions, make plans, or organize information in several ways: **C1**. Analysis

C2. Interpretation

C3. Inference,

C4. Explanation,

C5. Self-regulation,

C6. Open-mindedness,

C7. Problem-solving.

D. General and Transferable Skills (other skills relevant to employability and personal development)

What are Transferable Skills:

As a graduate searching for employment, you will likely come across the term transferable skills and wonder what's meant by this. This is a specific set of skills that don't belong to a particular niche, industry or job; they are general skills that can be transferred between jobs, departments and industries (hence the name). Employers often value these skills because they can be used in so many ways in the workplace. Transferable skills are those that you develop as you progress through employment, education or training. Communication, problem solving and teamwork are all examples of transferable skills because they can be used in any employed role, your education or vocational training. As such, it is important that you emphasis your transferable skills throughout your application documents and during your interview.

What is the importance of Transferable Skills:

If you want to secure a graduate opportunity, you are going to have to demonstrate a specific set of skills needed for the role. Some of these skills will be specific to the industry while others (transferable skills) are those that you can build on and develop throughout your career.

Transferable skills tend to bring the following benefits for candidates and employers:

- **Flexibility**: In an increasingly competitive job market, companies want to recruit employees who can diversify and complete multiple tasks and roles. When you have a diverse skill set, this will set you apart from the other applicants and shows you have greater flexibility.
- **Diversity**: The more transferable skills you have, the more diversity you can offer to a potential employer. The experiences that you have had during your studies, work experience or academic projects have all allowed you to develop a range of skills, many of which can be put to good use in any role.
- **Portability**: The nature of transferable skills means they can be taken with you when you move jobs. As you progress, the skills that you currently have will improve and you will also gain new ones too.

- **Employability**: Even if you have very little work experience, building a strong CV around your transferable skills will strengthen your chances of success. Although you may not have direct work experience, these transferable skills will demonstrate that you can adapt to new demands. There are 10 top Transferable Skills for graduates:

  D1. Business Strategy

  D2. Leadership and Team Management

  D3. Problem Solving

  D4. Teamwork Ability

  D5. Data Analysis

  D6. Communication Skills

  D7. Time Management

  D8. Work Ethic

  D9. Commercial Awareness

  D10. Listening and Providing Feedback

Teaching and Learning Methods

1- Planning and organization (or 'time management') skills.
2- Presentation skills.
3- Leadership skills.
4- Communication skills.
5- Resourcefulness and creative problem-solving.
6- Attention to detail.
7- Independent and collaborative working.
8- Student learning support.

Assessment Methods

There are numerous ways of identifying your transferable skills: Job profile searches, self-analysis, and self-assessments.

1- Job Search Profiles. Doing a job profile search can be effective if you're unsure which career path to follow.
2- Self-Analysis.
3- Taking an Assessment

13. Personal Development Planning

Personal development planning (PDP) is the process of creating an action plan based on awareness, values, reflection, goal-setting and planning for personal development within the context of a career, education, relationship or for self-improvement. PDP provides a framework that will you identify the areas of their strengths and weaknesses and come up with a guide that will optimize and capitalize on their existing skills and capabilities. When you create your personal development plan, it can provide you with that time for self-reflection. There are several different topics within the personal development world, but they all seem to fall under five major categories:

1- Mental.

2- Social.

3- Spiritual.

4- Emotional.

5- Physical.

Improve Your Personal Development through:

1- Read about what you want to improve.
2- Find a mentor.
3- Reflect at the end of each day.
4- Create a strong practice regimen.
5- Find others to push you and train with.
6- Create a reward/punishment system.
7- Stay honest with yourself.

14. Admission criteria

Criterion 1 (Students): Admission Process and Enrollment

Students are admissible to the college of education pure sciences according to a central admission process called (grades comparison) managed by the Iraqi Ministry of Higher Education and Scientific Research / Studies, Planning, and Prosecution Office / Central Admission Department. The accepted students are coming from:

1. High school graduates (scientific disciplines only).

2. Institutions graduates (only who are in top 25% rank).

3. Industrial technical secondary schools (only who are in top 5% rank).

4. Distinguished employees in governmental offices who are originally institutions graduates.

After the names of the accepted students are announced, the registration committee which contains at least ten members including the dean's assistant has only ten days to meet the accepted students and to register them at the college. They are distributed again according to their high school grades on the five departments in the college of education pure sciences (biology, chemistry, physic, computer, and mathematics) departments.

Evaluating Students' Performance

The students of college of engineering are evaluated using the following means:

1. Daily, monthly, semester, and final exams.
2. Their laboratories reports.
3. Assignments.
4. Senior year project.
5. Summer industrial training reports.

