



University of Energy and
Natural Resources, Sunyani

2014/2015
**Admission Brochure
for Undergraduate Programmes**

General Information about the University

The University of Energy and Natural Resources (UENR) was established by an Act of Parliament, Act 830 in December 31, 2011. The University is a public-funded national institution which seeks to provide leadership in science, engineering, technology and management of energy and natural resources and be a centre of excellence in these critical areas. The University approaches its programmes and research emphasizing interdisciplinary collaboration and taking into account, areas such as economics, law and policy, management, science, technology and engineering as well as social and political issues affecting energy and natural resources.

Vision Statement

To become a world class institution for generating, advancing and applying knowledge in energy and natural resource sciences.

Mission Statement

To promote the development of human resources and skills required to solve critical energy and natural resources challenges of society and undertake interdisciplinary academic, research, and outreach programmes in engineering, science, economics and environmental policy.

Core Values

In order to realize its vision and mission, the University of Energy and Natural Resources shall be guided by the following core values:

- i. Promote innovation, creativity, freedom of thought and creative expression;
- ii. Operate with integrity, commitment and transparency;
- iii. Promote conservation of energy and the environment;
- iv. Establish partnership with stakeholders in skills and knowledge generation and application;
Respond to the needs of our students and partner communities;
- vi. Promote and incorporate sustainability concepts across all University

Courses/programmes as well as exemplifying the sustainability culture of staff, students and alumni.

Schools

Currently the University has the following Schools:

- i. School of Engineering
- ii. School of Sciences
- iii. School of Natural Resources
- iv. School of Agriculture and Technology

Programmes on Offer for 2014/2015 Academic Year

School of Engineering

- BSc Renewable Energy Engineering
- BSc Environmental Engineering
- BSc Electrical and Electronic Engineering
- BSc Mechanical Engineering
- BSc Agricultural Engineering
- BSc Computer Engineering
- BSc Petroleum Engineering

School of Sciences

- BSc Computer Science
- BSc Mathematics
- BSc Statistics
- BSc Actuarial Science
- BSc Information Technology
- BSc Chemistry

School of Natural Resources

- BSc Natural Resources with options in:
 - » Forest Resource Management
 - » Wildlife and Range Management
 - » Ecotourism
 - » Social Forestry
 - » Wood Science and Forest Products

- » Land Reclamation and Restoration
- » Fisheries and Aquaculture
- BSc Hospitality Management
- BSc Fire and Disaster Management
- BSc Resource Enterprise and Entrepreneurship

School of Agriculture and Technology

- BSc Agriculture with options in:
 - » Animal Production
 - » Crop Production
 - » Horticulture
- BSc Post-Harvest Technology
- BSc Agribusiness

General Admission Requirements

Entry Routes

The University has four entry routes:

- Entry by means of SSSCE/WASSCE (Entry at level 100)
- Foreign student (Entry at level 100)
- Entry by means of mature students examination (Entry at level 100)
- Entry by means of professional certificates and tertiary level diplomas depending on assessment of the diploma and performance at interview.

The general admission requirements for the various entry routes are as follows:

Minimum Entry Requirements for First Degree Programmes

Senior Secondary School Certificate Examination (SSSCE) and West African Senior School Certificate Examination (WASSCE)

To be admitted to any First Degree Programme, SSSCE/WASSCE candidates must possess **three (3)** credit passes in three core subjects and **three (3)** credit passes in subjects relevant to the programme of study.

SSSCE Applicants

Candidates must possess credit passes (A-D) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science (for science related programmes)/Social Studies (for non-science related programmes) in addition to **three (3)** relevant elective subjects.

WASSCE Applicants

Candidates must possess credit passes (A1-C6) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science (for science related programmes)/Social Studies (for non-science related programmes) in addition to **three (3)** relevant elective subjects.

HND Applicants

HND applicants must have graduated with at least a **2nd Class Lower Division** and in addition must have acquired a 2-year Post-HND qualification working experience.

Professional and Post-Diploma Applicants

Candidates in this category must possess:

- A Diploma or Higher National Diploma or its equivalence in a relevant programme from a recognized institution
- Must pass interview conducted by the University In addition to the general admission requirements above, Schools and Departments may have their specific requirements.

Other Qualifications

Other qualifications acceptable for consideration for admission include International Baccalaureate (IB), IGCSE, GCSE, American Grade 13 examinations and other external qualifications which have equivalences to the WASSCE/SSSCE and the GCE (A Levels). International students whose first language is not English are required to have one of the following English language qualifications before they can register on any programme. However, applicants from English speaking countries may have these requirements waived.

- IELTS 6.0 (no less than 5.0 in any element)
- TOEFL paper-based 550 (no less than 4.0 in TWE)
- TOEFL IBT 79 (no less than 17 in any element)

Foreign Applicants

Candidates must possess any of the above qualifications or their equivalent from accredited/recognised institutions.

