DATA LINK INSTITUTE

STUDENT HANDBOOK
4TH EDITION

The Future is Bright
The Future is Data Link
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1. CHAPTER ONE - ABOUT DATA LINK INSTITUTE

1.1. Introduction

Data Link Institute is a tertiary institution and offers programmes leading to the award of a Bachelor of Science Degree (Hons.) in Business Administration, and Bachelor of Science Degree (Hons.) in Computer Science and Information Systems and Bachelor of Science Degree (Hons.) in Information Communication Technology. The options under the degree programme in the award of a Bachelor of Science (Hons.) in Business Administration include the Human Resource option, Marketing Option, Accounting Option and, Banking and Finance Option.

Data Link Institute also provides tuition for students interested in acquiring Ordinary and Advanced Diplomas from external examination bodies and institutions.

Data Link Institute has its main campus in Tema, located at 5th Avenue, Community 10, New Road, off the Tema General Hospital Road.

The Institute has acquired a one-mile square piece of land along the Akosombo-Tema trunk road, near Doryumu, for the construction of a permanent campus. In Tema, the Institute has four plots of land at community 1, behind TDC and Community 6 near Pro-vita Hospital earmarked for the construction of a facility for the school’s executive and professional courses for workers in and around Tema.

1.2. Brief History of Data Link

Data Link Institute takes its origins from the Data Link Company Limited (DLCL), which operates as a charitable educational enterprise. DLCL was formed in 1993 by Mr Ernest Ansah, a Ghanaian national then resident in the UK and working with the UK Government. Its head office was sited at Takoradi. The company’s primary objective was to take advantage of the founder’s contacts overseas to source for educational resources from the UK to be used to advance the cause of education in Ghana.

The activities of Data Link Company have gone through three phases to transform it to its present status as Data Link Institute and an accredited University.

1.2.1. PHASE I: Distribution of computers:
The company began with the distribution and installation of free computers to second cycle schools across the country. Mr Ansah, the Founder, appealed to corporate bodies and institutions in the UK for donations of used computers for the project. The appeal was so successful that DLCL was able to distribute and install more than nine thousand (9,000) computers in one hundred and twenty (128) second cycle schools by 2003. Ms Jo Hasbury – the life patron - was the main force behind all donations.

Data Link Company Limited set up Information Technology (IT) centres in those schools and equipped them with computers and accessories, furniture, electricity and air-conditioners to train both students and workers in information technology.
education. In all, more than half a million Ghanaian students and workers benefited from this nation-wide drive for computer literacy.

Alongside the provision of computers and IT education, Data Link Company Limited operated a scholarship scheme to enable more than two hundred second cycle students have access to computer education.

1.2.2. PHASE II: Collaboration with NCC Education (UK)
Data Link Company Limited collaborated with the NCC Education (UK) to provide Ghanaian students access to higher education outside the country. Upon gaining recognition, Data Link Company Limited became affiliated to NCC Education (UK), thus making the company a representative and an accredited institution in Ghana to run the first year of three-year undergraduate degree programmes of over fifty NCC-affiliated universities in the UK, Canada, USA, Australia and New Zealand.

In this way, students could proceed to any of the NCC-affiliated universities to continue their undergraduate studies after successful completion of the first year’s programme in Ghana with Data Link Institute.

1.2.3. PHASE III: Accreditation as a Tertiary Institution Tertiary Institution
Upon meeting the requirements of the National Accreditation Board of Ghana in 2006, Data Link received an authorization to operate as a Tertiary Institution with the right to provide tertiary education in Ghana. With this mandate, Data Link Company Limited now assumed the name Data Link Institute and now runs four-year undergraduate degree programmes leading to Bachelor of Science degrees in Computer Science and Information Systems, as well as Business Administration with options in Accounting, Banking and Finance, Marketing, and Human Resource Management. With the


1.3. What Makes Us Unique
1. We are the first accredited Tertiary Institution in Tema.
2. Only University to offer Computer Science & Information Systems as Double Major.
3. Our Strict Dress Code makes our students stand out.
4. Our Computer Science Students developed five software of national interest within the first year of accreditation.
5. We constantly offer scholarship to brilliant but needy students.
6. Our students are sought after by employers whilst still in school.

1.4. Aims, Philosophy, and Objectives of DLI
a. Vision
b. Mission
c. Missions and Objectives of Schools
i. Mission Statement of School of Business Administration
To develop students professionally, to be socially and ethically responsible by providing quality education through a well-balanced and integrated academic programme. This is to enable the student to become professionally and academically functional in managing organizations.

ii. Objectives of School of Business Administration
- To train students to acquire specialized skills and acumen to effectively manage any organization.
- To provide students with the requisite training for entry into higher degree programmes in business.
- To provide students with a quality academic programme with such basic skills in business which will facilitate their job placement and retention.
- To encourage students to seek opportunities to become self-employed and entrepreneurs.

iii. Mission Statement of School of Computer Sciences
To be a frontier in providing cutting edge technological solutions in ICT problems through well-groomed and results oriented graduates.

iv. Objectives of the school of Computer Sciences
- To provide students with a high-quality programme that confers requisite skills for job placement or entrance into graduate degree programmes.
- To train students to analyze, design, implement, and test object-oriented software solutions to “real world” problems.
- To enable students to appreciate the value of efficient design created to meet clearly stated requirements.
- To prepare students to blend their computer science abilities with problem-solving skills specific to other domains.
- To develop students’ capabilities to work in multi-disciplinary and multicultural teams.

d. Educational Philosophy
The underlying philosophy and objectives of Data Link Institute are directed towards the physical, social, spiritual and mental development of students and faculty through both practical and intellectual preparation for good service to their communities.

The University aims at inculcating in each student a high sense of integrity, perseverance, adaptability, initiative and absolute trust in God. Our educational programmes provide opportunities for community or outreach engagements for students as well as the development of their vocational skills to enable them find their bearings in a highly competitive global market environment.
1.5. Academic Calendar for 2015/2018 – should be for 3 yrs
These are DLI date highlights for the 2013/2018 academic year.

October Stream:

**2014/2015 ACADEMIC CALENDAR**

**DEGREE PROGRAMME (REGULAR STREAM - DAY AND EVENING SCHOOL)**

<table>
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<th>ACTIVITY</th>
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<tbody>
<tr>
<td><strong>FIRST SEMESTER</strong></td>
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<tr>
<td>Arrival &amp; Registration of Continuing Students</td>
<td>15th September, 2014</td>
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<td>Teaching begins</td>
<td>15th September, 2014</td>
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<td>Deadline for Add / Drop of subjects</td>
<td>13th October, 2014</td>
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<td>Deadline for registration</td>
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<td>Deadline for submission of registered student list</td>
<td>15th October, 2014</td>
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<tr>
<td>Mid-Semester examination</td>
<td>2nd to 8th November, 2014</td>
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<td><strong>SRC WEEK</strong></td>
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<tr>
<td>Matriculation</td>
<td>18th December, 2014</td>
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<tr>
<td>Evaluation of Lecturers by students/ Revision Week</td>
<td>15th to 19th December, 2014</td>
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<td>Teaching ends</td>
<td>19th December, 2014</td>
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<tr>
<td>End of Session examination</td>
<td>5th to 15th January, 2015</td>
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<td>First semester break</td>
<td>15th to 20th February, 2015</td>
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<td><strong>SECOND SEMESTER</strong></td>
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<td>Registration of continuing students</td>
<td>23rd to 27th February, 2015</td>
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<td>Deadline for Add / Drop of subjects</td>
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<td>26th March, 2015</td>
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<td>2nd to 6th April, 2015</td>
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<td>20th to 23rd March, 2015</td>
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<td>25th to 29th May, 2015</td>
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<td>28th May, 2015</td>
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<tr>
<td>End of Session examination</td>
<td>8th to 18th June, 2015</td>
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<tr>
<td>Second semester break</td>
<td>19th June to 5th October, 2015</td>
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<tr>
<td>Graduation</td>
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<tr>
<td>Resit for the academic year</td>
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<tr>
<td>Summer school</td>
<td>June 2015</td>
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## 2015/2016 ACADEMIC CALENDAR

DEGREE PROGRAMME (REGULAR STREAM - DAY AND EVENING SCHOOL)

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<td>Arrival / Registration of Continuing Students</td>
<td>5th October, 2015</td>
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<td>Registration Begins</td>
<td>6th October, 2015</td>
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<td>Orientation of freshmen</td>
<td>7th to 10th October, 2015</td>
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<td><strong>SRC WEEK</strong></td>
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<td>23rd to 26th November, 2015</td>
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<td>18th to 28th January, 2016</td>
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<td>29th January – 19th February, 2016</td>
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<td>24th to 28th March, 2016</td>
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<td>Evaluation of Lecturers by students/ Revision Week</td>
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<td><strong>End of Session examination</strong></td>
<td>6th to 17th June, 2016</td>
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<td>18th June – 3rd October, 2016</td>
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<td>Summer school begins</td>
<td>June 2016</td>
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## 2016/2017 ACADEMIC CALENDAR

### DEGREE PROGRAMME (REGULAR STREAM - DAY AND EVENING SCHOOL)

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<td>Registration Begins</td>
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<td>Orientation of freshmen</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; October, 2016</td>
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<td>10&lt;sup&gt;th&lt;/sup&gt; October, 2016</td>
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<td>31&lt;sup&gt;st&lt;/sup&gt; October, 2016</td>
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<td>Deadline for submission of registered student list</td>
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<td><strong>SRC WEEK</strong></td>
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<td>Mid-Semester examination</td>
<td>28&lt;sup&gt;th&lt;/sup&gt; Nov. to 2&lt;sup&gt;nd&lt;/sup&gt; Dec. 2016</td>
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<td>16&lt;sup&gt;th&lt;/sup&gt; to 19&lt;sup&gt;th&lt;/sup&gt; January, 2017</td>
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<td>30&lt;sup&gt;th&lt;/sup&gt; Jan. to 9&lt;sup&gt;th&lt;/sup&gt; Feb., 2017</td>
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<td>First semester break</td>
<td>9&lt;sup&gt;th&lt;/sup&gt; Feb.– 6&lt;sup&gt;th&lt;/sup&gt; March, 2017</td>
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<td><strong>SECOND SEMESTER</strong></td>
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<td>Registration of continuing students</td>
<td>7&lt;sup&gt;th&lt;/sup&gt; March to 14&lt;sup&gt;th&lt;/sup&gt; April, 2017</td>
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<td>7&lt;sup&gt;th&lt;/sup&gt; March, 2017</td>
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<td>Deadline for Add / Drop of subjects</td>
<td>21&lt;sup&gt;st&lt;/sup&gt; April, 2017</td>
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<td>Deadline for registration</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; May, 2017</td>
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## 2017/2018 ACADEMIC CALENDAR

**DEGREE PROGRAMME (REGULAR STREAM - DAY AND EVENING SCHOOL)**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>DATE</th>
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<tbody>
<tr>
<td><strong>FIRST SEMESTER</strong></td>
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<tr>
<td>Arrival / Registration of Continuing Students</td>
<td>9th October, 2017</td>
</tr>
<tr>
<td>Registration Begins</td>
<td>9th October, 2017</td>
</tr>
<tr>
<td>Orientation of freshmen</td>
<td>2nd October, 2017</td>
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<tr>
<td>Teaching begins</td>
<td>9th October, 2017</td>
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<tr>
<td>Deadline for registration</td>
<td>31st October, 2017</td>
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<tr>
<td>Deadline for submission of registered student list</td>
<td>14th November, 2017</td>
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<tr>
<td><strong>SRC WEEK</strong></td>
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<tr>
<td>Mid-Semester examination</td>
<td>28th Nov. to 2nd Dec. 2017</td>
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<tr>
<td>Matriculation</td>
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<tr>
<td>Christmas holidays</td>
<td>22nd Dec., 2017 to 8th Jan., 2018</td>
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<tr>
<td>Resumption of Lectures</td>
<td>8th January, 2018</td>
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<tr>
<td>Teaching ends</td>
<td>19th January 2018</td>
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<tr>
<td>Evaluation of Lecturers by students/ Revision Week</td>
<td>22nd to 27th January, 2018</td>
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<tr>
<td>End of Session examination</td>
<td>29th Jan. to 8th Feb., 2018</td>
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<tr>
<td>First semester break</td>
<td>8th Feb.– 5th March, 2018</td>
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<tr>
<td><strong>SECOND SEMESTER</strong></td>
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<tr>
<td>Registration of continuing students</td>
<td>12th March to 18th April, 2018</td>
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<tr>
<td>Teaching begins</td>
<td>12th March, 2018</td>
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<tr>
<td>Deadline for Add / Drop of subjects</td>
<td>6th April, 2018</td>
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<tr>
<td>Easter break</td>
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<tr>
<td>Mid-Semester examination</td>
<td>30th April to 4th May, 2018</td>
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<tr>
<td>Teaching ends</td>
<td>8th June, 2018</td>
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<tr>
<td>Evaluation of Lecturers by students/ Revision Week</td>
<td>11th to 15th June, 2018</td>
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<tr>
<td>End of Session examination</td>
<td>18th June to 5th July, 2018</td>
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<tr>
<td>Second semester break</td>
<td>28th July to 9th October, 2018</td>
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<tr>
<td>Graduation</td>
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<td>Resit for the academic year</td>
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<tr>
<td>Summer school begins</td>
<td>July, 2018</td>
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For Special calendar dates for weekend programmes, please consult the University website for current information.
1.6. Learning Outcomes

The following learning objectives, described in terms of the desired characteristics of educated graduates, are used in part to guide educators in their development of courses and programmes.

*Love of Learning:* Students should have a strong desire to learn for the sake of acquiring knowledge to enable them fit well into today’s society. This desire should be reinforced both by their formal studies and by their general university experience, and it should be ingrained in them for life.

*Depth of Understanding:* Students should have mastered knowledge in at least one discipline in considerable depth, approaching the frontier of knowledge as closely as the nature and the circumstances of the disciplines allow.

*Independence of Thought:* Students should be capable of original thinking, and express such thoughts clearly and vigorously, rather than simply following the direction of others. They should appreciate both the national and the international dimensions of their disciplines and be prepared to apply their knowledge in ways that promote national dignity and global harmony. They should have an understanding of the natural and social environment that extends well beyond national borders.

*Moral Maturity:* Students should be able to make sound moral judgment. They should be able to identify moral issues, weigh competing considerations in complex situations, assess criticisms, and determine when an inquiry is sufficiently advanced to warrant drawing any conclusion. In addition, they should have the strength of character to do what they judge to be right, regardless of social pressures or personal sacrifices.

*Literacy:* Students should become highly literate, with the ability to fully comprehend the most demanding materials in print or other media. They should be able to develop a position orally and present it effectively in writing. Their writing skills should include not only the ability to write correctly but also the ability to advance a reader's understanding in a style that is pleasant.

*Numeric:* The students should understand the nature of mathematical focus of inquiry at a level that overcomes any feeling of alienation from a technological society and that enables them to appreciate the significance of numerical and statistical data.

1.7. Student Health Services

The Data Link Institute has access to a well-resourced first aid facility. The University has signed an agreement with Raphael Medical Centre, which is only 50 yards away from the gates of the University to take care of the medical needs of staff and students. An evaluation or recommendation given by the Centre will be taken as proof of illness.
Students/staff may use this evaluation to request an excused absence from classes or work as the case may be.

Data Link Institute maintains a drug-free environment in accordance with the laws of Ghana. The unlawful use, possession, distribution, dispensing or manufacture of controlled substances by employees or students is therefore prohibited and offenders will be handed over to the law enforcement agencies.

A student who falls sick and obtains commercial medical attention whether at home or at the Institute shall bear the cost himself/herself.

1.8. The Bookstore
The DLI Bookstore is available to the staff, students, and external community, to purchase books, magazines, and other learning or DLI material including DLI ceremonial wear, T-Shirts, and so on.

