

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY  
COLLEGE OF ENGINEERING AND TECHNOLOGY (COETEC)  
REGULATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE  
DEGREE IN ENGINEERING**

**ADMISSION REQUIREMENTS**

- ENG. 1** A candidate wishing to be admitted to the College of Engineering and Technology must satisfy the minimum entrance requirements of the University.
- ENG. 2** A candidate must also satisfy departmental requirements before registering for courses in any department.
- ENG. 3** A candidate taking a degree course within the College of Engineering and Technology is required to take a combination of subjects approved by the College of Engineering and Technology. Such combination may be modified only after obtaining the consent of the Deans of relevant Schools and Chairmen of relevant departments and only within the first three weeks of the academic year.

**DURATION AND STRUCTURE OF THE PROGRAMME**

- ENG. 4** (a) The duration of study for the degree of Bachelor of Science in Engineering shall normally extend over a period of five academic years.  
(b) The academic year shall be divided into two semesters.

**COURSES**

- ENG. 5** (a) Engineering courses are taught in units. A unit is defined as the equivalent of 45 one-hour lectures spread over one semester. For this purpose two hours of tutorial or three hours of practicals are equivalent to one-hour lecture.  
(b) Also one-hour lecture is equivalent to an equivalent amount of other assigned study or practical experience or any combination of these that may be approved by the Board of the College of Engineering and Technology.
- ENG. 6** a) A candidate within the College of Engineering and Technology may take courses from the following departments:
- (i) **Civil, Construction and Environmental Engineering**
  - (ii) **Electrical and Electronic Engineering**
  - (iii) **Mechanical Engineering**
  - (iv) **Geomatic Engineering and Geospatial Information Systems**
  - (v) **Mechatronic Engineering**
  - (vi) **Biomechanical and Environmental Engineering**
  - (vii) **Telecommunication and Information Engineering**
  - (viii) **Mining and Mineral Processing Engineering**

- (b) The subjects to be studied for the Degrees of Bachelor of Science in Engineering shall be as prescribed in the;
- i) Bachelor of Science in Civil Engineering in the Department of Civil, Construction and Environmental Engineering (**accredited by Engineers' Registration Board of Kenya**),
  - ii) Bachelor of Science in Geomatic Engineering and Geospatial Information Systems in the Department of Geomatic Engineering and Geospatial Information Systems,
  - iii) Bachelor of Science in Electrical and Electronic Engineering in the Department of Electrical and Electronic Engineering (**accredited by Engineers' Registration Board of Kenya**),
  - iv) Bachelor of Science in Electronic and Computer Engineering in the Department of Electrical and Electronic Engineering,
  - v) Bachelor of Science in Telecommunication and Information Engineering in the Department of Telecommunication and Information Engineering,
  - vi) Bachelor of Science in Mechanical Engineering in the Department of Mechanical Engineering (**accredited by Engineers' Registration Board of Kenya**),
  - vii) Bachelor of Science in Mechatronic Engineering in the Department of Mechatronic Engineering (**accredited by Engineers' Registration Board of Kenya**),
  - viii) Bachelor of Science in Biomechanical and Processing Engineering in the Department of Biomechanical and Environmental Engineering,
  - ix) Bachelor of Science in Soil, Water and Environmental Engineering in the Department of Biomechanical and Environmental Engineering,
  - x) Bachelor of Science in Mining and Mineral Processing Engineering in the Department of Mining and Mineral Processing Engineering
  - xi) Bachelor of Science in Agricultural Engineering in the Department of Biomechanical and Environmental Engineering (**accredited by Engineers' Registration Board of Kenya**), and
  - xii) Bachelor of Science in Marine Engineering in the Department of Mechanical Engineering (**to be considered for accreditation by the Kenya Maritime Authority; graduates will practice in the high seas**)
- (c) A unit taught jointly between departments will be counted as a single unit.

**ENG. 7** Enrolment for units outside the College of Engineering and Technology is possible, provided it is approved by the Principal of the College of Engineering and Technology in consultation with the relevant Dean.

**ENG. 8** (a) A candidate for Bachelor of Science in Engineering in first, second, third, fourth and fifth year of study shall take a minimum of 16 units in any one year of study.

- (b) In the first year of study candidates shall take seventeen units which shall include the following three University units;
- (i) HRD 2101 Communication Skills
  - (ii) HRD 2102 Development Studies
  - (iii) SZL 2111 HIV/AIDS



- (c) A candidate shall be required to undertake practical attachment during the second, third and fourth year of study for the Bachelor of Science in Engineering and for a period of not less than (8) weeks each year, being equivalent to one unit.

**ENG. 9** A candidate shall be allowed to take one audited unit during any year of study in consultation with the department concerned. However, the audited units shall not be counted towards the classification of the degree but shall appear on the transcript.