Mature Students' Entry

Mature students entry avenues to tertiary education provide opportunities for people who could not do so earlier in their lives to further their education at the tertiary level after some years in the workplace (preferably, the formal workplace). The applicant must:

- be at least 25 years old by 1st September of the academic year the applicant wants to enroll
- show proof of age with birth certificate or any legitimate documentary proof of birth date which is at least 5 years old at the time of application;
- provide introductory letter from employer or show any other proof of employment;
- pass Mature Students' Entrance Examinations conducted by UENR (English Language, Mathematics and an Aptitude Test). In lieu of such examinations, the applicant should show proof of credit passes in English and Mathematics in SSSCE/WASSCE or any other nationally recognized standard High School level examinations.

For qualifications from countries outside WAEC, NAB should be consulted.

Mature student applicants must pass UENR entrance examination and/or interview.

School of Engineering

BSc Renewable Energy Engineering

SSSCE/WASSCE Applicants

To be admitted to Renewable Energy Engineering Degree programme, SSSCE Candidates should have Credit Passes (A-D) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** elective science subjects: Physics, Elective Mathematics, Chemistry/Applied Electricity/Applied Electronics/Technical Drawing.

WASSCE Candidates should have Credit Passes (A1-C6) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three(3)** Elective Science subjects; Physics, Elective Mathematics, Chemistry/Applied Electricity/Applied Electronics/Technical Drawing.

Professional and Post-Diploma Applicants

Candidates in this category must possess:

- A Diploma or Higher National Diploma (HND) or its equivalence in a relevant programme from a recognized institution (e.g. electrical, telecommunication, etc);
- Must pass an interview;
- Two years post qualification working experience; Candidates with HND/relevant professional or diploma certificates and who obtained First Class or Second Class Upper Honours will enter at level 300. Those with Second Class Lower Honours or Pass will enter at level 200.

BSc Environmental Engineering

SSSCE/WASSCE Applicants

To be admitted to Environmental Engineering Degree programme, SSSCE Candidates should have Credit Passes (A-D) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** elective science subjects as follows: Physics, Elective Mathematics, Chemistry/Biology/Technical Drawing.

WASSCE Candidates should have Credit Passes (A1-C6) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** Elective Science subjects; Physics, Elective Mathematics, Chemistry/Biology/Technical Drawing.

Professional and Post-Diploma Applicants

Candidates in this category must possess:

- A Diploma or Higher National Diploma (HND) or its equivalence in a relevant programme from a recognised institution (e.g. electrical, telecommunication, etc);
- Must pass an interview;
- Two years post qualification working experience;
Candidates with HND/relevant professional or diploma certificates and who obtained First Class or Second Class Upper Honours will enter at level 300. Those with Second Class Lower Honours or Pass will enter at level 200.

BSc Mechanical Engineering

SSSCE/WASSCE Applicants

To be admitted to Mechanical Engineering Degree programme, SSSCE Candidates should have Credit Passes (A-D) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** elective science subjects: Elective Mathematics, Physics and Chemistry/Technical Drawing/Auto Mechanics.

WASSCE Candidates should have Credit Passes (A1-C6) in **six (6)** subjects comprising **three(3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** elective science subjects; Elective Mathematics, Physics and Chemistry/Technical Drawing/ Auto Mechanics/ Metal Work.

Professional and Post-Diploma Applicants

Candidates in this category must possess:

- A Diploma or Higher National diploma or its equivalence in a relevant programme from a recognized institution (e.g. electrical, chemical, mechanical, civil, material etc);
- Must pass an interview;
- Two years post qualification working experience;

Candidates with HND/relevant professional or diploma certificates and who obtained First Class or Second Class Upper Honours will enter at level 300. Those with Second Class Lower Honours or Pass will enter at level 200.

BSc Agricultural Engineering

SSSCE/WASSCE Applicants

To be admitted to Agricultural Engineering Degree programme, SSSCE Candidates should have Credit Passes (A-D) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** elective science subjects; Elective Mathematics, Physics and Chemistry/ Technical Drawing/ Auto Mechanics.

WASSCE Candidates should have Credit Passes (A1-C6) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)**

elective science subjects; Elective Mathematics, Physics and Chemistry/Technical Drawing/
Auto Mechanics/Metal Work

Professional and Post-Diploma Applicants

Candidates in this category must possess:

- A Diploma or Higher National diploma or its equivalence in a relevant programme from a recognized institution (e.g. electrical, chemical, mechanical, civil, material etc);
- Must pass an interview;
- Two years post qualification working experience;

Candidates with HND/relevant professional or diploma certificates and who obtained First Class or Second Class Upper Honours will enter at level 300. Those with Second Class Lower Honours or Pass will enter at level 200.