The Bookstore is also responsible for the procurement of required textbooks for each calendar year. Before any academic year, the Bookstore determines the required textbooks for each course, and makes arrangement to purchase them before lectures begin, so students may purchase them as needed.

Students are encouraged to purchase books from the bookstore, to enhance their classroom learning.

1.9. The Library
The DLUC has thousands of volumes of books that cover all the courses offered in the Tertiary Institution, as well as reference books and encyclopaedias. In addition to hardcopy volumes, the Library is also connected to a rich source of online books and references in its e-Library.

The following sections discuss the rules and regulations guiding the Tertiary Institution Library.

1.9.1. Admittance to the Library
1. The Library is a quiet study environment. All users must maintain silence at all times while in the library.
2. Cell phones, mp3, or other sound-emitting devices, must be switched off at all times.
3. Conversations and group discussions are strictly prohibited. All students may be allowed admission into the library except in cases of intoxication or misconduct.
4. Eating and drinking are prohibited. No food or drink is allowed into the library, including fruits, candies, and other wrapped confectionaries.
5. The Library is not a hostel; as such, sleeping in the library is not allowed. All users must leave the Library when done with their research, to make room for other users.
6. Handbags and school bags are not allowed into the library. Students may keep their bags with the Library Security, at their own risk. DLI will not be liable for any personal possessions lost in or around the Library.
7. Intoxicated, drug-influenced, loud, or other questionable users will not be allowed into the Library.
8. In cases of disputes, users may call the attention of Library staff to resolve the matter. In the worst case, the Librarian may be called in, and the Librarian’s decision will be binding on all parties, except in cases that demand further investigation.
9. Data Link Institute Tertiary Institution reserves the right to call in the Police in cases where violators need to be dealt with.

1.9.2. Care of Books

1. No book is to be written in, cut, or damaged in any way. Any defect in or damage to any book must be reported to the library staff immediately.
2. Readers / students must not trace any picture or figures from books or other library material
3. Readers and borrowers will be held responsible for any damage to, or loss of, books in their charge, and will be required to pay the appropriate costs of such damaged or lost books.

1.9.3. General Rules

1) Gowns, raincoats, umbrellas, scanners, tape recorders etc must be deposited with security at the entrance and a tag given as a receipt. However, such items are deposited at owners’ risk, and the library disclaims responsibility for any loss or damage to these personal items.
2) Firearms and other offensive materials or weapons are not allowed anywhere near the Tertiary Institution premises.
3) Pets are not allowed in the library
4) No seat shall be reserved by or for any reader. Any seat so reserved shall be cleared by library staff for use by others.
5) Library staff will inspect all items taken out of the library.
6) Readers may not enter staff offices except by invitation.
7) Students shall clear with the library before end of semester examinations.
8) All borrowed library items must be returned before the commencement of end of semester examinations.

1.9.4. Borrowers and Privileges / Obligations

1) Books shall be issued to students for 2 (two) weeks.
2) Every late item will attract an overdue charge of Ghc5 (5 Ghana cedi) per day until it is returned
3) Reference books and periodicals are generally available for short-term use within the library and are not to be taken out of the library.
4) A book may be renewed if it is not on hold and the current borrower has not exceeded any limits.
5) Borrowing privileges will be withdrawn if the Borrower owes overdue fines to the library
6) DLI Tertiary Institution reserves the right not to lend a Borrower any library material, without explanation.
# 1.9.5. Offences and Sanctions

<table>
<thead>
<tr>
<th>Offence</th>
<th>Sanction</th>
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<tr>
<td>Loss of library item</td>
<td>The Borrower shall pay twice the current price of the item, plus a processing fee of Ghc10.00</td>
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| Unlawful acquisition of library material / stealing | Regular Books: Loss of library usage rights as well as other privileges, up to suspension / rustication from the tertiary institute  
Reference Books: Suspension from the tertiary institute, up to dismissal  
Rare books: Outright dismissal |
| Mutilation of books and related materials     | Suspension and possible dismissal from the tertiary institute |
| Failure to return library items upon demand of library authorities | Overdue charges, administrative charges, and loss of privileges up to suspension from the tertiary institute |
2. CHAPTER TWO – GENERAL CONDUCT OF STUDENTS

2.1. Application of Regulations

The Institute’s regulations shall apply to all students. Copies of such regulations shall be deposited with the Registrar, Dean of Students, academic Deans, Heads of department, and shall be brought to the attention of students.

All students of the University shall sign, on admission, an undertaking to comply with rules regulating the conduct of students that may from time to time be instituted by the Academic Board. Ignorance of regulations or of any public notice shall not be accepted as an excuse for any breach of discipline. Accordingly, every student shall, upon enrolment, be required to obtain a copy of all regulations regarding student conduct. Students must conduct themselves in a quiet and orderly manner and pursue their studies with all diligence. They should observe the statutes and conform to all such regulations and orders for the good governance of the Institute.

The operation of these Regulations is without prejudice to the application of the general law of Ghana, which applies to all persons in the Institute.

The officers of the Institute who have a special responsibility, under the President, to maintain discipline and order among students are the Dean of Students, heads of hostel, and tutors. It shall be an offence to disobey these officers in the discharge of their duties.

2.2. Principles of Conduct

All students are considered as representatives of the Institute, on or off campus, and must strive to conduct themselves in their dealings and transactions as worthy ambassadors. The following lists are examples of the type of conduct that violates the Institute’s expectation for proper student conduct and can be the cause for disciplinary action, including dismissal:

- Disrespect for individual and Institute property, including theft and vandalism.
- Gambling or betting.
- Refusal to obey honour and sustain civil law.
- Refusal to respect individual rights. This includes physically or verbally abusing any person or engaging in a conduct that threatens or endangers the health or safety of others.
- Obstructing or disrupting any lawful activity on the University campus including classes, the performance of official duties by University personnel, teaching, research, disciplinary, administrative or other functions of the University.
- Violation of any of the policies of the University, such as the Alcohol and Tobacco Policy, Computer Abuse Policy, Sexual Standards Policy, (Sex Discrimination, Sexual Harassment etc.), and Weapons Possession.
2.3. Academic Ethical Standards

Students are expected to maintain high standards of academic integrity and scholarly practice. The University does not tolerate academic dishonesty of any kind: whether as a result of failure to understand proper academic and scholarly procedures, or as an act of intentional dishonesty.

Academic dishonesty is defined as attempting to obtain academic credit for work that is not one’s own. For example:

- Copying another student’s answers at an examination;
- Obtaining, or attempting to obtain, the answers to an examination in advance;
- Submitting a paper that was written by someone else;
- Submitting a paper that includes phrases, sentences, and paragraphs that were copied verbatim, or almost verbatim, from a work written by someone else, without making this clear, without indicating that these words were someone else’s with the use of quotation marks or other appropriate conventions;
- Collaborating on a homework assignment when this has been expressly forbidden by the lecturer.
- Using unauthorised materials in completing assignments or examinations.
- Submitting the same paper for more than one class without the express permission of the instructor involved.
- Other conduct that indicate use of the literary work of others as one’s own.

For all forms of academic dishonesty, students who knowingly allow other students to use their work are themselves considered to be academically dishonest. This is a serious offence that will attract various forms of punishment, depending on case-by-case severity, including warning; receipt of a lower or failing grade; dismissal from a class; suspension; expulsion; degree annulment; or, in the case of falsification of official documents, non-admission or admission annulment.

2.4. Sexual Harassment Policy

Sexual harassment is reprehensible and will not be tolerated by the Institute. It subverts the mission of the Institute and threatens the careers, educational experience and well-being of students, faculty and employees. Relationships involving sexual harassment or discrimination have no place within the Institute. In both obvious and subtle ways, sexual harassment is destructive to individual students, faculty, employees, and the Institute’s community as a whole. When, through fear of reprisal or pressure, a student, faculty member or employee, submits to inappropriate sexual demand, the Institute’s ability to carry out its mission is undermined. Perpetrators of sexual harassment whether between staff and faculty, staff and student, faculty and student, staff and staff or faculty and faculty will be severely disciplined, up to and including dismissal from DLI.

2.5. Disciplinary Policy

Violation of national or local laws makes a student subject not only to the Institute’s disciplinary actions but also to actions by the appropriate law enforcement agency.

All regulations announced in the hostels or in the assemblies of the Institute have the
same significance as those published in the Institute’s publications. When any student is at variance with such regulations, an effort will be made to restore that student to a spirit of willing and intelligent harmony. This restoration begins with a personal counsel and admonition. A verbal warning, the use of letters and demerit system, restricting the student’s privileges and/or followed with suspension. If a student proves impervious to discipline, and his/her influence seems seriously detrimental to other students, the Institute reserves the right to dismiss him or her.

In cases of absence involving non-attendance at lectures, tutorials, practicals or examinations, the written permission of the department and hostel authorities concerned must be obtained.

2.6. Student Identification Card

The Office of Admissions and Records issues identification cards (ID) to all students upon initial registration. The ID card and number are the student’s official identification at the Institute and will be used for all examination and certification purposes. Students are required to present their ID cards when requested by an official of the Institute. They must be returned to the Office of Admissions and Records by the student upon termination of his/her academic career at the Institute. A lost ID card may be replaced at a fee.

2.7. Names of Students

For the purposes of the Institute, students are known only by the names which they have used on their entry documents. Names on degree Certificates must conform with original entry certificates, except for change of name cases for married females only.

2.8. Change of Name

As an institutional policy, the Institute does not accept to change or amend biological records. However, when a female student gets married, she may apply to have her name altered to include the surname acquired by marriage, followed in parentheses, by the word "née" and her former surname. In such cases, proof of marriage will be required before the official change is affected.

2.9. Attendance at Lectures and Examinations

Students are required to attend lectures, tutorials and practical classes specified for their course of study, and all such examinations as the Institute or the departments may from time to time require, and to perform all written and practical work as prescribed for them.

Students will be required to clock into lecture halls and examination sessions using the special biometric equipment provided at the entrance. This will help to check student truancy by monitoring their movement in and out of the halls.

To obtain a grade for a course, the student should not absent himself/herself for more than the equivalent of three weeks contact hours for the course. For a one-credit course, the number of classes missed by the student should not exceed three; for a two-credit course, the number of classes missed by the student should not exceed six; for a three-credit course, the number of classes missed should not exceed nine. Students
who absent themselves in any one semester in that manner will be deemed not to have satisfied the attendance requirements for the semester. Such a student shall be required to repeat that semester.

2.10. Academic Honours – Dean’s List
After each semester’s examinations, students with Grade Point Average of 3.6 or better are placed on the Dean’s List for that semester. The Dean’s List is displayed on publicly accessible notice boards for visibility and recognition.

2.11. Use of Academic Dress
Students may be required to wear the academic dress appropriate to their status on the following ceremonial occasions:
- Matriculation
- Congregation, and
- Other occasions as may be specified.

2.12. Formation of Societies and Clubs
Student societies and clubs in the Institute may, subject to Management approval, be formed at the request of at least ten interested students. The request should be submitted to the Dean of Students for approval and shall be accompanied by a recommendation of the Students’ Representative Council and a copy of the Constitution/By-laws of the proposed society or club.

The approval for the establishment of the proposed society or club shall be officially published by the Institute after the process has been duly completed.

Within three months from the date of the promulgation of the society or club, the secretary shall deposit the names of persons holding principal offices in the society or club with the Registrar and the Dean of Students. Once a year thereafter, the Registrar and the Dean of Students shall be furnished with the names of their principal officers one of whom shall be a senior member, who shall function as the senior treasurer. There shall be no secret societies, clubs or grouping whatsoever. The Institute reserves the right to dissolve any club or society whose operations do not conform to the vision of the Institute.

Below is a list of current societies that students may join during successive Academic Years:
1) Debating Society
2) Computer Science Students’ Association
3) Business Administration Students’ Association
4) Institute Choir
5) Any other Christian or Moslem Association

New societies will be formed with the creation of new academic programmes.
2.13. Data Link Institute Students’ Association (DISA)

The officially recognised student organisation is the Data Link Institute Students Association, or DISA.

All students who register for programmes lasting one or more academic years are automatically members of the student association. Membership of the Association and the amalgamated clubs of the Institute is compulsory for all students.

2.13.1. The Aims and Objectives of the Students Association (DISA)

1. To represent the students of the Institute.
2. To promote the general education and welfare of the students of the Institute.
3. To develop and encourage recreational and social activities among students.

DISA may vote amendments to its own constitution, by laws, working policies; make decisions and elect officers, under the supervision of the Dean of Students. The constitution, bylaws and the working policies shall be consistent with the Institute’s policies and shall require the approval of the faculty, Dean of Students, and the President.

2.14. Organising Public Functions within the Institute

Students who wish to organize any public function within or outside the Institute must obtain prior permission from the Dean of Students. The Dean of Students shall in turn seek approval from the Registrar and the President. An application for permission to organize a function should provide the following information:

- Date and time of the function;
- Place where the function is to take place; and
- Names and description of lecturers, speakers, or performers at the function.

This information, together with evidence of fulfilment by the organizers of any requirement imposed by law in relation to the holding of such a function, should normally reach the Dean of Students at least ten working days before the function takes place. The Dean of Students may impose such requirements as may appear to be necessary or desirable. Final approval can only be obtained from the Management Committee.

For the purposes of this section, a public function is one to which persons other than students of the Institute are invited or entitled to attend.

2.15. Processions and Demonstrations

Data Link Institute being a private institution does not allow any demonstrations, strikes or any such acts whatsoever. For this reason, the Institute’s Management Committee will hold regular meetings with the students as often as possible. These meetings will aim to address all issues to avoid potentially explosive situations.

2.16. Computer Usage and Ethics

The Institute operates a well-resourced Computer Centre which students are required to use with reasonable care and skill. The Computer Centre is for the official use of
students, faculty and staff to facilitate and enhance the college’s business including teaching, learning support, research, marketing and other related support activities). The Institute does not accept liability for any loss or damage to personal data a user may suffer from as a result of system failure or malfunctioning.

2.17. Computer Vandalism
The Institute takes very strong exception to any act of computer vandalism with the intent to harm the system hardware or software, to render them inoperable. Computer vandalism is defined as any attempt to harm, modify, and/or destroy computer hardware, data of another user and Data Link Institute. This includes but not limited to the uploading or creation of computer viruses. In all cases of vandalism, existing policy on this act will apply.

2.18. Computer Security
Security on any computer is a high priority, especially when the system involves many users. If you think you have identified a security problem on any of the University’s computers, you must notify the Systems Administrator at once. Do not demonstrate the problem to other users.

2.19. Security Policy
For the purpose of security, users are advised to observe the following policies carefully, as any breach of same shall be subject to disciplinary action.
- Users must not intentionally seek information on, obtain copies of, or modify files, data or passwords belonging to other users.
- Users must not misrepresent other users on the network.
- Users must not attempt to gain unauthorized access to operating systems or programs files on which the computers operate.
- Users must not give their password to other users.
- Users must change their password as frequently as possible.
- All users are individually responsible for all data on their computer, as no computer professional can guarantee the safety of personal data while the computer is being serviced.

2.20. Publications
The Management Committee will be informed of any intention to produce a student publication within the Institute and approval in writing shall be obtained for such a publication. A copy of every issue of the publication will be lodged with the Management Committee and the Institute’s Librarian upon publication.

Every issue of said publication shall state the names of the Editor, the Members of the Editorial Board, as well as the Publisher. The Members of the Editorial Board will be held jointly responsible for the full contents of each issue of the publication. A copy of each issue must be deposited with the Registrar/Administrator at least seven working days before circulation.
2.21. Internal and external fund raising
Permission to solicit for money other than for club subscriptions must be obtained from the Dean of Students.

2.22. The Dean of Students
The Dean of Students is responsible for the welfare and discipline of students in the Institute. The Dean works in close collaboration with the Students Association and the Hostels.

For the efficient running of the office, the Dean shall have the support of a committee comprising all heads of department and two representatives of the DISA.

2.23. Disciplinary Procedure
If a student violates hostel regulations, the authorities of the hostel to which he/she belongs shall take the necessary disciplinary measures.