Advising and Guidance

During the past years, the physics department as well as the college of education pure sciences had an educational advising scheme where one or two advisors were assigned to give advice to one level of study (1st, 2nd, 3rd, or 4th) year. Starting from 2015-2016, the department and the college have the intention to apply a new scheme of advising with the following steps:

1. The chairman of the department distributes the students on the selected faculty members (advisors) such as each advisor is assigned a number of advisees from the same that the faculty member teaches. Each month the advisor meets her/his assigned advisees according to a pre-scheduled appointments.

2. Each advisor delivers her/his monthly report to the chairman who is responsible of arranging the work of the advisors and gives recommendations of solving any problems that may face both the advisors and the students.

3. These appointments can be classified as:

a. Evaluation meeting: assess the student's readiness and abilities and accordingly determine the best advising approach to follow.

b. Diagnostic meeting: usually is used to make tests and answering questions to reach an accurate diagnosis in order to lay out the work plan of advising.

c. Guidance/Treatment meeting: where the treatment is applied according to the plan set in the previous meeting. This treatment depends a lot on the skills and abilities of the advisor.

Graduation Requirements

In the Physics department, the student has to complete 152 credit hours in order to get a Bachelor of Science degree; these credit hours are divided across four years of study as:

For the 1st year:

1. 22/38 credits (57.89%) are of physics courses requirements.
2. 12/38 credits (31.57%) are of College courses requirements.
3. 4/38 credits (10.52%) are of university courses requirements.

For the 2nd year:

1. 30/40 credits (75%) are of physics courses requirements.
2. 6/40 credits (15%) are of College courses requirements.
3. 4/40 credits (10%) are of university courses requirements.

For the 3rd year:

1. 32/36 credits (88.88%) are of physics courses requirements.
2. 4/36 credits (11.11%) are of College courses requirements.
3. 0/36 credits (0%) are of university courses requirements.

For the 4th year:

1. 36/38 credits (94.73%) are of physics courses requirements.
2. 2/38 credits (5.26%) are of College courses requirements.
3. 0/38 credits (0%) are of university courses requirements.

Overall percentile during four years:

1. 120/152 credits (78.94%) are of physics courses requirements.
2. 24/152 credits (15.78%) are of College courses requirements.
3. 8/152 credits (5.26%) are of university courses requirements.

The physics department is started to accept postgraduate students since 1986-1987 for master and 1994-1995 for doctoral. Also there are several programs granted to physics department for such as PhD student's fellowship, research fellowship, teacher training program, graduated fellowship students returned to Iraq and started their working at the department, and international and local published papers.

15. Key sources of information about the program

The physics Department is part of the campus of the college of education pure sciences in Qarmat Ali district, north of Basrah- Basrah, Iraq. The department is a two-story building that incorporates, in it, offices for the faculty members and the supporting staff together with classrooms and laboratories offices. The head of the physics department is the most pivotal of all positions concerned with the instructional development. The policies of the college and university delegate the prime responsibility of the department daily operation to the head. The chairman is thus, assigned the task of running and managing the department. As the executive officer, the chairman is responsible to both the dean of the college of education pure sciences and the department. It is the head who maintains daily contacts with the administration, with faculty and with students. It is in this last context where the chairman has to ensure that the department's mission and educational objectives are met. Physics department will be ranked in top of physics departments in Iraq in teaching, scientific research, and community service. Within the context of the college of education pure sciences goals and to keep abreast of the physics fields progress, the physics department wants to meet the emerging need to the specialized physicists who are capable of doing researches in sciences related to physics in a way that enables the government and private sector agencies to solve the problems they face. The Program Educational Objectives (PEOs) clearly reflect the professional expectations from the graduates of the physics department and prepare them to meet that challenges. Physics academic program is in effect, the superposition of a set of courses, somehow, linked together to achieve program outcome. This means that courses in any academic program represent the building blocks of that program. Assessment of the program would only be possible if the course learning outcomes are mapped to the program outcomes. The Course learning outcomes of individual program courses are listed in the detailed course syllabus which are prepared by faculty teaching that particular course and submitted to the student in the beginning of the year. Each year, immediately after tallying the

final grades of all courses, mapping between the courses and program outcomes is also establishes. The main objective of the program outcomes, POs, and program Educational Objectives, PEOs, is to measure the level of achievement of the curricular requirement of the department in preparing the graduates to meet the challenges presented to them by the fascinating physics industry.

Curriculum Skills Map

please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed

Programme Learning Outcomes

Year / Level	Course Code	Course Title	Core (C) Title or Option (O)	Knowledge and understanding				Subject-specific skills				Thinking Skills				General and Transferable Skills (or) Other skills relevant to employability and personal development			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4