BSc Electrical and Electronic Engineering

SSSCE/WASSCE Applicants

To be admitted to Electrical and Electronic Engineering Degree programme, SSSCE Candidates should have Credit Passes (A-D) in **six (6)** subjects comprising **three (3)** core subjects: English Language, Mathematics and Integrated Science; and **three (3)** elective science subjects: Elective Mathematics, Physics and Chemistry/Applied Electricity/Applied Electronics/Technical Drawing.

WASSCE Candidates should have Credit Passes (A1-C6) in **six (6)** subjects comprising core subjects, including English Language, Mathematics and Integrated Science; and **three (3)** elective science subjects; Elective Mathematics and Physics/Applied Electricity/Applied Electronics/ Technical Drawing.

Professional and Post-Diploma Applicants

Candidates in this category must possess:

- A Diploma or Higher National diploma or its equivalence in a relevant programme from a recognised institution (e.g. electrical, chemical, mechanical, civil, material etc);
- Must pass an interview;
- Two years post qualification working experience; Candidates with HND/relevant

professional or diploma certificates and who obtained First Class or Second Class Upper Honours will enter at level 300. Those with Second Class Lower Honours or Pass will enter at level 200.

BSc Computer Engineering

SSSCE/WASSCE Applicants

To be admitted to Computer Engineering Degree programme, SSSCE Candidates should have Credit Passes (A-D) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** elective science subjects; Elective Mathematics, Physics and Chemistry/Applied Electronics/Technical Drawing.

WASSCE Candidates should have Credit Passes (A1-C6) in **six (6)** subjects comprising **three (3)** core subjects: English Language, Mathematics and Integrated Science; and **three (3)** elective science subjects: Elective Mathematics, Physics and Chemistry/Applied Electronics/Technical Drawing.

BSc Petroleum Engineering

SSSCE/WASSCE Applicants

To be admitted to Petroleum Engineering Degree programme, SSSCE Candidates should have Credit Passes (A-D) in **six (6)** subjects comprising **three (3)** core subjects: English Language, Mathematics and Integrated Science; and **three (3)** elective science subjects: Elective Mathematics, Physics and Chemistry/Technical Drawing.

WASSCE Candidates should have Credit Passes (A1-C6) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** elective science subjects; Elective Mathematics, Physics and Chemistry/Technical Drawing.

School of Sciences

BSc Mathematics

BSc Statistics

BSc Actuarial Science

SSSCE/WASSCE Applicants

To be admitted to any Mathematical Science degree programme, SSSCE Candidates should have Credit Passes (A-D) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** elective science/arts/business subjects including Elective or Further Mathematics or Business Mathematics.

WASSCE Candidates should have Credit Passes (A1-C6) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** elective science/arts/business subjects including Elective/Further Mathematics or Business Mathematics.

Professional and Post-Diploma Applicants

Candidates in this category must possess:

- A Diploma or Higher National Diploma (HND) or its equivalence in a relevant programme from a recognised institution (e.g. statistics, computing, accounting, engineering etc);
- Must pass an interview;
- Two years post qualification working experience; Candidates with HND/relevant professional or diploma certificates and who obtained First Class or Second Class Upper Honours will enter at level 300. Those with Second Class Lower Honours or Pass will enter at level 200.

[NB: Diploma entrants who may not have offered Elective Mathematics/Business Mathematics or Further Mathematics at WASSCE/SSSCE may be required to take some lower level courses in Mathematics].

BSc Computer Science

SSSCE/WASSCE Applicants

To be admitted to the Computer Science degree programme, SSSCE Candidates should have Credit Passes (A-D) in **six (6)** subjects comprising **three (3)** core subjects, including

English Language, Mathematics and Integrated Science; and **three (3)** elective science/Technical subjects including Elective Mathematics and Physics.

WASSCE Candidates should have Credit Passes (A1-C6) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science or Social Studies; and **three (3)** elective science/ Technical subjects including Elective Mathematics and Physics.

Professional and Post-Diploma Applicants

Candidates in this category must possess:

- A Diploma or Higher National Diploma (HND) or its equivalence in a relevant programme from a recognised institution (e.g. Computing Science, Database Administration, Network Administration/Engineering, Software Technology/Engineering, Telecommunication Engineering or any computer related programme);
- Must pass an interview;
- Two years post qualification working experience; Candidates with HND/relevant professional or diploma certificates and who obtained First Class or Second Class Upper Honours will enter at level 300. Those with Second Class Lower Honours or Pass will enter at level 200.

[NB: Diploma entrants who may not have offered Elective Mathematics/Further Mathematics and Physics/Applied Electricity at WASSCE/SSSCE may be required to take some lower level courses in Mathematics and Electronics]

BSc Information Technology

To be admitted to Information Technology degree programme, SSSCE Candidates should have Credit Passes (A-D) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** elective science/arts/business subjects including Elective or Further Mathematics or Business Mathematics.