If a student violates any regulations of the Institute outside the hostel, it shall be reported to the Dean of Students for appropriate sanctions. For serious offences, the Institute’s Disciplinary Committee shall investigate the matter and apply appropriate disciplinary sanctions or make recommendations to the Management Committee.

2.24. Sanctions
Any student who does not observe the statutes and regulations, neglects his/her duties, or who commits any act subversive of discipline or good order with the intent to bring discredit upon a hostel or the Institute, may be punished by a warning, a reprimand, a fine, gating, or rustication for a period of time, or withholding of results of examinations or outright dismissal.

Sanctions which involve temporary or permanent removal from the Institute shall be affected only with the concurrence of the Management Committee. Students who damage Institute property or equipment will be surcharged twice, with the cost of repair or replacement, and must settle such accounts by cash payment on demand.

2.25. Criminal Conduct
Criminal conduct of DLI staff or students is strictly prohibited. This means that any unlawful conduct that will in any way attract law enforcement agencies to the individual, or to the Institution account of the individual, thus bringing disrepute to DLI, will not be tolerated in any way. These include but are not limited to: robbery, fraud, murder, kidnapping, possession and/or distribution of drugs, possession and/or distribution of illegal weapons, rape, assault, and other acts that are deemed illegal or criminal by law enforcement agencies. Any student so involved will be handed over to the Police and dismissed from the Institute.

2.26. Dress Code
All students (day, evening and week-end) are to be formally dressed for lectures in a decent executive and professional manner. There will be no Jeans, Shorts, T-Shirts,
Lacoste, (except Data Link T-Shirt) or such informal apparel, in any classroom. All Men are to be in Neck Ties and ladies are to dress in a most appropriate professional manner. Unprofessional or distracting bodily exposure will not be tolerated.

2.27. **Letters of Recommendation**

From time to time students require letters of recommendation, attestation, introduction, or similar identification documents for use with employers, embassies, institutions of graduate studies, or similar purposes. These letters can be obtained upon request to the Dean of Students. Please note that letters will be issued only to students of good standing and conduct, as well as students who have a zero-balance due to the Institute Accounts Department. The process of obtaining these letters involves obtaining clearance from the Accounts Department as well as the Dean of Students, Head of Hostel, and the student’s Head of Department. Letters of introduction are only issued to Degree students from L200 upwards as well as students in other professional programs.

2.28. **Appeals, Conflict Resolution, and Binding Arbitration**

Any member of the Institute’s community who is aggrieved by any disciplinary sanctions may appeal to the Management Committee through the Head of Department for a review within seven days of the notification of the imposed sanctions. The Management Committee, on receipt of a report from the appropriate source, may request a review of the sanctions so imposed.

If the dispute is between students, the parties must exhaust all DLISA avenues of resolution, including the DLISA Judiciary, before moving to the Management Committee. Note that DLI will not tolerate any issue being taken to the public domain or the media before the Institute Management Committee is given a chance to sit on the matter. Students who take matters to the public before the awareness of the DLUC Management do so at their own risk.

After the decision of the Management Committee, the parties may choose to appeal to the DLI Board of Governors, which constitutes the final level of authority at DLUC, and its decision(s) will be binding on all parties involved in a dispute.

2.29. **DLI Counselling Centre**

DLI has qualified psychologists and counsellors who support students and staff in the daily task of studies and employment. Students are guided in academic and spiritual decision making, while staff are guided in work-related issues. Staff and students can also receive counselling in such areas as marriage and family, career paths, course selections, conflict resolution, stress management, time management, examination problems, as well as prayer. The DLI Chaplain is also available full time to assist in these areas.

2.30 **Fee Payment Policy**

Students’ fees are made up of tuition fees and other charges for which they may be liable whilst studying at Data Link Institute. In principles all fees become due and payable in full at the beginning of every academic year.
The Institute however accepts payment of fees by semester. Students must pay their semester fees in full or go by the flexible Payment Plan before they can be permitted to register their semester courses.

The Institute reserves the right to impose sanctions against students who persistently refuse to pay their fees as stipulated in this Fee Payment Policy.

### 2.30. Fee Refund Policy

Fees are typically non-refundable. However, there are situations under which the fee may be refunded to a student. Such situations include cancellation of classes or other extraneous circumstances caused by the Institute.

**N.B.**

- A Refund Request Form must be collected from the Accounts Office and be completed for all refunds.
- Information of fees and penalties on foreign students is available at Account Department.

### 2.31. Financial Information to students:

- It is the responsibility of each student to familiarise himself or herself with the Institute’s regulations pertaining to financial matters.
- Data Link Institute does not accept responsibility for any loss, damage or interruption of classes, accommodation suffered by any student as a result of circumstances beyond the reasonable control of the Institute. These circumstances include the suspension or termination of services by any group of the Institute’s employees.
- The Accounts Office, and designated bank accounts indicated on students' bills, serve as the collection points for all Institute’s fees and charges. Neither the Accounts Office nor the Banks can make adjustments to any fee without the permission of the Registrar.
- The Institute reserves the right to change any fees at any time.
- Registration as a student is not allowed until the requisite fees are paid in full.
- All fees are due in full at the beginning of each semester/quarter. However, students who are unable to meet this requirement can opt for the flexible payment schedule. In this schedule, students pay at least 50% or 60% of fees by the beginning of the semester/quarter, 50% / 40% by mid-semester or end of quarter for weekend students. Non-adherence to any of the three (3) time schedules for the flexible payments attracts an installation fee of GH¢50 and GH¢70 respectively. In the event where student defaults, a fee of GH¢100 shall be charged.
- Students who fail to pay their fees in full (or meet the 50%/ 60% requirements if they opt for the flexible payment plan) by the beginning of each semester/quarter automatically lose their status as students and will therefore be barred from subsequent lectures and exams until they fulfil their obligation. Such persons can however have their student status restored if they make all outstanding payments, including penalties,
or arrange a credible payment plan with the Registrar. Besides, a reinstatement fee of GH¢100 will be charged.

- Students who have outstanding fees are not permitted to register, and also cannot receive official transcripts, letter of introduction, degree certificates or any etc. until the debt has been paid.

- Students who have complied with their financial obligations, but withdraw from the Institute before the end of the fourth week of the semester, and immediately notify the Institute in writing accordingly will have their fees refunded according to the following rules:
  - Two workdays following the first meeting of classes - Full refund excluding registration and freshman documentation fees
  - Second week following the first meeting of classes - 50% refund.
  - Up to the fourth week following the first meeting of classes - 25% refund
  - Students who withdraw from the Institute after the fourth week of classes will receive no adjustment in tuition fees
  - Those whose study is interrupted by the Institute for disciplinary reasons will also not receive any adjustment in tuition and fees, if this occurs after the third week of classes.

**NB**

**Late registration**

*Students who fail to register two weeks after the beginning of the semester are given another two weeks to register after which they are charged a late registration penalty of GH¢150.*

After the late registration deadline students who fail to register automatically lose their status as students for that semester.
3.0 CHAPTER THREE – ADMISSION REQUIREMENTS

3.1. Preamble
Data Link Institute is a co-educational secular institution of higher learning, offering a range of academic programmes into which it admits applicants with different academic backgrounds. The Institute’s academic programmes cover sub-degree certificates/diplomas and Bachelors' degrees. As a policy, the Institute admits applicants from all races and nationalities, irrespective of their gender, religious, cultural, social or ethnic persuasions.

3.2 General Entry Requirements
Entry requirements to Data Link Institute are subject to guidelines laid out by the National Council on Tertiary Education (NCTE), Ghana. There are two levels of admission to the undergraduate degree programmes of the school. These are the Senior Secondary School Certificate Examination (SSSCE) and the General Certificate of Education (GCE) Ordinary and Advance levels.

Applicants with Senior Secondary School Certificate Examinations (SSSCE) are admitted to Level 100 of our degree programmes.

Applicants with the required passes in the General Certificate of Education (GCE) Advanced Levels are admitted to Level 200 of our degree programmes.

3.2.1 Senior Secondary School Certificate/WASSSCE:
Applicants with SSSCE/WASSSCE are required to have passes in three (3) core subjects in English, Mathematics and, Integrated Science or Social Studies plus three (3) passes in Elective subjects with an Aggregate 24 or lower.

3.2.2 General Certificate of Education:
Applicants with WAEC General Certificate of Education or West Africa School Certificate (WASC) must have at least five (5) credits at the GCE Ordinary level including English Language, Mathematics, an Arts Subject and a Science subject; plus three (3) passes at the Advanced level.
- At least one of the Advanced level passes must be a grade D or better. A pass in General Paper will be an advantage.
- In exceptional circumstances, applicants with 2 passes at the 'A' level, whose passing grades are not lower than 'C', may be admitted.
- Candidates who are deficient in 'O' level Mathematics or English or Science may make up with examination in Core Mathematics or Core English or Core Integrated Science at the Senior Secondary School Certificate (SSSCE) level.
- Similarly, Science candidates who are deficient in an Arts subject may make up with Core Social Studies.
3.2.3 B.Sc. (Hons.) Business Administration Entry Requirements

- SSSCE/WASSCE holders with Business and General Arts backgrounds must have at least passes in the three (3) core subjects indicated and passes in any three (3) of the Elective subjects listed below.

<table>
<thead>
<tr>
<th>Core</th>
<th>Elective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>Accounting</td>
</tr>
<tr>
<td>English Language</td>
<td>Business Maths and Cost</td>
</tr>
<tr>
<td>Integrated Science/Social Studies</td>
<td>Business Management</td>
</tr>
<tr>
<td></td>
<td>Economics</td>
</tr>
<tr>
<td></td>
<td>Financial Accounting</td>
</tr>
<tr>
<td></td>
<td>Principles of Cost Accounts</td>
</tr>
<tr>
<td></td>
<td>History</td>
</tr>
<tr>
<td></td>
<td>English Literature</td>
</tr>
<tr>
<td></td>
<td>Agric and Environmental Studies</td>
</tr>
<tr>
<td></td>
<td>General Knowledge in Arts</td>
</tr>
<tr>
<td></td>
<td>Further / Additional / Elective Mathematics</td>
</tr>
<tr>
<td></td>
<td>Christian Religious Knowledge</td>
</tr>
<tr>
<td></td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td>Geography</td>
</tr>
<tr>
<td></td>
<td>French/Ghanaian Language</td>
</tr>
<tr>
<td></td>
<td>General Science</td>
</tr>
</tbody>
</table>

- SSSCE/WASSCE applicants with science backgrounds must have passes in the three (3) core subjects listed above plus passes in Physics, Chemistry, Biology, Elective Mathematics or any other subjects.

- General Certificate of Education (GCE) holders must have at least a credit in English Language, Mathematics and any Science Subject, plus any other two (2) passes at the (Ordinary level) and, three (3) passes at the GCE (Advanced level) with a minimum of a “D” in one subject. A pass in General Paper will be an added advantage. In exceptional cases two (2) passes at the GCE Advanced level with a grade not lower than “C” may be admitted.

3.2.4 B.Sc. (Hons) Computer Science and Information Systems and B.Sc. (Hons) ICT

- Applicants to B.Sc. (Hons.) in Computer Science and Information Systems must have passes in three (3) of the core subjects listed plus good passes in Elective Mathematics and any other two (2) Elective subjects.

<table>
<thead>
<tr>
<th>Core</th>
<th>Elective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>Physics</td>
</tr>
<tr>
<td>English Language</td>
<td>Biology</td>
</tr>
<tr>
<td>Integrated Science/Social Studies</td>
<td>Chemistry</td>
</tr>
<tr>
<td></td>
<td>Additional / Elective Mathematics</td>
</tr>
<tr>
<td></td>
<td>Statistics</td>
</tr>
<tr>
<td></td>
<td>Life Skills</td>
</tr>
<tr>
<td></td>
<td>Geography</td>
</tr>
<tr>
<td></td>
<td>French/Ghanaian Language</td>
</tr>
</tbody>
</table>

27
3.2.5 Other Qualifications
Professional/Diploma/HND Certificates including International General Certificate of Secondary Education (IGCSE), General Certificate of Secondary Education (GCSE), the American Grades 12 and 13 examinations and other external qualifications, which have equivalences to the SSSCE and the GCE, will also be accepted for admission purposes. Candidates with external qualifications are admitted to either Level 100 or Level 200, depending on the nature of the qualification and their equivalences to local qualifications. Some candidates may be referred to the National Accreditation Board (NAB) to obtain equivalence assessment for their international qualifications.

3.2.6 Admission of Matured Students
Mature persons applying for admission, who do not satisfy the approved requirements, must
a. Be at least 25 years old;
b. Show proof of age with birth certificate or any legitimate documentary proof of birth date with which 5 years is at least old at the time of Application
c. Provide introductory letter from employer or show any other proof of employment;
d. (For admission into chartered institutions) pass Mature Student’ Entrance Examinations conducted by itself (English Language, Mathematics and Aptitude Test). In the case of non-chartered institutions, the examinations should be moderated and the marked scripts, vetted by their Mentor Institution. In lieu of such examinations, the applications, the applicant should show proof of credit passes in English and Mathematics in WASSCE or any other nationally recognized standard High School level examinations (for qualifications from countries outside WAEC’s aegis).

3.2.7 Foreign Students
Foreign students may pursue courses towards the award of a Data Link Institute’s Degree or as visiting students, studying for the degrees of their own universities. The Institute attaches great importance to the cross-cultural experience that is made possible by the presence of foreign students on campus. The successful participation of international students in our courses helps us to acquire an excellent reputation for the quality of our teaching and research and of our student care services. Foreign students may be admitted if they hold qualifications equivalent to those listed above. Evidence of a good command of the English language at the Ordinary Level of the GCE or its equivalent is required.

There is a one-year English proficiency course (without specific entry requirements) for candidates who do not have the requisite English language background.

Foreign students are also required to produce a Police Clearance Certificate before registration, every academic year at DLI.

3.2.8 Transfer Students
A candidate who has been enrolled as a regular student in a Bachelor’s degree course in a recognized university or an institution of higher learning and made satisfactory
progress for at least two consecutive semesters may be considered for admission. The academic transcripts and certificate of good conduct of the student, duly signed by the Registrar of the University in question, will be assessed and placed accordingly, except that such a student should accumulate at least 70% of the minimum credits hours required for graduation at Data Link Institute. The classification of the degree will be based on the courses taken DLI.

3.2.9 Auditing Students
Candidates who qualify for admission to any of the University programmes but are only interested in auditing some courses may apply for admission in the normal way provided there is room in the class. The term “audit” refers to registration for attendance only. Such students will be issued with a certificate of attendance signed by the Head of Department and Faculty Dean at the end of the period of attendance. The same tuition fees will be charged as in the case of normal registration for courses.

3.2.10 Selection of Candidates for Admission
The final decision on the suitability of candidates for admission to any programme rests exclusively with the Admission Board, whose membership includes the Registrar, Deans of Faculty and Heads of Department. The Admission Board is headed by the Registrar.

3.3 Registration and Orientation
It is understood that every student, by the act of registering, agrees to abide by all rules, regulations and policies of Data Link Institute and of the faculties and units in which that student is registered.

For a student to obtain credit in any course, he/she must be admitted to the Institute and must be properly registered for courses during the scheduled registration period at the beginning of each semester.

Before registering for a course, the student must meet the pre-requisites or equivalent courses, as prescribed for that course. Any alteration by way of addition or withdrawal from courses for which a student is formally registered must be made with the approval of the Head of Department. Such alterations must be effected within twenty-one days from the commencement of the registration and on the prescribed form.

All fresh students are required to report at least one week before the commencement of the academic year to go through registration and orientation. Orientation is mandatory for all freshmen. All students are required to register fully with the Academic Affairs Directorate and in the Faculty/Department. No student shall be permitted to register by proxy.

Registration may take place concurrently with orientation. All freshmen must pass a medical examination before they are registered as students. Registration forms must be endorsed by Deans or Heads of Department.

