

Graduate profile with Intended Learning Outcomes (ILOs) of Bachelor of Science Honours
Degree Program in Physical Science.

Faculty of Science, University of Kelaniya.

<p>Profile: Bachelor of Science Honours degree holder of the Faculty of Science of the University of Kelaniya will be an enthusiastic, honest, responsible, emotionally mature, assertive, self-motivated life-long learner with;</p>	<p>ILOs: After completing the prescribed study programme, the graduates of Bachelor of Science Honours should be in a position to;</p>
<p>Comprehensive knowledge on the principles, concepts and practices of the areas in physical science.</p>	<ul style="list-style-type: none"> • Demonstrate the comprehensive knowledge and understanding of physical sciences and specialized knowledge in the field of Mathematics/ Mathematical Physics/ Physics/ Statistics/ Computer Science/ Information Technology/ Chemistry and their concepts, principles and practices therein. • Demonstrate hands on experience in laboratory techniques related to Mathematics, Mathematical Physics, Physics, Statistics, Computer Science, Information Technology and Chemistry
<p>Ability to aware and identify of current, complex and controversial issues in the subject area, and apply the knowledge and experience to analyze and propose appropriate solutions.</p>	<ul style="list-style-type: none"> • Apply advanced knowledge in a selected study area: Mathematics, Mathematical Physics, Physics, Statistics, Computer Science, IT technology and Chemistry, to exploit real problems • Obtain evidences by reviewing scientific literature to formulate, design and conduct scientific experiments to test hypotheses • Employ independent thinking to critically analyze quantitative and qualitative data to make justifiable decisions or arguments • Apply the existing knowledge innovatively and productively to formulate appropriate solutions
<p>Ability to follow scientific methods including critical thinking, logical reasoning and formulation of hypothesizes, to design and conduct independent research for the generation of new knowledge contributing to the betterment of the world.</p>	<ul style="list-style-type: none"> • Apply principles on Mathematics/ Mathematical Physics/ Physics/ Statistics/ Computer Science/ IT technology/ Chemistry in different contexts across the discipline to design and conduct independent research leading to generation of knowledge itself and their applications.
<p>Proficiency to use ICT or any relevant technologies appropriately to identify, access, organize, process, evaluate and synthesize quantitative and qualitative information;</p>	<ul style="list-style-type: none"> • obtain information, organized, analyze and use them effectively using ICT and other relevant technologies • adopt emerging technologies leading to better and efficient solution

<p>interpersonal skills and strong adaptability to new academic as well as social environments.</p>	<ul style="list-style-type: none"> • Ability to work in diverse academic and social environments
<p>Ability to communicate his/her own ideas and views effectively and convincingly to diverse audience, through the use of skills related to ICT and information literacy.</p>	<ul style="list-style-type: none"> • Effectively communicate ideas and views to both scientific and laymen communities.
<p>Ethical conduct, professional integrity, punctuality and managerial entrepreneurial skills.</p>	<ul style="list-style-type: none"> • Demonstrate intellectual integrity and scientific ethics • Identify individual and collective goals and responsibilities and perform accordingly with ethical conducts • Ability of planning, decision making, delegation and managing tasks independently and collectively
<p>The ability to take the leadership and initiatives in complying and social responsibility in tasks performed</p>	<ul style="list-style-type: none"> • Recognize and respect views and opinions of peers • Demonstrate the leadership and self-motivation towards professional activates and their continuous development
<p>The ability to visionize the future and set goals appropriately, by identifying the trends and demands, while lifelong updating of the knowledge.</p>	<ul style="list-style-type: none"> • Clearly identify future socio economical demands and setting the sustainable goals accordingly • Further develop knowledge, competencies, skills and assume major responsibilities with confidence that require reaching the goals efficiently.