WASSCE Candidates should have Credit Passes (A1-C6) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** elective science/arts/business subjects including Elective/Further Mathematics or Business Mathematics.

Professional and Post-Diploma Applicants

Candidates in this category must possess:

- A Diploma or Higher National Diploma (HND) or its equivalence in a relevant programme from a recognised institution (e.g. statistics, computing, accounting, engineering etc);
- Must pass an interview;
- Two years post qualification working experience;

Candidates with HND/relevant professional or diploma certificates and who obtained First Class or Second Class Upper Honours will enter at level 300. Those with Second Class Lower Honours or Pass will enter at level 200.

[NB: Diploma entrants who may not have offered Elective Mathematics/Business Mathematics of Further Mathematics at WASSCE/SSSCE may be required to take some lower level courses in Mathematics].

BSc Chemistry

To be admitted to Chemistry degree programme, SSSCE Candidates should have Credit Passes (A-D) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** elective science subjects; Chemistry, Physics, Biology/Mathematics.

WASSCE Candidates should have Credit Passes (A1-C6) in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** elective science subjects; Chemistry, Physics, Biology/Mathematics.

Professional and Post-Diploma Applicants

Candidates in this category must possess:

- A Diploma or Higher National Diploma (HND) or its equivalence in a relevant programme from a recognised institution
- Must pass an interview;
- Two years post qualification working experience;

Candidates with HND/relevant professional or diploma certificates and who obtained First Class or Second Class Upper Honours will enter at level 300. Those with Second Class Lower Honours or Pass will enter at level 200

School of Natural Resources

BSc Natural Resources

with options in:

- »Forest Resource Management
- »Wildlife and Range Management
- »Ecotourism
- »Social Forestry
- »Wood Science and Forest Product
- »Land Reclamation and Restoration
- »Fisheries and Aquaculture

SSSCE/WASSCE candidates must possess Credits Passes (A-D) and (A1- C6) respectively in **three (3)** core subjects; English Language, Core Mathematics and Integrated Science and **three (3)** elective subjects from Chemistry, Physics, Elective Mathematics, Biology/Agriculture/Forestry.

BSc Hospitality Management

SSSCE/WASSCE candidates must possess Credit Passes (A-D) and (A1- C6) respectively in **three (3)** Core subjects; English Language, Core Mathematics and Integrated Science/Social Studies in addition to any **three (3)** elective subjects from the following; Sciences, General Arts, Home Economics, Business, Agriculture and Visual Art.

BSc Fire and Disaster Management

SSSCE/WASSCE candidates must possess Credits Passes (A-D) and (A1- C6) respectively in Core English, Core Mathematics and Integrated Science and **three (3)** elective Science subjects from Physics, Elective Mathematics, Chemistry and Biology/Agriculture/Forestry

BSc Resource Enterprise and Entrepreneurship

SSSCE/WASSCE candidates must possess Credit Passes (A-D) and (A1- C6) respectively in **three (3)** Core subjects; English Language, Core Mathematics and Integrated Science/Social Studies in addition to any **three (3)** elective subjects from the following; Sciences, General Arts, Home Economics, Business, Agriculture and Visual Art.

School of Agriculture and Technology

BSc Agriculture

with options in:

- »Animal Production
- »Crop Production
- »Horticulture

SSSCE/WASSCE Applicants

SSSCE/WASSCE Candidates should have Credit Passes (A-D)/(A1-C6) respectively in six (6) subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and **three (3)** electives in the following: Biology, Chemistry and Physics, or Elective Mathematics General Agriculture/Forestry, Chemistry and Physics or Elective Mathematics

BSc Agribusiness

SSSCE/WASSCE Applicants

SSSCE/WASSCE Candidates should have Credit Passes (A-D)/(A1-C6) respectively in **six (6)** subjects comprising **three (3)** core subjects; English Language, Mathematics and Integrated Science; and any **three (3)** elective subjects in Science, General Agriculture, Business and General Arts (Economics, Geography and Elective Mathematics).

Fee-Paying Applicant

Fee-Paying Facility can be accessed when an applicant does not meet the **Competitive Requirement** and **Cut-O Points** but satisfy the Minimum Entry Requirements of Aggregate **24 (SSSCE Candidates)/36(WASSCE Candidate)** or better. Applicants who wish to take advantage of this facility should indicate when filing their Application Form.

Accommodation

The University of Energy and Natural Resources Policy requires all students admitted to the University to live in and on-Campus residence hostel for the first year. Applicants who may wish to be considered for hostel accommodation are to indicate the request on their application form. Such applicants, when admitted, would pay the appropriate Residential

Facility User Fees.