A student who is found to have fraudulently gained admission to the Institute shall be deregistered and dismissed from the Institute. A deregistered student ceases to be a student of the Institute. Such a person shall forfeit any money paid to the Institute.
A student whose accounts are in arrears and unpaid at the beginning of a semester shall not be allowed to register for the new semester until all outstanding accounts have been fully settled.

3.3.1 Tutorial System
A tutorial system is in place and offers an opportunity for counselling to students in both welfare and academic matters.

3.3.2 Student Associations and Community Interaction
Students maintain interaction with each other and the wider community through recognized clubs and societies, mainly the Data Link Institute Students’ Association and other organizations/committees, which provide various kinds of entertainment and social life on the campus.

3.3.3 Add and Drop Deadlines
A student shall have up to three weeks (21 days) from the commencement of registration at the beginning of every semester within which to ADD or DROP courses, with prior approval from the appropriate Head of Department. After 21 days of the semester, departments shall publish for verification by students, lists of registered candidates for all the courses offered by the departments. These final lists will be used for semester examination purposes.

3.4 Enquiries
All enquiries about admissions should be addressed to:
The Registrar,
Data Link Institute,
P. O. Box 2481
Tema, GHANA.

Tel: 0303 910141 / 0303 307080
Email: registrar@datalinkuniversity.com
4 CHAPTER FOUR – ACADEMIC PROGRAMMES

4.1 The Academic Board
The Academic Board reserves the right to alter, replace or cancel any of the Academic Regulations and shall be the final authority for the interpretation of these regulations. No student who has started a programme of study following one set of regulations shall be set at a disadvantage by a regulation subsequently adopted.

4.2 Definitions
In these regulations, the following terms are used as indicated:

Programme is a plan of study, lasting over a specified period, which leads to degree, diploma or certificate qualifications.

Subject is a discipline which a student may take as a major or minor component of his programme.

Course is a component of which a subject may consist. It is an approved self-contained instructional package with a title, code number, contact hours, and credit weighting.

4.3 Faculties
The Data Link Institute currently runs two faculties:
1. Faculty of Business Administration; and
2. Faculty of Computer Science & Information Systems.

4.4 Academic Degrees
4.4.1. Bachelor of Science (Honours) Degree in Business Administration has several options:
- Accounting
- Banking & Finance
- Human Resource Management
- Marketing

4.4.2. Bachelor of Science (Honours) in Computer Science & Information Systems
4.4.3. Bachelor of Science (Honours) in Information and Communication Technology

4.5 Study Programme for Bachelor’s Degree
The Total Study Programme (TSP) for the Bachelor’s degree is grouped into:
- Institutional Requirements
- General or Basic (Faculty Requirements)
- Core (Faculty/Departmental Requirements)
Prescribed Electives (Faculty/Departmental Requirements)

The courses, which may be designated as mandatory, required, pre-requisite or co-requisite must be taken in approved combination and in the order laid down in programme Regulations.

4.6 Institutional Requirements

It is an institutional requirement and mandatory that every student graduating from this Institute studies and passes French for one year (i.e., two semesters). Students must also take Introduction to Computing, Communication Skills and Psychology and Critical Thinking and Logic.

No student will graduate from this University without satisfying these requirements.

4.7 Faculty / Departmental Requirements

Students of the Faculty of Business Administration must undertake general courses in enrichment studies in the first two years as foundation before embarking on the core and elective courses. The enrichment studies programme provides students with competency and understanding in computer usage, general mathematics, languages, accounting, communication skills and social ethics.

The courses available in Levels 100 and 200 are foundation courses for Business studies. They are compulsory for all students who intend to complete the Bachelor's Degree course in Administration and must be passed for graduation purposes.

Students of the Faculty of Computer & Information Systems on the other hand must embark on the core and elective courses of their degree option direct without taking the General/Basic courses.

4.8 Structure of the Programmes

Data Link Institute offers a four year programme in two faculties and awards a B.Sc. (Hons.) degree to students on successful completion of their programmes. The academic year is made up of two semesters. A semester is made up of 16 weeks, spread over 14 weeks of lectures, one week of assisted revision and one week of examinations. Conceptual units of courses are examinable at the end of every semester.

In addition to the two semesters of the academic year, there is also a Summer School session used for specific programmes. The session runs for ten (10) weeks, commencing from fourteen (14) days after the end of the academic year and ending fourteen (14) days before a new one begins.

The Session is an opportunity for both prospective and enrolled students to upgrade and/or refresh themselves academically for the following purposes:

- For a candidate without the basic academic credentials to brush up to gain admission to level 100 the following academic year;
For a student to remedy his/her grade deficiencies; and

For a student to re-tool him/herself for better performance in the upcoming semester.

The organisation of the Summer School session shall be at the discretion of the Dean of Academic Affairs and shall be organised on demand and cost effectiveness basis. It shall be subject to the approval of the Academic Board and guided by regulations that the board may from time to time impose.

The required examinations at the end of the summer session shall be held on the last day of classes of the respective courses.

4.9 Course Coding and Numbering

All courses have letter and number codes beginning with four letters signifying the faculty/subject followed by a three-digit number in ranges according to programme levels as illustrated below:

| Level 100 Courses | 100 |
| Level 200 Courses | 200 |
| Level 300 Courses | 300 |
| Level 400 Courses | 400 |

The first digit is the year or the level, the second digit is the semester and the third digit is the serial number of the course in the semester.

Illustration:
CSIS112 refers to Computer Science and Information Systems level 100 semester 1 serial number 2 course.
ADMK123 refers to Business Administration Marketing option level 100 semester 2 serial number 3 course.

Each programme of study consists of courses for which a number of credit hours is prescribed. Each course will normally cover a period of not more than 1 semester with the exception of project work.

Credit Hour is defined as 60 minutes lecture period or its equivalent. Course Credit is defined as one hour lecture, one hour tutorial, one practical session (of 2 to 3 hours) or, 6 hours of field work every week.

4.10 Mandatory Minimum and Maximum Credit Hours

Students will be required to follow the approved course of study over the prescribed period. The workload for full-time students is as follows:

<table>
<thead>
<tr>
<th>Faculty of Business Administration</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty of Computer &amp; Information Systems</td>
<td>15</td>
<td>24</td>
</tr>
<tr>
<td>A student may, on application, be allowed to study for the Bachelor’s degree on part-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
time basis. Such a student will be allowed to carry a workload below the minimum prescribed for full-time students but will be required to complete the degree programme within the periods specified below.

The total number of credit hours required by a student to qualify for a degree is:

- BSc (Hons) Admin. **140** (or **106** for students directly admitted to level 200) and **69** for students directly admitted to level 300
- BSc (Hons) Computer & Information Systems **166**
- BSc (Hons) Information and Communication Technology **166**

This is inclusive of lecture time, practical work, long essay/project writing, seminars and workshops.

4.11 **Duration of Study Programme**

The minimum period for the completion of a Bachelor’s degree is eight (8) consecutive semesters or four (4) consecutive academic years. The maximum period is twelve (12) semesters or six (6) years.

A student who is not able to complete the study programme within the maximum period will lose credits accumulated and his/her studentship will be cancelled.

The minimum and maximum periods of registration are calculated from the date of first registration.

4.12 **Deferment of Programme**

A registered student may interrupt his/her studies for tangible reasons for up to a maximum of one year with the appropriate written permission. Request for interruption of studies is normally granted within the first 4 weeks of the start of the semester.

Upon return from deferment and resumption of studies, the student is expected to fulfil all prerequisites and requirements proceeding to the next academic year/semester.

A student who interrupts his/her studies for more than 2 consecutive semesters will be deemed to have abandoned his/her studentship and will be de-registered from the Institute.

4.13 **Grading System (Evaluation)**

In keeping with dialogue education and problem-based learning systems, students will be assessed on an on-going or continuous basis, in that much attention will be given to regular assessment of performance of students throughout the semester, more than results of the end of semester final written examination. Regular and punctual attendance at lectures or seminars is therefore expected. Each course will normally be examined by a written paper of between one and three hours, in addition to which there may be a practical paper and/or an oral examination.

Faculty members shall not use a single grading element or grading event during a course to determine the final grade of a student, even where the objectives for the
course are narrow and focused. A faculty member’s course outline shall clearly outline how the final grade of a student shall be computed.

The Continuous Assessment component consists of take-home assignments, class quizzes and tests, term papers and project work. This component gives students the chance to demonstrate their abilities on a wider variety of learning tasks and broader variety of work environments than is possible under formal examination conditions.

The grading components for a given course shall be dictated by the nature of the course in question. The Institute, however, prescribes the following grading components that may be generally followed. Any changes to this may be made only with the written approval of the department head and brought to the knowledge of the Dean of the School.

4.13.1 Grading Components

i). Assignments, Projects and Presentations 10%
ii.) Class Tests and Quizzes 10%
iii). Mid-Semester Examinations 20%
iv). End-of-Semester Examinations 60%

The first three constitute Continuous Assessment

4.14 Duration of End-Of-Semester Examinations

The duration of end-of-semester examination is determined by the credit weighting of the course.

Time allotted to examination papers is as follows:

<table>
<thead>
<tr>
<th>Credit Course</th>
<th>Time Allotted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Credit Course</td>
<td>1 – 1.5 hours</td>
</tr>
<tr>
<td>2-Credit Course</td>
<td>1.5 – 2.5 hours</td>
</tr>
<tr>
<td>3-Credit Course</td>
<td>2 – 3 hours</td>
</tr>
</tbody>
</table>

4.15 Grading Scale

The Institute letter grades and numerical weightings (Grades Points) corresponding to the letter grades. The numerical weightings reflect the quality of performance. The raw scores are converted according to the scheme below:
4.15.1 Definition of Grades

**Pass Grades:** Grades A to C constitute Pass grades.

**Failure Grade:** Grade F constitutes Failure in which case the student must retake the paper.

4.15.2 Other Letter Grades: I, X, Z, Y

**Grade I** (for Incomplete) shall be awarded to a student who is unable to complete a course for reasons adjudged by the Board of Examiners as either satisfactory or unsatisfactory. Such a student shall be expected to complete the course the very next time it is available. That grade may also be assigned if a student’s work in a course is of passing quality but is incomplete due to circumstances beyond his/her control, such as illness. To receive an authorised grade of incomplete (I), a student must have the written approval of the Dean of Faculty and the lecturer prior to the deadline for submission of semester grades. An incomplete grade in such a case must be replaced by a final grade by the first day of the following semester failing which the result will convert to a failure (F).

**Grade Z** denotes Disqualification from an examination as a result of an examination malpractice or offence and shall be awarded whenever it is established that a candidate had attempted to gain an unfair advantage in an examination, be it in a Principal subject or an Auxiliary or any other paper. A candidate awarded a grade Z may be debarred from taking a University Examination for a stated period, or indefinitely, or may be expelled from the University altogether. A grade Z may be awarded only by the Board of Examiners.

**Grade Y** (for Continuing) shall be awarded at the end of a semester to any student who is taking a course, which continues into the next semester.

**Grade Point (GP):** Each Letter Grade is assigned an equivalent Credit Value as indicated above. The number of grade points earned by a student, for each course completed, is computed as the product of the number of credits for the course and the grade point equivalent letter of the grade obtained in that course.
Cumulative Grade Point Average (CGPA): The student’s cumulative grade point average is calculated by dividing the total number of grade points obtained by the cumulative number of credits, up to any specified time (including the end of the programme).

4.15.3 Calculation of Grade points

Grade Point (GP): For each (letter) Grade there is a corresponding credit value as indicated above in table 1.15.1. The grade points earned by a candidate for each course completed is computed as the product of the number of credit hours for the subject and the credit value of the corresponding letter grade obtained in the subject.

Grade Point Average (GPA): The Grade Point Average is obtained by dividing the sum of the grade points obtained by the total number of credits hours (CH) of subjects registered. A participant does not earn the credits for a failed course even though the credit units for the course are used in computing the GPA.

Cumulative Grade Point Average (CGPA): A student’s cumulative grade point average is calculated by dividing the total number of grade points obtained, up to any specified time, by the total number of credits for all courses/subjects for which the participant has registered up to that time.

Final Grade Point Average (FGPA): The FGPA is the CGPA for all courses for which the candidate has registered up to the end of the academic programme.

4.15.4 Sample Calculation of Grade Point Average

Example: For a student offering Business Administration,

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Course</th>
<th>Credit Hour</th>
<th>LG</th>
<th>CV</th>
<th>GP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSIS 111</td>
<td>3</td>
<td>C+</td>
<td>2.33</td>
<td>6.99</td>
<td></td>
</tr>
<tr>
<td>ECON 150</td>
<td>3</td>
<td>B+</td>
<td>3.33</td>
<td>9.99</td>
<td></td>
</tr>
<tr>
<td>ADMN 108</td>
<td>3</td>
<td>C</td>
<td>2.00</td>
<td>6.00</td>
<td></td>
</tr>
<tr>
<td>FREN 111</td>
<td>3</td>
<td>A-</td>
<td>3.67</td>
<td>11.01</td>
<td></td>
</tr>
<tr>
<td>ADMN 102</td>
<td>3</td>
<td>B-</td>
<td>2.67</td>
<td>8.01</td>
<td></td>
</tr>
<tr>
<td>SOCI 115</td>
<td>3</td>
<td>B+</td>
<td>3.33</td>
<td>9.99</td>
<td></td>
</tr>
<tr>
<td><strong>18 TCH</strong></td>
<td></td>
<td><strong>Total Grade Points = 51.69</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Grade Point Average = \[ \frac{\text{Total Grade Points}}{\text{Total Credit Hours}} \]

\[
= \frac{[3 \times 2.33] + [3 \times 3.33] + [3 \times 2.00] + [3 \times 3.67] + [3 \times 2.67] + [3 \times 3.33]}{18} \\
= 51.69/18 = 2.87 = \text{Grade B [Very Good]}
\]

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Course</th>
<th>Credit Hour</th>
<th>LG</th>
<th>CV</th>
<th>GP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSIS 122</td>
<td>3</td>
<td>C</td>
<td>2.00</td>
<td>6.00</td>
<td></td>
</tr>
<tr>
<td>FREN 112</td>
<td>3</td>
<td>C+</td>
<td>2.33</td>
<td>6.99</td>
<td></td>
</tr>
<tr>
<td>MATH 114</td>
<td>3</td>
<td>C+</td>
<td>2.33</td>
<td>6.99</td>
<td></td>
</tr>
<tr>
<td>ADAC 124</td>
<td>3</td>
<td>C</td>
<td>2.6</td>
<td>00</td>
<td></td>
</tr>
<tr>
<td>STAT 128</td>
<td>3</td>
<td>B+</td>
<td>3.33</td>
<td>9.99</td>
<td></td>
</tr>
<tr>
<td>ADMN 206</td>
<td>3</td>
<td>A-</td>
<td>3.67</td>
<td>11.01</td>
<td></td>
</tr>
</tbody>
</table>

37
Grade Point Average = Total Grade Points/Total Credit Hrs

\[
= \frac{[(3 \times 2) + (3 \times 2.33) + (3 \times 2.33) + (3 \times 2) + (3 \times 3.33) + (3 \times 3.67)]}{18}
\]

= 46.98/18

= 2.61 GRADE C+ (Good)

4.15.5 Sample Calculation of Cumulative Grade Point Average

Using the example above,

\[
\text{CGPA} = \frac{[1^{\text{st}} \text{ semester Total Grade Points} + 2^{\text{nd}} \text{ semester Total Grade Points}]}{\text{Cumulative Credit Hrs (CCH)}}
\]

\[
\text{C.G.P.A.} = \frac{[51.69 + 46.98]}{36} = 2.74 \text{ (Grade B-)}
\]

4.16 Student in Good Standing

A Cumulative Grade Point Average (CGPA) of 2.0 or better is necessary at any point in time, to maintain a normal student status at the Institute.

A student in good standing shall be one whose CGPA is at least 2.0 (Grade C) at the end of a semester.