### EXAMINATIONS

- ENG. 10** (a) Ordinary University examinations shall normally be at the end of every semester.
- (b) All units shall be examined during the semester in which they are taken except projects which shall normally be examined at the end of the second semester.
- (c) The examination pass mark in each unit shall be 40% of the total marks.
- (d) No candidate shall be allowed to sit for examinations without attending at least two thirds of the lectures and practicals.
- (e) No candidate shall be deemed to have passed in examinations unless the candidate has passed practicals.
- (f) (i) Continuous Assessments shall contribute 30% and written University examinations shall contribute 70% of the total marks; except where a course consists solely of practical work, in which case it shall be assessed 100% by continuous assessment. The continuous assessment shall consist of continuous assessment tests, coursework and/or laboratory assignments. A candidate shall satisfactorily complete such coursework/practical assignments as may be required for each course unit. The composition for continuous assessment shall be as follows:

15%	Practical/lab assignments/Class Projects
5%	Assignments
10%	Tests

Design and drawing courses will be assessed as specified in the departmental regulations.

- (ii) CATs will be administered as scheduled by the office of the Deputy Vice Chancellor (AA). Results of the same should be released and where necessary discussed with the individuals not later than fourteen (14) days from the date of the student sitting for the CAT.
- (g) Practical attachment shall be assessed and graded on pass or fail basis.

- (h) The University examinations shall consist of papers each covering one unit completed during the semester. The time allowed for each written paper in a course unit shall be two hours except in drawing which shall be three hours.
- (i) A candidate who absents himself/herself from a scheduled examination for any unit without reasonable cause shall be deemed to have failed the examination for the unit, with a score of zero.
- (j) The senate examination disciplinary committee regulations shall apply in all examination disciplinary cases.

### MODERATION OF EXAMINATION PAPERS

- (k) **Before administering any examination, questions shall be moderated by a duly recognized external examiner.**
- (l) **All the final marked scripts by the internal examiners shall be moderated by an external examiner.**
- (m) **The final marks to be awarded shall be endorsed by an external examiner.**

- ENG. 11** (a) After sitting the supplementary examinations a candidate may be allowed to carry forward a maximum of two failed units to the second, *third* and fourth years of study. However, a candidate who has failed a unit as a result of not fulfilling the coursework requirements for the unit shall not be allowed to proceed to the next year of study.
- (b) In order to be allowed to proceed to and to register for the fifth year of study a student must **have passed all the units in the first, second, third and fourth** year of study.
- (c) A candidate must pass in all the required units of the first, second, third, fourth and fifth years of study in order to qualify for the award of their respective degree as specified in ENG. 19.

**ENG. 12** Each unit shall be graded out of 100 marks and the pass mark for each unit shall be 40% of the total. The marks shall be translated into literal grades as follows:

•	<i>70% and above</i>	<i>A</i>
•	<i>60% and above but less than 70%</i>	<i>B</i>
•	<i>50% and above but less than 60%</i>	<i>C</i>
•	<i>40% and above but less than 50%</i>	<i>D</i>
•	<i>Below 40 %</i>	<i>E</i>



**ENG. 13** At the end of every academic year the Registrar's office shall prepare for each candidate a transcript in the form of literal grades for the units taken during that year.

**SUPPLEMENTARY EXAMINATIONS**

- ENG. 14**
- (a) Any examination in a unit taken by a candidate as a result of failing the unit at the first attempt is a supplementary examination.
  - (b) Supplementary examination period shall normally be at the end of a year of study in which the unit is offered subject to ENG 14(d), (e), (f), (g) and (h).
  - (c) Sitting supplementary examination in failed units shall be during the supplementary examination period or during the ordinary examination period when examination for the unit is next offered but this will be subject to ENG 14 (d), (e), (f), (g) and (h).
  - (d) A candidate who fails in any unit, up to a maximum of five units at the ordinary examination shall be required to sit supplementary examinations in all the failed units during the supplementary period immediately following the ordinary examinations in which he/she failed the units subject to ENG. 17.
  - (e) A candidate who fails a unit at the supplementary examination period shall be required to retake the examination during the next time the unit is offered at the ordinary examinations subject to ENG. 17.

**Staying Out**

- (f) A candidate who fails three, four or five units of the first, *second*, third or fourth year of study, at the supplementary examinations period shall not be allowed to proceed to the next year of study but shall be required to retake the examination in the units failed during the next time they are offered at ordinary examinations subject to ENG. 17.
- (g) A candidate who fails a supplementary examination of the fifth year of study during the supplementary examination period shall not graduate but shall be required to retake the examination during the next time the unit is offered at the ordinary examinations subject to ENG. 17.
- (h) A candidate who fails six or seven units in any year of study shall be required to retake examinations only in the failed units during the ordinary examination period when examinations for the individual units are offered. Such a candidate will not be allowed to retake examinations during the supplementary period immediately following the ordinary examinations period in which he/she failed the six or seven units.
- (i) A candidate who has failed a unit for which he/she is required to take supplementary examinations may be allowed to attend lectures for the unit and utilize other facilities upon making appropriate arrangements subject to ENG. 21. However, no marks shall be awarded for any continuous assessment taken.

