جـــامـــعة بـــنـــها
كلـيـــة الهنـــدســـة بـشبـــرا
برنـامج هنـــدســـة الطاقة و الطاقة المستدامة

مواصفات خريج البرنـامج

إعتماد مجلس إدارة البرنامج رقم (85) بتاريخ 6-1- 2021 و المصادقة بمجلس كلية رقم (4) بتاريخ 19-1-2021

General attributes of the engineer according to NARS 2018

The Engineering Graduate must:

1. Master a wide spectrum of engineering knowledge and specialized skills and can apply acquired knowledge using theories and abstract thinking in real life situations.
2. Apply analytic critical and systemic thinking to identify, diagnose and solve engineering problems with a wide range of complexity and variation.
3. Behave professionally and adhere to engineering ethics and standards;
4. Work in and lead a heterogeneous team of professionals from different engineering specialties and assume responsibility for own and team performance;
5. Recognize his/her role in promoting the engineering field and contribute in the development of the profession and the community;
6. Value the importance of the environment, both physical and natural, and work to promote sustainability principles;
7. Use techniques, skills and modern engineering tools necessary for engineering practice;
8. Assume full responsibility for own learning and self-development, engage in lifelong learning and demonstrate the capacity to engage in post- graduate and research studies;
9. Communicate effectively using different modes, tools and languages with various audiences; to deal with academic/professional challenges in a critical and creative manner;
10. Demonstrate leadership qualities, business administration and entrepreneurial skills.

In addition to the general attributes of the engineer according to NARS 2018, The ESE engineer should be able to:

11. Demonstrate increased depth and coverage of knowledge and understanding of energy and sustainable energy technologies and resources management;

12. Carry out preliminary designs of fluid transmission and energy and power systems, investigate their performance and solve their essential operational problems;

13. Use energy efficiently, operate and maintain energy systems;

14. Apply and integrate knowledge, understanding and skills of different subjects and available computer software to solve real problems in industries and power stations;

15. Lead or supervise a group of engineers or technicians and other work force;

16. Design, operate and maintain sustainable energy systems;

17. Evaluate the sustainability and environmental issues related to energy systems and apply industrial safety;

18. Use the computer graphics for design, communication and visualization.