4.17 Progression from One Semester to Another

To progress from semester to semester (and hence from level to level), a student must:

i) Attain a minimum CGPA of 2.0.
ii) Accumulate the required minimum credits for the semester.
iii) Not obtain below C in more than two (2) courses.

A student whose CGPA falls below the 2.0 level at the end of a semester, shall be placed on academic probation.

4.18 Probation

Probation means repeating failed courses and, where possible, making up the workload with the appropriate courses for the next level. A student on probation will retain the lower Level Status until he/she meets the requirements for progression. While on probation, a student may replace the course(s) he/she is repeating if the course(s) are not compulsory or required. Academic counseling shall be provided for students on probation, for the purpose of guiding such students to make effective course management decisions.

If a student has a CGPA of less than 2 in two consecutive semesters he/she shall be required to repeat the academic year.
4.19 Trailing
To trail a course means to carry the course over to a subsequent semester or academic year. A student who obtains below grade C- at any final examination shall repeat that course. A student who obtains grade C- at any final examination shall re-write that examination before the commencement of the following semester to remedy the deficiency, failure of which he/she will have to repeat the course(s). A repeating student shall lose the credit(s) obtained already in that course(s).

In computing the results of re-sit examination, continuous assessment will count as in the original assessment. If a student passes a re-sit examination, the # symbol will appear next to the grade for each occasion the course was taken on the student’s transcript but only the most recent grade will be used in the computation of his/her CGPA.

A student may not trail more than two (2) courses at the same time during the programme. A student in such a situation may have to change his/her status as full-time to part-time student with the consequent reduction in workload (not below (12) Credits per semester) to be recommended by the Head of Department with the approval of the Dean.

If a student has a semester CGPA of less than 2.0 in two consecutive semesters he/she shall be subject to academic disqualification. The student shall be asked to repeat the academic year and advised to register as part-time student with the necessary reduction in workload.

4.20 Eligibility for the Bachelor’s Degree
The student has the ultimate responsibility for meeting Institute, faculty and departmental graduation requirements. A Bachelor's Degree appropriately designated shall be awarded to a candidate who has been properly admitted to the Institute, and who has followed the approved courses of study over the prescribed period and has satisfied the following conditions:

- Discharge of all financial and other obligations owed to the Institute;
- Pass all compulsory courses including general/required/prescribed and core courses;
- Accumulate a minimum of 140 credits (a repeated course cannot be counted twice in computation of the minimum number of courses);
- Attain a minimum Cumulative Grade Point Average (CGPA) of 2.0; and
- Be in good standing, not barred for disciplinary reasons.

4.21 Attachments and Final Year Projects
In Level 200 or Level 300, a student is required to embark on an Internship or Attachment period, usually in the summer holidays. Students must coordinate with their Heads of Department and prospective employers to ensure that the Attachment is completed successfully. During the attachment, students are to compile reports which will be submitted to their Heads of Department or assigned Supervisors. The attachment course carries an academic weight of 3 credit hours. The Head of Department and/or the assigned Supervisors must verify that the student actually embarked on the attachment effectively.
Similarly, in the final year (Level 400), every student is required to complete a final year project and written thesis, comprising literary components such as introduction, literature review, methodology, discussion of results, and conclusions. The final-year project will be externally examined by a visiting Professor, currently from KNUST. The final-year project and thesis carry an academic weight of 6 credit hours, spread over two semesters.

A student is not deemed to have completed all degree requirements until the attachment and final-year project and thesis are completed and orally defended. This means, for example, that a student who has not completed the final thesis, is not qualified to graduate.

4.22 Classification of Degree

Undergraduate degrees are classified according to the candidate’s **Cumulative Grade Point Average (CGPA)** as at the end of the programme.

The degree classifications are as follows:

- **First Class** - CGPA of 3.6 - 4.0
- **Second Class (Upper Division)** - CGPA of 3.0 - 3.59
- **Second Class (Lower Division)** - CGPA of 2.3 - 2.99
- **Third Class** - CGPA of 2.0 - 2.29

Candidates may not attempt any level 400 examinations leading to the award of a Bachelor’s Degree with Honours for more than once. A candidate who re-writes or repeats any level 400 examinations will be awarded the degree without Honours.

4.23 Graduation Ceremonies / Presentation of Awards

Following confirmation of an award of a degree, the candidate shall be entitled to be awarded a certificate of the appropriate Bachelor's Degree under the seal of the Institute at a Congregation of the Institute assembled for that purpose. Alternatively, at the written request of a student, the certificate may be collected by a third party or sent by registered post. The certificate shall indicate the programme and the class in which the degree is awarded, with or without Honours.

At the time of writing this edition of the Student Handbook, DLI is affiliated to the Kwame Nkrumah University of Science and Technology. As a result, the degrees and certificates of DLI will be conferred and awarded by KNUST until such a time that DLI becomes chartered as an independent and a full-fledged University.

Attendance at graduation ceremony is optional for graduating students, although payment of the applicable graduation fee is mandatory.
4.24 Cancellation of an Award

Notwithstanding previous confirmation of an award of a degree and presentation of the certificate thereof, the Academic Board may at any time cancel an award, even with retrospective effect, if it becomes known that:

- A candidate had entered the Institute with false qualifications;
- A candidate had impersonated someone else to fraudulently obtain good academic standing;
- A candidate had been guilty of an examination malpractice for which a grade Z would have been awarded; or
- There are other reasons that would have led to the withholding of confirmation of the award in the first place.

In any such event, the decision of the Academic Board shall be published on the Institute Notice Board and the candidate notified. Such cancellation and the reasons for it shall be entered on the candidate's transcript.

4.25 Academic Transcripts

Actual degree achievement is shown only by an official certificate or an official transcript showing completion of requirements. At the end of a student's programme, the Institute shall, on the payment of an appropriate fee, issue to the particular student a complete transcript of his/her academic record in respect of only programme(s) undertaken by the student at Data Link Institute. It will reflect all courses taken or attempted by the student (including audited courses, if any) and the grades earned. The transcript shall be marked Student Copy. Under normal circumstances, transcripts will not be issued to a third party without the written authorisation of the student.

4.26 Dating of Degrees

Students will be recommended for their degrees at the end of the semester in which they complete their requirements. Long Essay/Project Work, wherever applicable, shall be submitted for assessment before the date of the last examination paper in the semester of completion. In default, the candidate shall be asked to submit the Long Essay/Project Work the following semester and shall be treated as a Repeat Examination, with all its implications.
5 CHAPTER FIVE – INSTITUTE’S EXAMINATIONS

5.1 Examination Regulations
Examination for the degrees, diplomas and certificates of the Institute shall be held at times to be determined by the Academic Board. An end-of-semester examination shall normally be required as a part of every course. An examination schedule showing time and place of examination for each course shall be published each semester.

The Academic Board shall make regulations for the standard of proficiency to be attained and decide which persons have reached that standard of proficiency in each examination for a degree, diploma, certificate or other awards of the Institute. The Board shall appoint an External Examiner in each subject to assist in the assessment of student performance beyond Level 200. Normally the External Examiner’s assessment shall not be overruled by the internal examiners, but the final decision shall rest with the Academic Board.

Each course, with the exception of a Project, shall normally be completed in one semester. All students are required to submit assigned work and to take assigned tests on specified dates. Failure to do so will normally result in an award of ‘F’ for such work. Any student who fails to complete practical work, research project, and/or relevant field work may be awarded an incomplete grade, “I”. If the student fails to complete the work by the commencement of the following semester, the incomplete portion of the incomplete grade will automatically become an F grade.

5.2 Repeat Examinations
A student may decide to re-register for and repeat a failed course on a future occasion. If he/she repeats the course and passes its examination, he/she shall be awarded the full grade earned on that occasion. The student's transcript will show the number of occasions the candidate took the examination for that particular course and the grades earned on all such occasions.

5.3 Eligibility for Examinations
A student should attend all such lectures, tutorials, seminars and practicals and undertake all other assignments as are approved by the Institute.

Each Department shall, with the approval of the Academic Board, determine the requirements for the courses they offer. A student who does not fulfil the requirements for any course shall not be allowed to take the examination for that course. In any case, a student who is absent for a Cumulative Period of 25% from all lectures, tutorials, practicals and other activities prescribed for any course in any semester shall be deemed to have withdrawn from the course. Such a student shall normally not be permitted to sit for the semester examination.

5.4 Institute Examiners
In every subject or group of subjects in all examinations for the degrees, diplomas and certificates of the Institute, there shall be at least two examiners who shall be jointly
responsible for all papers, marks, and decisions in such a subject or group of subjects. Of these examiners at least one shall not be a member of the academic staff of the Institute.

The External Examiners of the Institute shall be appointed annually by the Academic Board. They shall be eligible for reappointment on an annual basis, provided that no External Examiner shall hold office for more than four consecutive years.

Members of the full-time teaching staff of the Institute are examiners ex-officio in the subjects they teach and shall be required to play such part in the Institute examinations as may be approved by the Academic Board and the Board of the Faculty concerned.

An essay submitted in complete or partial fulfilment of the requirements for a degree or other qualification shall, except where acknowledgement to the contrary is indicated as part of its content, be the original work of the candidate. An essay which has previously been submitted for an academic award of this or any other institution shall not be accepted. The student must pay special attention to penalties for plagiarism, and submit only original work.

If a candidate is prevented by illness, disability, death, or other sufficient cause from attending the whole or part of the final examination for a degree, diploma or certificate, the Academic Board, after consideration of a report from the Internal and External Examiners concerned and upon such further evidence and subject to such conditions as it shall think fit, may make decisions concerning the academic fate of the student on a case-by-case basis.

5.5 Attendance of Examiners at Examinations
An examiner, or in his absence, a representative, from the department concerned who is knowledgeable about the contents of the question paper, must be present in the examination room for ten minutes before the examination is due to begin and ten minutes thereafter. Before the examination begins, the examiner shall check his papers for any errors. If there are any amendments to be made, he shall inform the invigilator who will normally make the necessary announcements.

Before leaving the examination room, the examiner shall inform the invigilator where he may be contacted in the Institute for the duration of the examination, in the event of a need for clarification on any questions or issues from a candidate on his paper.

5.6 Invigilation of Examinations
It is the responsibility of invigilators to supervise examinations in accordance with the regulations for the conduct of examinations. Invigilators who suspect that breaches of examination regulations have occurred will inform the Registrar in writing and warn the candidate, who shall normally be permitted to complete the examination, that such a report will be made.

All invigilators must be present in the examination room to which they have been appointed from at least 10 minutes before the commencement of the examination until all answer scripts have been removed from the examination room after the conclusion of the examination. Invigilators are responsible for checking attendance, distribution
of question papers before the commencement of each examination, for arranging the collection of answer scripts from each candidate and for checking and entering on the Room Report.

At the time scheduled for the start of the examination the Invigilator shall:

- Make an announcement to the effect that candidates must verify that they possess the correct paper;
- Ask candidates to study the examination instructions carefully;
- Make other necessary announcements.

Invigilators are not permitted to smoke in an examination room and must not permit other persons to do so. Instructions to invigilators shall be published annually by the Registrar, setting out details of the procedures to be followed in the conduct of examinations. All staff shall be trained on examination invigilation procedures.

### 5.7 Registration for Examinations

Registration for an Institute Examination shall require endorsement of the Registration List by the Head of Department to the effect that the candidate has satisfactorily pursued the approved course(s) of study in each subject being offered over the prescribed period. A candidate's registration shall not be valid unless it is so endorsed.

Endorsement shall be withheld if a candidate is not deemed to have satisfactorily completed the approved course of study. In the event of a withheld endorsement, the Head of Department shall request the appropriate Faculty Board to confirm the action taken.

After the registration deadlines of each semester, the lists of registered candidates shall be forwarded to the Office of the Registrar before the end of the sixth week of the semester. These lists shall be deemed as constituting final registration for end-of-semester examinations. This means that by the end of the sixth week, students whose names do not appear in any course list shall not be allowed into the end-of-semester examination for that particular course.

Similarly, students who are duly registered for a course but who fail to take the end-of-semester examination for that course shall be deemed to have absented themselves from the examination of that particular course, for which grade X shall be awarded.

### 5.8 Examination Instructions to Candidates

A candidate for the Institute examination must have followed the approved course as a regular student over the required period and must have registered for the examination. Entry to the examination shall be by registration on a form on which the papers to be written shall be indicated by the title. The Registration Form duly endorsed by the Head(s) of Department shall be submitted to the Registrar not later than 6 weeks after the commencement of the semester.

A candidate shall not be admitted to Institute examinations if:
• He/she has not been entered for that examination.
• The subject of the examination has merely been audited.
• He/she owes fees to the Institute or the Hostel.
• He/she is under suspension or has been dismissed from the Institute.

A candidate may be refused admission to an Institute examination if he/she reports to the Examination more than half an hour after its commencement.

An examination candidate shall not bring to the examination centre or to the washroom of the examination centre or in the immediate vicinity of the examination centre any book, paper or written information or cellular mobile phones or other unauthorized material. Any such material shall not be deposited at the entrance to the examination room or the washroom or in the immediate vicinity of the examination centre. No student shall enter the examination room until he/she is invited to enter the examination room.

Any candidate who is seen with lecture notes or a book or cellular/mobile phones or any unauthorized material in the examination centre or in the immediate vicinity of the examination centre before the commencement of the examination shall be deemed to have committed an offence and shall be banned from the examination and awarded a grade X for that paper.

A candidate shall uphold the highest standard of civility and courtesy in an examination centre. A candidate who flouts the instruction(s) of a chief invigilator or invigilator or misconducts himself/herself in any manner to an examination official at an examination centre commits an offence. Such candidate shall be dismissed from the examination and awarded a grade X in that paper.

A candidate who is suspected of hiding unauthorized material on his/her person may be asked by the invigilator to submit to a body search. Refusal to submit to a body search is tantamount to misconduct.

An examination candidate shall, for the purpose of identification by the chief invigilator/invigilator, carry a student identity card on the examination table to enable the invigilator ascertain the identity of the person writing the examination. The Chief invigilator shall reserve the right to refuse any candidate without an identity card entry to an examination.

No communication between candidates is permitted in the examination hall. Consequently, a candidate shall not pass or attempt to pass any information or instrument to another during an examination; he/she shall not copy or attempt to copy from another candidate or engage in any similar activity; and he/she shall not disturb or distract any other candidate’s attention during an examination. Candidates may request the attention of the invigilator by raising their hands.

Smoking or drinking of alcoholic beverages is not allowed in the examination room. Candidates may leave the examination room temporarily, and only with the express permission of the invigilator. In such cases, the invigilator will be required to re-ascertain that a candidate does not carry on his/her person any unauthorized material upon re-entry into the examination room. An attendant designated by the invigilator
will accompany a candidate who is allowed to leave the examination room temporarily while outside the examination room.

A candidate who finishes an examination ahead of time may leave the examination room after signing out and surrendering his/her answer books. The candidate shall not be allowed to return to the examination room. At the end of each examination, invigilators must ensure that candidates do not take away any answer books, supplementary sheets, whether used or unused, or any other official materials provided for the examination from the examination room. Candidates must not in any way interfere with the stapling in the answer books. Any complaints about the answer books should be brought to the attention of the invigilator.

A candidate who fails to be present at an examination without any satisfactory reason shall be awarded a grade X in that paper. The award of grade X in a required paper means failure in that paper. The following shall not normally be accepted as reasons for being absent from any paper of Institute Examination:

- Misreading the time-table;
- Forgetting the date or time of examination;
- Inability to locate the examination hall;
- Inability to rouse oneself from sleep in time for the examination;
- Failure to find transport;
- Loss of a relative;
- Pregnancy, unless it is certified by a medical doctor to make the writing of test or examination impossible or inadvisable.

A breach of any of the foregoing regulations made for the conduct of University Examination may attract one or more of the following sanctions:

- A reprimand;
- Loss of marks;
- Cancellation of a paper (in which case zero shall be substituted for the mark earned);
- Withholding of results for a period;
- Award of grade X.