- (j) A candidate who has not fulfilled the requirements for progression to the next year of study or to graduate but is required to retake some examinations shall be eligible to apply to utilize University facilities subject to ENG. 21.

**Processing**

- (k) Pending the results of the supplementary examination a candidate may be admitted into the second, third, fourth or fifth year of study but shall not continue therein unless the candidate passes the required number of units in the previous year of study. Where a candidate fails a unit evaluated wholly by continuous assessment the candidate shall be required to carry out additional work for examination during the supplementary examination period.
- (l) A pass mark of 40% and above in a supplementary paper shall be recorded as 40% and shall not include continuous assessment marks.

**SPECIAL EXAMINATIONS**

**ENG. 15** If through unavoidable circumstances such as bereavement or sickness a candidate is unable to sit for one or more examination papers, or is unable to undertake essential parts of the work for continuous assessment the candidate may, on the recommendation of the Faculty Board of Examiners, and with the approval of Senate, be permitted to take special examination, or undertake extra work for continuous assessment.

Special examinations shall be marked out of 100% and shall include continuous assessment.

**RE-ADMISSION**

- ENG. 16**
- a) A candidate may be re-admitted into an academic year on compassionate grounds, on the recommendation of the Faculty and with the approval of the Senate.
  - (b) A candidate who has been re-admitted after completing the first semester will be required to register only for the second semester, of the academic year into which he/she is re-admitted.

**DISCONTINUATION**

- ENG. 17**
- a) A candidate who fails 8 or more units, all of the same year of study, at the ordinary University examinations shall be discontinued.
  - b) A candidate who does not pass a unit after a total of four attempts shall be discontinued. In this case the four attempts shall normally be as follows
    - (i) first attempt will be at ordinary examinations
    - (ii) second attempt will be at supplementary examinations period following failure at the ordinary examinations
    - (iii) third attempt will be following failure at supplementary examinations period in ENG. 17 b(ii)



- (iv) and the examination will be taken at the ordinary examination period when the paper is offered fourth attempt will be following the supplementary examination period, following the ordinary examination period in which the third attempt in ENG. 17 b(iii) above is made.
- c) A candidate who fails six or seven units of a year of study after the first attempt and subsequently fails the same six or seven units after retaking the examinations shall be discontinued.
- d) A candidate who retakes examinations after failing six or seven units of a year of study and subsequently fails in any of the units at the retake which he/she then fails again at the third attempt, shall be discontinued.
- e) *A candidate who fails to complete the five year program in eight academic years shall be discontinued.*
- f) *A candidate who attains an average mark of less than 40% in any year of study based on the marks obtained on the 1<sup>st</sup> attempt for each unit, shall be discontinued”.*

**AWARD OF DEGREE**

- ENG. 18 (a) To be considered for the award of the degree in the College of Engineering and Technology, candidate must have passed all the required units of first, second, third, fourth and fifth years of study of the respective degree programme.
- (b) No candidate shall be awarded the degree without passing practical attachments.
- (c) **No candidate shall be awarded the degree without passing SZL 2111 HIV/AIDS.**

**CLASSIFICATION OF DEGREE**

- ENG 19 (a) A candidate who qualifies for the award of degree shall be placed in one of the following classes:
  - *First Class Honours*
  - *Second Class Honours (Upper Division)*
  - *Second Class Honours (Lower Division)*
  - *Pass*
- (b) The final classification of the degree in the College of Engineering and Technology shall be based on 80 required units taken during the five years of study for the respective Bachelor of Science in Engineering. *Only the marks obtained at the first attempt shall be used in the calculation and determination of the final award.* The 80 required units shall not include SZL 2111 HIV/AIDS.

- (c) The total marks for the required units for the degree specified in the College of Engineering and Technology will be *computed using the overall percentage mean obtained in each year of study weighted as follows:*

Year of Study	% WEIGHTING		
	5-Yr Program	Mid-entry (4-Yr Program)	Mid-entry (3-Yr Program)
1	15%	-	-
2	15%	17.5%	-
3	20%	22.5%	30%
4	25%	30%	35%
5	25%	30%	35%

- (d) The degree shall be classified as follows:
  - **70% and above** *First Class Honours*
  - **60% and above but less than 70%** *Second Class Honours (Upper Division)*
  - **50% and above but less than 60%** *Second Class Honours (Lower Division)*
  - **40% and above but less than 50%** *Pass*
  - **Below 40%** *Fail*

**APPEAL FOR RE-ASSESSMENT**

- ENG. 20 A candidate may appeal for remarking of a written examination paper within four weeks after the release of results for the course unit for which the appeal is made.

**RELEASE OF RESULTS**

- ENG. 21 A student’s registration for courses, sitting for examinations, release of results and awarding of the Degree shall be subject to the student fulfilling all University regulations concerning payment of fees.