Further to the above, a grade Z leading to disqualification in that paper, shall be awarded wherever it is established that a candidate had attempted to gain an unfair advantage in an examination. Further sanctions may include:

- Being barred from Institute examination for a stated period;
- Being barred from Institute examination indefinitely;
- Suspension from the Institute; and
- Expulsion from the Institute.

5.9 Deferment of Examinations on the Grounds of Ill-Health

A student who has satisfied all the requirements as prescribed but is unable to take the examination on grounds of ill-health shall, on application to the Registrar within three working days of the examination, and on provision of a valid medical certificate issued by the University’s accredited Medical Officer, be allowed to defer the semester
examinations, and shall be allowed to take the examination at the next offering. Subsequent applications for deferment, on grounds of ill health, shall be subject to a medical certificate issued by a properly constituted Medical Board.

5.10 Deferment of Examinations on Grounds other than Ill-Health

Examination may also be deferred by reasons other than health. Such reason include work schedule, official trips, or other valid but non-health-related reason. A student who will be unable to take a final examination for these reasons must present a request in writing, to the Office of the Registrar, at least two (2) weeks (14 days) before the said examinations. The Registrar will review the applications with the examiners Board, case by case, and advise the student in writing as to whether the deferment is approved or otherwise. If the request is not granted, the student would be required to write the examination(s), a student who has applied for the deferment but has not received feedback from the Office of Registrar must make arrangement to write the affected examinations as previously scheduled.

Every such deferred course shall receive a temporary I-grade (incomplete). The affected examination(s) must then be written at the next available opportunity; otherwise the student would be awarded an F-grade for not writing.

5.11 Illness / Disability at an Examination Room / During Examination

Any candidate who considers that his examination performance may have been impaired by ill-health or any other form of disability shall be required to inform the head of the department responsible for the programme in writing within three working days of the examination. The letter shall be accompanied by a medical certificate or other relevant report. If an invigilator or an examiner considers that a candidate’s performance may have been impaired by ill-health, he/she should write the circumstances on the front cover of the examination book and the examiner shall inform the Chairman or Secretary of the Board of Examiners.

Wherever possible, examinations will be taken by candidates in recognised examination rooms and efforts will be made to avoid the necessity of making special examination room arrangements elsewhere.

Where a candidate is unable due to illness or temporary disability to sit for an examination at the published venue, arrangements will be made, if feasible, for the examination to be held at an alternative venue.

Where a request is made for the examination to be taken at a hospital, approval of the request will be dependent upon the provision of suitable facilities by appropriate officers of the University and the affected hospital and attending medical practitioners.

In a case where a candidate leaves the examination venue temporarily because of illness or any other disability but continues to remain under supervision, the invigilator will be required to enter in the candidate’s answer book the time of departure and where appropriate, subsequent return, and to sign against these entries.

5.12 Physically Challenged Candidates

A physically disabled candidate may be permitted to use a computer-based word processing package or dictate his answers to an amanuensis. The use of a tape
recorder will not be permitted.

5.13 Examination Malpractice or Offence

Examination offences shall be understood to include any attempt on the part of a candidate to gain an unfair advantage, and any breach of the Examination Regulations and Instructions to candidates including refusal on the part of a candidate to occupy an assigned place in an examination room, any form of communication with another candidate, possession of a book, paper or written information of any kind except as required by the rules of a particular examination, smoking, leaving an examination room without permission, or refusal to follow instructions.

The Chief Invigilator or any examiner shall, as soon as practicable, report to the Registrar through the Dean of Faculty, any instance of a breach of Examination Regulations. In respect of offences occurring outside the precincts of an examination room, the Dean shall cause an enquiry to be made into any reports that reach him and submit his findings to the Registrar, who will pass the information to the Board of Examiners.

The Board of Examiners shall review all reports received in connection with an examination malpractice or an offence. Based on its review, the Board of Examiners may impose sanctions involving loss of marks in a particular paper. A grade of Z shall be awarded wherever it is established that a candidate had attempted to gain an unfair advantage in an examination, be it in a principal subject, an ancillary, or any other paper or has misconducted himself/herself in an examination. Such a candidate may be debarred from taking an Institute examination for a stated period, indefinitely, or expelled from the Institute.

In all instances of examination malpractices or offences, a formal report shall be made to the Academic Board as soon as practicable. The Academic Board may review all such reported cases and may vary the sanctions as it thinks fit.

5.14 Determination of Grades

Several factors, such as scores in oral and written examinations, oral or written tests, practical and written projects, papers, reports, laboratory practical, skills demonstration (although skills demonstration may be the sole factor in grade determination for some courses), theses/dissertation, and class attendance/participation are used by lecturers as components/events to constitute the final grade result for a student in a particular course.

The authority to determine grades rests with the faculty member(s) who taught the course or substitute lecturer(s) assigned by the relevant department Head or the Dean (where the regular lecturer is unavailable) to act in that capacity as member(s) of Board of Examiners of a faculty.

It is the function of the department Head and Faculty Dean to ensure that every faculty member who has been assigned to teach a given course has a carefully drafted grading policy for that course and that the students who take that course are fully informed in writing of the grading policies and procedures for it.
5.15 Method of Assigning Grades

In order to avoid a charge of carelessness, arbitrariness or capriciousness, the faculty member shall be expected to assign grades in a professionally responsible way by taking into account the criteria of his/her department and the following safeguards:

- Describe the method of assigning grades in the published course outline given to each student enrolled for the course and also filed in the Department Head’s office prior to the beginning of the semester in question.
- The method of grading could include such matters as percentages used within the University’s grading system, final grade determination as a weighted component of tests, examinations, research projects, practicals, reading reports and written assignments.
- Mark examinations, or tests, etc., according to a written marking scheme that the lecturer has drawn up and on which there is a clear indication of the assignment of points. A lecturer shall be required to keep a copy of such a marking scheme in the course file and examination booklet archives for five calendar years from the time that the tests, or examinations, were taken. The written key shall be evidence that the assignment of a grade is done by certain criteria and not capriciously, or with a favour.
- Copies of all marking schemes shall be lodged with the Registrar at the time of the submission of the semester examination question papers to which they relate.
- Ensure that returned graded material to students such as tests and other written assignments show the assignment of points according to the marking scheme (or where appropriate, adherence to published guidelines) for given thoughts or, where appropriate, responses other than the overall grade for each.
- Keep a record of any changes to course requirements and special provisions made for exceptional students.
- Inform students via the course outline what review and remediation opportunities are provided and allowed by the lecturer for all the students during a given semester.
- Consistently apply officially published grading policies on incompletes and examination resist.
- Preserve the lecturer’s grade record on file. The lecturer’s record of grades for a given course shall contain all the evidence on how the final grade for every student was computed. For legal purposes, records of grades must be saved in the Registrar’s Records Office for at least 5 years after the examination.

5.16 Grade Reporting

Data Link Institute follows the practice of issuing grade cards to students as well as to parents, sponsors, and others identified by the student at registration and who are entitled to such information. Because of the contractual nature of the arrangements with students and parents, faculty has an obligation to ensure that the grades are filed on time at the Head of Department’s office according to the published deadlines. The Institute may take appropriate actions against offenders.

Grades for a given course shall be recorded by the lecturer on the course reports provided, with the lecturer’s signature in ink and endorsed by the head of department. If the lecturer has left the Institute on a permanent basis all necessary actions must be taken by the head of department to ensure that the grades have been submitted.
Grades are to be submitted by the lecturer through the head of department within two weeks from the end of semester examination.

During the second semester, grades for prospective graduates must be reported to the head of department’s office by the published deadlines. Communication of grades shall be done on the special forms provided. After approval by the Academic Board, course lecturers may display or rank student grades in public during or at the end of a semester by the use of ID numbers only. Tests, examinations, or other graded material containing the names of students involved shall not be left in a public place for student collection.

5.17 Declaration of Results
The Registrar, before the commencement of the semester, shall normally publish results of semester examinations taken at the end of the previous semester. Results of all Institute examinations are published subject to the approval of the Academic Board.

5.18 Grade Review

5.18.1 Resolution of Grade Disputes
A student who disputes the grade obtained for a given course is to seek a resolution by following the procedure below (NB: each further step is taken only if the matter was not resolved in the previous step). Examination marks and papers moderated and marked by external examiners shall normally not be contested. Only in extreme cases and where the student has failed will the Academic Board permit remark of examination script subject to approved rules and guidelines. An application entered on a candidate's behalf by a person other than the aggrieved candidate shall not be entertained.

Complaints filed after 15 days have elapsed since a grade was given and/or a report card issued, or a written grade complaint that does not detail the evidence of, for example, carelessness, arbitrariness, or capriciousness, shall not be investigated.

5.18.2 Step 1: Resolution with the Lecturer
If the student reports dissatisfaction with the grade received and believes that an error has been made, he/she may discuss the situation first with the course instructor. The grade complaint is filed on a Grade Complaint Form within 15 days of the receipt of the grade and/or a grade report card has been issued. The lecturer has 15 days to respond to the complaint. The lecturer at this point discloses the manner in which the final grade was computed. This is done on the Grade Disclosure Form.

5.18.3 Step 2: Grade Rechecking
If the matter remains unsolved the student can appeal to the head of department who initiates the process of grade rechecking. A student at this stage files a grade complaint with a department head requesting a grade rechecking. The student must provide the head of department evidence for the belief that the grade was assigned as a result of any, or all, of the reasons such as, carelessness, arbitrariness, or capriciousness.

Grading Rechecking requires:
• The course instructor to provide details about how the grade earned by the student was computed. The head of the department and the course instructor to jointly recheck the paper.

• The Head of Department shall assign a Senior Internal Examiner to re-check the examination material and other course components. The assigned examiner will compile a report and make recommendations to the Head of Department after scrutinizing the student’s package.

• Finally, the head of department communicates to the student, Admissions and Records Office and the Academic Dean the outcome through a Grade Rechecking Result Slip.

A department head or the lecturer’s immediate supervisor shall only recommend or make a grade adjustment if his/her findings reveal that there is clear evidence of carelessness, arbitrariness, or capriciousness on the part of the lecturer. The department head or the lecturer’s immediate supervisor shall render a written report on his/her findings within a week if school is in session; if not, within the first week after school reconvenes.

5.18.4 Step 3: Remarking
If the matter still remains unsolved, it can be taken up with the Academic Dean. The Academic Dean orders the remarking of the paper by an external examiner.

The Institute undertakes the remarking of the paper on the payment of a fee by the student. Review shall not proceed until and unless the Review Fee is fully paid. The outcome of the remarking shall be communicated to the student through the Remarking Result Slip.

5.18.5 Step 4: Appeal to Academic Board
Under extreme circumstances, if the matter is unresolved, it shall be referred to the Academic Board whose decision shall be final. If it emerges that a complaint for review is frivolous or ill-motivated, the Academic Board may prescribe further sanctions which may include barring the complainant from Institute examinations for a stated definite or indefinite period.

5.19 Revision of Grades
Grade changes are made for “I” at the Director of Admissions and Record’s Office. Grades are to be changed in the appropriate grade book, initialled and dated by the lecturer and head of department. Should the lecturer have left the employment of the Institute, then the head of department takes the responsibility of the change.

Alterations to the official grade record are allowed only in cases where lecturer error is discovered, and not because of additional work completed since the grade was assigned. These errors are reported on the official Grade Change Form provided by the Director of Admissions and Record’s Office and must be signed by the lecturer and the head of department. A written statement of explanation must be included on this form, which is placed on file and shall be the basis for a corresponding correction in the record.
Only where authorized by the faculty member in writing, in the case of the faculty member's cessation of employment with the Institute, or the death of a faculty member, may grade changes be effected without the specific signature of the faculty member on the official grade form or appropriate official change of grade form. In such an event, the head of department of the relevant department may sign for the lecturer.

In no case should revision of grades be made without official approval and due process. In cases where the class is offered on an extension campus, the grade change must occur within two semesters following the semester in which the course was taken. Any resulting changes in the Grade Point Average subsequent to the issuing of the degree shall not be cause for revision of the degree.

6 CHAPTER SIX - ACADEMIC PROGRAM

6.1 BSc (Hons) Degree in Business Administration

2.31.1. Year 1

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Total Credit Hours 18

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Total Credit Hours 18
## Accounting Option

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### 2.31.5. Banking and Finance Option

#### Year 3

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## Human Resources Management Option

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### Marketing option

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### 6.2 B.Sc. (HONS.) BUSINESS ADMINISTRATION COURSE DESCRIPTIONS

#### FREN 111 French I  

3 Credits

This course provides students with the basic skills required to listening, speaking, reading and writing French. Also, the vocabulary of students is widened and the grammar becomes more demanding with careful attention given to the oral as well as the written aspect. The approach is essentially communicative. Topic areas includes; les salutations, les alphabets francais, les souhaits, les nombres cardinaux et ordinaux, la datte, la lecture de l'heure, la presentation, les articles, le genre d'un nom, conjugaison premiere partie "les verbes avoir, être, aller et faire au present simple de l'indicatif", moi-même.


56
ADMN 112  Critical Thinking and Logic  2 Credit

This course seeks to introduce students to critical thinking and logic. The purpose of this course will be to expose students to basic principles of critical thinking and logic and application of these principles in their everyday experience, especially in evaluating arguments and constructing arguments. Students will be provided with corrective and diagnostic skill set that enables students to discriminate logically between rhetorical ploys intended to manipulate people and arguments providing good logical reasons for believing a claim. Students will be required to recognise the contrast between inductive and deductive reasoning and the different types of support yielded by each, to evaluate the quality of evidence confirming an empirical hypothesis about human conduct, to maintain individual professional and scholarly discretion in the face of peer pressure and mob mentality. Students will be equipped with techniques to employ critical thought and practice within the academic arena and beyond. Topics to be covered include among others; claims, issues, values and ethics, arguments, perception, the scientific method, and fallacies.

Reading List


PSYC 111 Introduction to Psychology  3 Credits

This course aims at introducing students to the fundamental principles and elements of psychology and the various schools and perspectives of psychology. It will consider its applications to the working environment as well as in the general environment. The course will as much as possible help students to understand and relate these within the Ghanaian socio-cultural framework.

SOCI 111 Introduction to Sociology  3 Credits

This course introduces students to the principles of social organizations, the basis of social life, sociological framework, blocks of social organizations, their status and roles in the society, with their social hierarchy and different reward systems. Constitutions of society, cultural background of personality are all examined. Folkways, customs, economy, society, nature and imperatives of the social order, as well as agencies of social control are discussed.
CSIS 111 Computer Competence I 3 Credits
Computer Competence is designed to cover the key concepts of computing, their practical application and use in the workplace and society in general. It is broken down four topical areas, which are Word Processing, Spreadsheet, Presentations and Information and Communication. Upon successful completion, students must be able to demonstrate a satisfactory practical performance and understanding in the use of the computer software programmes.

COMM 111 Communication Skills 3 Credits
This course focuses on the elements and principles of communication within the work environment. It aims at familiarizing students with the linguistic skills and rules that must apply in the work place and so topics that shall fall within the purview of this course shall include letter writing, report writing, CV writing and presentation as well as the different forms of communication (such as language, presentation, etc) that are appropriate to different work settings. This course aims to help students present themselves in the most socially appropriate manner for the various positions and situations in which they may find themselves.

Reading List


Elizabeth Kuhnke (2013) Communication Skills For Dummies, For Dummies; UK Edition

ECON 111 Economics I (Micro) 3 Credits
This course deals with the decisions of individuals (households and firms) and how such decisions are influenced by economic forces. Specifically, the following areas are important: consumer behaviour; price theory (demand and supply analysis), price and output under perfect and imperfect market conditions; Pricing and Employment of Inputs and; General Equilibrium, Efficiency and Public Goods.

STAT 121 Statistics 3 Credits
This course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The four broad conceptual themes are exploring data, planning a study, anticipating patterns, and statistical inference. Upon successful completion of this module, students will be able to demonstrate a satisfactory performance in the following topical areas. Introduction to Statistical Methods, Graphing and tabulating data, describing data sets, central tendency, variability and skew, normal curve and standard scores, correlation and regression, proportions and contingencies, Sampling and statistical inference, Introduction to Probability; Random Event and Random Variables.

FREN 121 French II 3 Credits
This course is a continuation of FREN 115. Vocabulary is widened and the grammar becomes more demanding. Careful attention is given to the oral as well as the written aspects. The topic areas include: les articles partitifs, le pluriel d'un nom, les pronoms, les verbes,
conjugaison deuxième partie (le passé recent, le present continu, le futur proche, le passé composé, le futur simple), la phrase conditionnelle et les adjectifs qualificatifs.

**Reading List**


**CSIS 122 Computer Competence II**

This course is a continuation of Computer Competence I offered in the first semester. It will offer advanced modules of Word and Excel. Databases and Database Management particularly Access will be introduced.

**ADMIN 121 Essentials of Business**

Essentials of Business is to give students an understanding of the various types of organization, information and communication, researching, interpreting and manipulating information, theories of organization and management and the working environment. The subject matter is at introductory level and would be suitable for anyone entering the workplace and those intending to further their studies in the areas of business and management. The module covers a general introduction to personal communication skills for professionals and relates to the basic communication skills and concepts needed at the interpersonal level but also relates to the broader business information needs of organizations.

**ADMIN 122 Principles of Management**

This course presents the basis of Theory and Science of Management. Management is an art, which is best executed by the application of scientific fundamentals. The functions of management will be introduced – Planning, Organizing, Controlling, and Leading. This will provide a conceptual framework for students to understand the practice of management as well as the challenges and issues confronting Ghanaian management within the global context.

**ECON 121 Economics II (Macro)**

This course deals with the interactions within the whole economy, variables and agents and the effect on economic activity. It therefore looks at the broad aggregates of economic behaviour and demand by households, firms and the government. The relevance of these interactions with respect to business is emphasized.

**ECON 211 Economy of Ghana**

This course is a descriptive and an analytical study of the nature, structure and functions of the economy and production systems in Ghana. It discusses the agricultural and industrial production systems and the services sector. The objective of the course is to enable students place the Ghanaian economy and its production units or firms or business enterprises within the context of the world economic system.

**ADMIN 213 Fundamentals of Entrepreneurship**

The objective of the course is to introduce concepts, awareness, understanding and knowledge of entrepreneurship. It will focus on entrepreneur development in terms characteristics, opportunities and the use of functional management in entrepreneurial development. The topics covered in the course
include the concepts and challenges of entrepreneurship, the method to identify, study and select business opportunities, the business structure and regulations in Ghana, business plan, marketing plan, financial plan, operational management and quality control, human resource management and development and global and corporate entrepreneurship issues in the market.

**ADMN 211 Introduction to Corporate Governance & Ethics** 3 Credits
This course seeks to introduce students to the basics of corporate governance, raising awareness of the potential pressures and demands on those at the higher levels of decision making and their organizations. It also gives them an insight into measures for good corporate governance as well as how these principles of corporate governance are at the core of the growth in organizations and enterprises with reference to ethical issues in business and social responsibilities of organizations.

**ADMN 212 Introduction to Public Administration** 3 Credits
This course introduces students to the meaning of public administration and the basic principles of politics, economics, law and culture that underlie the practice of public administration within the Ghanaian context. The course also introduces students to the principles of public organizations as artificial creations by Man to use in achieving collective goals. Bureaucracy as an ideal type of organization is discussed. Communication as an important feature in the collective effort of organizations is also covered. Also discussed is the structure and functions of the Public Service of Ghana.

**MATH 211 Business Mathematics** 3 Credits
The course in business mathematics will cover Basic Algebra (Indices, Polynomials, Sets, Functions and Graphs) and Calculus (Differentiation, Integration, Functions of Several Variables, Matrices and Linear Equations, Sequences and Series). The emphasis will be on the application of the various concepts to the solution of business problems.

**ADHR 221 Introduction to Human Resource Management** 3 Credits
This is an introductory course, which exposes students to the preliminary principles of Human Resource Management. The course covers the functional areas of human resource management: recruitment, training, development, performance, compensation, resignations and retirement. It serves as a prerequisite for the other more advanced courses in HR.

**ADMK 221 Fundamentals of Marketing** 3 Credits
The Fundamentals of Marketing course is an introductory one. It is to expose students to the fundamental principles underlying marketing as a business undertaking. It is designed to teach the fundamental concepts and practice of modern marketing. As a general survey Fundamental of Marketing examines the major marketing activities, methods, processes, institutions, and practices from the viewpoint of their effects as exchange transaction linking producers with consumers.

Topics to be treated include planning marketing activities, market segmentation, and consumer behaviour, marketing mix elements (product, place, price and promotion). Specific areas of concentration include environmental analysis, strategic planning, marketing information systems and decision-making, consumer analysis, product design, pricing, placing, promotion and marketing management. The objective is to provide knowledge that will facilitate consumers' needs and wants identification and satisfaction while achieving organizational goals and ensuring society's well-being.

**ADMN 221 Business Law** 3 Credits
This is an introduction to General Principles of Law and its interpretation including limited coverage of business torts and crimes, source of law, conflict resolution, environmental law, consumer protection, substantial coverage of contract and sales law, real and personal property law, full coverage of commercial paper (negotiable instruments, notes, bills, drafts and cheques) law, with substantial review of agency and employment law, creditors and debtors’ rights, insurance, secured transactions, property and its use as security, succession partnership law, and will and trusts laws will
be made. The study of law has always attracted students of superior ability. Today’s business environment requires an in-depth knowledge of the hierarchy of the courts, customer, the legislative process, and the law of agency and the sale of goods. These will greatly enhance one’s ability to understand and cope with business practices today.

Industry, commerce, and government require adequate knowledge of legal principles to ensure prudent practice. In dealing with other business-minded entities, one must be conversant with the principles underlying the formation of contracts, the various vitiating factors that may tend to negate the contractual relationship, the termination or discharge of the contract. Also, our relationships with each other and the extent to which we can accommodate each other must be taken cognizance of these together with others contribute greatly to ensuring that prudent business practices are upheld.

**ADMN 222 Business Communication**  
3 Credits  
The course provides students with a theoretical and practical framework for understanding and conducting effective oral and written communication. Special emphasis is on business letter writing, memorandum and circular drafting, report development, presentation delivery, presentation technology, resume writing, interview skills, and web surfing and business proposal drafting.

**MATH 211 Quantitative Methods**  
3 Credits  
The course deals with the concepts and techniques of quantitative analysis commonly used in managerial decision making with focus on application. Topics include linear programming, calculus, financial mathematics, estimation theory, hypothesis testing, regression and correlation analyses, tie series and index numbers.

**ADAC 211 Principles of Accounting**  
3 Credits  
This is a foundation course that introduces students to the basic Principles in Accounting (Book-keeping). Areas to be covered include the Nature, role and principles of Accounting with emphasis on the Accounting Equation and the Balance Sheet, the double entry book-keeping; the general journal; the Books of Prime Entry (Daybooks); the Cash Book and the petty cash book; the Ledger and the nature of the Trial Balance. This course is also intended to familiarize the students with principles and methods of accounting primarily concerned with financial data gathering and presentation in the form of general-purpose external financial statements for sole proprietors. Specific areas include: Nature and Purpose of Accounting, Fundamentals of Accounting, Adjustments; Bank Reconciliation; the preparation of simple financial statements (Profit & Loss, Balance Sheet, Cash Flow statements) using the Trial Balance and accounting for non-profit making organizations.

**ADAC 221 Financial Accounting**  
3 Credits  
*Prerequisite: ADAC 211 Principles of Accounting*  
The course is a continued study of Financial Statements with much emphasis on its preparations. Areas covered include; cash flow statements; single entry and incomplete records; control accounts; accounting for fixed assets (depreciation); bad debt; correction of errors; manufacturing accounts; and introduction to partnership and company accounts.

**ADAC 311 Intermediate Accounting**  
3 Credits  
The course is a study of financial accounting theories and practices, leading to the preparation of financial statements in accordance with recent developments in accounting and reporting practices under generally accepted accounting principles. The philosophical framework of accounting is emphasized. Topics include partnership accounting with emphasis on the Ghanaian Partnership Law; and the study of specialized accounting topics such as Leasing, Hire Purchase Transactions, Joint Ventures and Investment Accounting.
ADMN 311 Company Law  
Organizations function within a specific legal environment, which seeks to regulate the compliances of the firm to social-economic aspirations of the country in which the firm is set up. Company Law therefore exposes students to the laws and statutes to which organizations must abide. It covers issues such as the source of company laws in Ghana, the purposes of incorporation, the types of companies under the companies’ code and the regulation of internal matters such as meetings and resolutions.

ECON 311 Managerial Economics  
Managerial Economics is designed to build on students’ existing knowledge of economic theory in practicing economics towards becoming more competent decision-makers and managers. The course focuses on the various frameworks for analyzing business decisions through the application of economic theory to business problems. Demand analysis, forecasting and estimation, consumer behaviour, optimization techniques, both unconstrained and constrained, are treated in an applied manner that promotes the development of principles applicable to general business decision making on daily basis.

CSIS 321 Computer Applications in Management  
The course is aimed at making students appreciate the application of computer-based tools to a particular line of work. Since businesses gather volumes of data/information, there is a need to computerize the filing systems to help track numerous business activities and help managers make quick and effective decisions. The course therefore focuses on capturing, storing, and accessing information with the help of chosen database management software such as Access.

ADAC 321 Cost and Management Accounting I  
This is an introduction to the basic principles of cost determination for, and control of, manufacturing and distributing activities. Topics include basic terminologies in costing; elements of cost, classification, cost behaviour, control, Cost accounts; job-order and process costing, accounting for materials, labour and overheads.

ADAC 322 Company Accounts  
Prequisite: ADAC 351 Intermediate Accounting  
This is an in-depth study of financial accounting theories and practices. Topics include the Regulatory Framework, Company Accounts with emphasis on the Ghanaian Companies Code, Branch accounting (excluding foreign branches), financial statement analysis, and specialized transactions including bills of exchange and consignments.

ADMN 321 Business Research Methods  
This course exposes and stimulates the interest of students in understanding and actively participating in different types of research work like the Descriptive, Explorative and Applied Research. The course introduces students to a range of approaches, strategies and methods and issues in Business Research through which they could tackle a research project in business and its related fields. This assists in introducing students to a more frequently used techniques and procedures for collecting and analyzing different types of data. The course examines issues relating to problem statement, hypotheses, theories, research assessment, research design, measurement and data collection, sampling, method of data analysis using the computer, research report writing and presentation.

ADMN 322 Introduction to Production Management  
The course focuses on the principles and practices related to production and service operations management. Topics covered include plant location, facility layout, capacity planning, production processes, work design, materials management, quality control, production control and associated analytical techniques.
ADAC 411 Auditing  
**Prerequisite: ADAC 311 Intermediate Accounting**
The course focuses on the auditor and his/her contribution to reliable financial and other data, including the following topics: internal controls, evidence of transactions, basic techniques of sampling and reconciliation, legal responsibility, standards of reporting, role of internal auditor and the gathering of audit evidence.

ADAC 412 Advanced Accounting  
**Prerequisite: ADAC 322 Company Accounts**
This course is a study of how group accounts are prepared (consolidations); expansions of companies, including the purchase of business and amalgamations; capital re-organization schemes and financial statement interpretation and analysis.

ADAC 413 Cost and Management Accounting II  
**Prerequisite: ADAC 321 Cost and Management Accounting I**
This is an advanced course that goes beyond the scope of Cost Accounting. The development, interpretation, and use of relevant cost behaviour, control, and creditability concepts for management planning, controlling, and decision making are emphasized. Topics include an introduction to contract costing, Marginal and Absorption Costing (Contribution concept), Break Even Analysis (C-V-P analysis), Budgeting and Budgetary Control, and variance analysis.

ADAC 414 Taxation  
**Prerequisite: ADAC 311 Intermediate Accounting**
The course aims to equip students with the ability to understand and appreciate the tax system in Ghana. It is assumed to be a first course in taxation for the student and should be thought in a practical manner. It seeks to present the subject-matter of Taxation as a major fiscal tool for socio-economic management at the macro, corporate and individual financial management levels in the Ghanaian context. The conflicting social, economic and political interests that impact tax policies are also examined. Topics to be covered include Introduction to taxation; Indirect Taxes and Income Tax; Double Taxation; Capital Gains Tax; Introduction to Income Tax Returns, Income Tax Administration, Individual Income Taxation, Capital Allowances, Corporate Taxation, Capital Gains Tax, Gift Tax, Double Taxation and, Taxation of Partnerships and Partners.

ADMIN 421 Long Essay  
**Prerequisite: ADAC 311 Intermediate Accounting**
The long essay at the undergraduate level is designed to help students appreciate the concept of research. Indeed students undertake research of their own under the guidance of a supervisor. The aim of the course is to help the students learn to organize their ideas and thoughts coherently and logically. As a first step in long essay writing, students write a proposal and build up on it to embrace broader issues such as literature review, methodology, including data collection and analysis. Students are expected to collect their data during their industrial attachment and draw conclusion from the analyzed data. The final research paper is then prepared in accordance with the University’s regulation.

ADMN 422 Strategic Management  
**Prerequisite: ADAC 311 Intermediate Accounting**
This course is an integrated one with focus on the whole area of strategy and management. The emphasis is on management of the entire business rather than any particular functional area (Accounting, Marketing, Production, Finance etc.). The course, strategic management is very important in helping to develop the ability to examine and audit the business environment and to formulate appropriate corporate strategies in respond to the turbulent business environment to ensure survival, expansion and growth for the ultimate goal of competitive advantage. The major topic areas include; environmental audit, strategic choices of competitive strategies of diversification, portfolio...
strategies etc., strategic planning and formulation, implementation, control and the process of managing strategic change

**ADAC 421 Public Sector Accounting**  
3 Credits  
The course is designed to introduce students to accounting for the public sector, highlighting on budgeting and accounting systems in the public sector. It also introduces students to financial administration procedures and practices in both the central and local governments with emphasis on District Assemblies in Ghana.

**ADBF 312 Law of Banking**  
3 Credits  
The course deals with those principles of law most relevant to everyday banking practice such as: bank-customer relationship, including the handling of negotiable instruments, some basic principles of mercantile law, and types of securities taken by banks. Topics include bank and agency, partnership customer, company customer, insolvent customer, corporate securities and guarantees.

**ADBF 311 Business Finance**  
3 Credits  
This course focuses on the value of money concepts, investment valuation and decision making under conditions of certainty and uncertainty. It is designed to develop students' skills in the identification of viable projects through different methods of valuation and analysis. The various ways by which a firm can raise capital from the financial market is also covered.

**ADBF 312 Micro Finance**  
3 Credits  
This course will deal with an analysis of credit schemes for micro entrepreneurs, their effectiveness and impact, strategic and operational planning. The course reviews the content of training package for beneficiaries and monitoring procedures, loan recovery and empowerment, and sustainability of project. Planning institutional resources and capacity will be considered.

**ADBF 321 Investment Fundamentals**  
3 Credits  
The course is about investment in marketable securities. Accordingly, the course focuses on the investment environment and process. The investment environment encompasses the kinds of marketable securities that exist particularly in Ghana and where and how they are bought and sold. The investment process on the other hand is concerned with how an investor should proceed in making decisions about what marketable securities to invest in, how extensive the investments should be, and when the investments should be made in order to maximize the return, given the associated risk. Specific topics treated include organization and functioning of security markets, sources of security information and measurement of indicator series. Valuation principles and practices including analysis of financial statements are covered. Analysis of bonds and stocks using fundamental and technical approaches are covered. Portfolio theory is also studied.

**ADBF 322 Practice of Banking**  
3 Credits  
This course is an in-depth study of the relationship between banker and customer, banking operation, the implication arising from different types of accounts and events affecting their banking operations. The course also includes securities for advance as encountered by banker/lenders in common situations. Topics include banker and customer relationship, determination of the banker/customer relationship, banking transactions, types of account holders and securities acceptable to bankers.
ADBF 323 Financial Management 3 Credits
This course enables students to know exactly the role of the financial manager in any organization. It equips students with the basic tools used by the financial manager for detecting and eliminating potential corporate problems and help students appreciate the importance of working capital management. In this course, students will be introduced to how the financial manager makes investment decisions under certainty and uncertainty. The various ways by which firms may raise funds from the financial market are analyzed.

ADBF 322 International Trade Finance 3 Credits
An overview of International business and the various instruments used to finance international trade through the banking system. The topics covered include international trade, role of the banks in international trade, international trade finance and other services provided by banks.

ADBF 412 Banking Operations and Ethics 3 Credits
This course introduces students to the operations of the banking system and the installation of professional ethics in banking practice. Topics included are origin of banks, structure of the banking system, banks and customer relationship, types of accounts and banking services. Focus is also on the principles of leading, securities for advances, and ethics in banking.

ADBF 413 Investment and Portfolio Management 3 Credits
This course introduces students on how to invest in personal or institutional portfolios. Investment methods and investment markets will be considered. Basic investment theory with emphasis given to the analysis of securities, portfolio management, and the operation of securities market will be dealt with in this course.

The course also looks at investment prospects in real estates. Classification of real estates, estate evaluation, and investment in them is the focus of the course. Other topics include methods of financing real estate’s investments, forecasting changes in real estate values, analysis of returns on real estate investment.

ADBF 414 Financial Markets 3 Credits
The course aims to provide students with a basic understanding of financial markets and institutions. The course covers financial intermediation and innovations, key regulatory trends in both the Ghanaian financial market and international financial markets. Activities and characteristics of depository and non-depository institutions are covered.

ADBF 415 Lending (Commercial Banking) 3 Credits
The course aims at exposing the student to the use of the principles of finance in banking. These principles would have been covered in Business Finance I & II. The theory is introduced with respect to bank asset and liability and liquidity management. Topics include the importance of banks in the Ghanaian economy; bank operations and risks; deposit creation; asset liability and liquidity management; interest rates and bank management; credit risk management, types of bank loans; bank costs; bank regulation and capital; innovation and technology in banking; bank valuation and performance and bank strategic planning.

ADBF 416 E-Banking 3 credits
The course introduces students to concepts, innovations and implementations of contemporary technologies which make banks survive in the 21st century. These include education on
electronic and internet banking systems, operations of electronic fund transfers, electronic finance and banking across borders. It deals largely with the increasing attention to dynamic forms of international financial integrations and globalizations.

**ADBF 411 Public Finance**  
This course is an introduction to the economic analysis of public sector. The reasons for Government intervention in the economy are analysed. Governments intervene in the economy to ensure efficiency and equity in the distribution of incomes using welfare economics. Governments taxing and spending activities are considered. Analysis of public expenditure (public goods and externality) are covered as well as revenue (taxation), using concepts and tools in microeconomics and welfare economics. After completing the course, students will understand the basis of government economic policies, the rationale behind common public programs, the considerations for designing taxation policies, and potential problems in the public decision-making process.

**ADBF 421 International Finance and Banking**  
This course is a natural and logical extension of the principles of the foundation course in Corporate Finance or Financial Management. It builds on and extends the framework and basic principles provided by domestic corporate finance to account for those dimensions that are unique to decisions in a competitively dynamic global context. Coverage will extend to the use of financial analysis and reasoning in solving international financial problems and decision-making. The traditional areas of Working Capital Management, Capital Budgeting, Cost of Capital, and Financial Structures will be covered from the perspective of a multinational or trans-national enterprise. The additional areas will include multiple currencies with frequent exchange rate changes, varying rate of inflation and interest, different tax regimes, multiple money markets, exchange controls, segmented capital markets, political risks, and international banking developments.

**ADBF 422 Risk Management**  
This course is an introductory study into the field of Risk Management. Material covered includes insurance categories of liability, property, unemployment, fire, automobile, health and life. Primary emphasis will be on business applications, but some consideration will be given to personal risk. Government regulation of the industry and contractual classes are examined as well.

**ADBF 423 Monetary Theory**  
This course deals with the importance of money in finance and economics; hence, it deals with the roles of money and the effects of monetary developments on businesses and the economy as a whole. Students should have a good grasp of undergraduate macroeconomics and finance as well as a good quantitative hold.

**ADBF 424: Treasury Management**  
It has to do with effective management of cash to minimize fraud and avoid delays with the ultimate goal of maximizing the company’s liquidity and mitigating the firm’s, financial and operational risk. It includes an organization’s collections, disbursements, concentration, investment and funding activities.

**ADHR 311 Human Behaviour in Organizations**  
The most important aspect of organizations is the people: the men and women who make up management as well as the work force. The aim of this course is to provide a systematic understanding of organizational life as created by the human beings in the firm. Students will
be encouraged to understand issues such as group dynamics, individual differences, values and perceptions, organizational politics as well as interpersonal interactions.

**ADHR 312  Labour Law**  
3 Credits  
This course is focused on the examination of the labour laws in Ghana – past, present and future considerations. It presents students with a critical understanding of the labour laws and how organizations can ensure that they stay within the law.

**ADHR 313  Industrial Relations**  
3 Credits  
The purpose of this course is to provide a general introduction to the very important and complex subject of the management of employee relations. It focuses on the maintenance of industrial peace, which has to do with the avoidance of industrial strife, development and growth of industrial democracy, negotiation with unions, redressing employee’s grievances, assuring labour law compliance, interpretation of labour agreements and laws as well as the promotion of trade unionism and the settlement of industrial disputes. Participants will therefore be equipped with the knowledge and practice of the systems theory of industrial relations, which sees the subject as a system of regulations and rules.

**ADHR 314  International Human Resource Management**  
3 Credits  
Interactions between countries are growing exponentially in the globalized business environment today. Even if a company is not going global, it may be either buying or selling to foreign firms or subsidiaries of foreign firms. The international and multicultural work environments of today provide new challenges to business managers. As business executives, your success will be influenced by your multicultural sensitivity, and your ability to understand both the challenges and the opportunities that these environments provide. The goal of this course is to expose students to a way of thinking that increases their ability to understand the influences of culture on organizational practices. Areas to be covered include the following: Globalization of business and HR, Factors affecting global HR management, Staffing global assignments and International compensation.

**ADHR 315  Conflict Management and Resolution**  
3 Credits  
The scope for this course significantly looks at how conflict are managed and resolved within an Industrial environment. It will explore the concept and meaning of organizational conflict which is vital for conflict discovery and exposure. The course will cover key approaches in conflict management. This will include Avoidance, Settlement by outside party, Settlement by the parties, Power, Consents and Settlement by force. It will pay attention to grievance procedure which is a significant means of discoveries and resolving employee complaints and dissatisfactions. Other key topics will include theories of conflict, types of conflict, stages of conflict and conflict resolution strategies. Alternative methods’ of dealing with industrial conflict is also covered.

**ADHR 316  Leadership**  
3 Credits  
This course offers students a comprehensive, relevant perspective on leadership and management. While the course provides grounding in important concepts, it also stresses application to professional settings. Students analyze concepts such as leading as an interactive process (involving the leader, the “followers”, and the situation), managing with innovation and creativity, escaping from embedded practices, and embracing new managerial principles. This course provides students with contemporary empirical study of leadership and
management as well as commentary, case histories, and multimedia presentations. Topics to be treated include: principles of effective leadership, organizational structure and communication, managing change, negotiation and conflict management, decision-making principles, diversity management, and communication processes.

ADHR 317 Supervision 3 Credits
This course includes an introduction to concepts, processes, and styles of supervision and offers students the opportunity to gain experience in providing supervision to other counsellors in training. The course also provides students with the knowledge and skills necessary to engage in consultation, negotiation/mediation, and systems level intervention in mental health and education setting. Building effective management and supervisory skills that can help staff and organization succeed even in challenging economic times. Topics include effective management skills such as performance management, motivation, team development, interpersonal and communication skills and time management skills.

ADHR 321 Labour Economics 3 Credits
Labour economics seeks to understand the functioning of the market and dynamics for labour. Labour markets function through the interaction of workers and employers. Labour economics looks at the suppliers of labour services (workers), the demanders of labour services (employers), and attempts to understand the resulting pattern of wages, employment, and income. It also focus on wage differentials, human capital, discrimination, and the labour union.

ADHR 323 Human Resource Development and Training 3 Credits
Human resource development and training is concerned with the provision of learning, development and training opportunities in order to improve individual, team and organizational performance. It is also essentially a business-led approach to developing people within a strategic framework. This course will equip students with the knowledge and practices of training and development within the organization as a means of boosting up performance for the purpose of achieving organizational goals. Students will look at areas like training needs assessment, performance appraisals, planning and designing training programmes, measurement of training effectiveness and the evaluation of training programmes.

ADHR 324 Compensation Management 3 Credits
This course deals with the study including job analysis, job descriptions, job specifications, job evaluation and their corresponding wage scales, fringe benefits as well as the management of wage and salary problems. Incentives, intrinsic and extrinsic motivational factors are discussed as components of compensation systems. Compensation management considers employee retention, growth and compensation plan that meet corporate objectives. Again, benefits administration is discussed as an important duty of the human resource function which ensures that employees are covered with medical, disability, retirement and other benefits for the purpose of attracting and retaining a high level performance workforce. Emphasis is placed on designing a benefit system that is reasonable to build, implement, monitor while keeping within budgetary constraints.

ADHR 325 Human Resource Information Systems 3 Credits
Human Resource Information Systems (HRIS) course shape an intersection in between human resource management (HRM) and information technology. It merges HRM as a discipline and
in particular, it’s basic HR activities and processes with the information technology field. Areas covered in this course includes the following introductory topics Payroll, Work Time, Benefits Administration, HR management, Information system, Recruiting, Training/Learning Management System (LMS)

**ADHR 326 Employee Health & Occupational Safety**  
3 Credits  
Protecting the Health and Safety (H&S) of employee is now a key concern of management. Organizations now desire to be more cost effective and to prove value in occupational health and safety. This course will therefore consider the key thematic areas that will help our organization meet its legal and social responsibilities to ensure a healthy and safe place of work.  
Topics include concept and meaning of occupational accidents and diseases, purpose and importance of health and occupational safety, Factors affecting occupational accidents, strategies to control accidents, factors affecting occupational diseases, safety policies and legal consideration for health and safety in Ghana

**ADHR 411 Performance Management**  
3 Credits  
Performance management processes have become prominent in recent years as means of providing a more integrated and continuous approach to the management of performance. It is based on the principle of management by agreement or contract rather than management by command. It also emphasizes development and the initiation of self-managed learning plans as well as the integration of individual and corporate objectives. Participants having gone through this course will see the need for performance improvement through the usage of a strategic and integrated approach. Areas to be considered are, among other: the bases for performance management, principles of performance management, its ethical considerations and the process of performance management.

**ADHR 412 Human Resource Planning**  
3 Credits  
People represent the most important and most flexible resources available to the senior management and the organizations in general. Deploying people with the right skills, in the right numbers, and in the right place is fundamental to success. The purpose of this course is to enable participant establish the practice of human resource planning into their prospective organization’s system as a systematic approach to the acquisition, use and deployment of people in the organization. Students will examine, amongst others, the relationship between organizational strategies and human resource planning, rationale and aims of human resource planning, demand and supply forecasting, succession planning and labour turnover implications.

**ADHR 413 Organizational Psychology**  
3 Credits  
This course looks at how psychological theories and principles can be applied to the workplace or organization. The course looks at how psychology can be a useful tool in such areas of work and organization like, personnel psychology, personnel appraisal, organizational behaviour, and how other psychological issues can sometimes influence behaviour at work.  
This course is aimed at helping students to understand the psychology of the workplace. What role do organizations play in bringing out the best in their employees and how does leadership commitment, etc contribute to overall optimal work output.
ADHR 414  Strategic Human Resource Management  3 Credits  
This subject has to do with the integrated approach to the development of human resource strategies that will enable the organization to achieve its goals. It is linked to the concept of strategy which is ‘The direction and scope of an organization over the longer term, which ideally matches its resources to its changing environment, and in particular, to its markets, customers and clients to meet stakeholder expectations’. Topics to be treated include: concepts of strategic human resource management, resource based strategic human resource management, formulating human resource strategies, strategic human resource management models and the implementation of human resource strategies.

ADHR 415  Organizational Development  3 Credits  
Change is inevitable and has become a way of life for many organizations. Pressure from increasing competition, technological advancement, globalization and other forces has created an environment that is capable of identifying trends and issues and responding to them. The objective of this course is to introduce the concept of change as a basis for analyzing organization effectiveness. There are two components: organization development theories and organization development process. Among the areas covered in the former are: change process theory and implementation theory. The areas to be treated in the later, on the other hand, include, contract establishments, information collection, diagnosis, and intervention strategies.

ADHR 421  Change Management  3 Credits  
Change is inevitable and has become a way of life for many organizations. Pressure from increasing competition, technological advancement, globalization and other forces has created an environment that is capable of identifying trends and issues and responding to them. The objective of this course is to introduce the concept of change as a basis for analyzing organization effectiveness and how change could be handled in a way that will be most acceptable and less problematic. Areas to be looked at include: the change process, strategic and operational change, resistance to change and how to overcome it, as well as some models for change management.

ADHR 422  Mentoring and Coaching  3 Credits  
This Coaching & Mentoring training course focuses on the methods by which managers develop the performance of individuals in their team. It looks at two main types of coaching, providing opportunities for managers to apply these skills.

At the end of this coaching and mentoring course students will learn about: coaching to improve individual performance, the relationship between coaching and other performance management techniques, the key coaching styles (input and output), the coaching process and skills, the role of the mentor and mentoring programmes.

ADHR 423  Pensions & Social Insurance Schemes  3 Credits  
This course aims at making the participant aware of the need for an effective social security system and provides the background to pension schemes. It is aimed at enabling the participant to distinguish between social insurance and private individual insurances. It outlines the key issues involved in the organization of social security schemes and discusses the characteristic features of employee benefit schemes.
ADMK 311  Sales Management  3 Credits
Personal selling, as a marketing sub-function, is embedded in the promotional component of the marketing mix. It is a revenue-generating function, which is performed by a team of sales personnel usually referred to as the "sales force". Owing to the unique features of the personal selling job (e.g. little or no direct supervision), it is considered necessary to equip potential sales force with distinct management skills, in order to ensure efficiency and effectiveness. Skills include motivation, compensation, forecasting and budgeting. It includes approaches to sale, the steps involved in the selling process, territory development, sales planning, forecasting and budgeting.

ADMK 312  Services Marketing  3 Credits
This course focuses on the increasing role of the service sector in today’s globalised world. It has taken a giant leap in its contribution in the Gross Domestic Products of many countries. Services marketing has therefore become specialized and complex; as customers are increasingly becoming more sophisticated. The course is intended to equip students with the knowledge, understanding and the requisite skills to deliver reliable and convenient service. This course exposes students to current issues in services marketing management like nature of services, understanding customer behaviour in services marketing; customer decision making model; understanding customers services expectation, Planning and creating services, distribution in a services context ;dysfunctional customer behaviour, the service environment; services human resources; implementing profitable service strategies; managing relationships and building strategy.

ADMK 313  Advertising  3 Credits
The advertising programme is specifically about the creative side of advertising. The course produces Advertising Creatives, for example Art Directors and Copywriters, who will work in the creative departments of advertising agencies. Courses in the Department of Design are rooted in Creative Thinking (innovative ideas generation and making). The student will be exposed to the best contemporary work. Topics will include develop skills in computing, drawing, contextual studies, professional practice, typography, art direction and copywriting. Verbal presentation is also a big part of the course.

ADMK 314  E-Marketing  3 Credits
This course deals with the understanding of the basic application technology that is used to conduct business in the new market space of electronic commerce. It includes the study of electronic channels, well-designed web site and their impact on small and large business entities. Emphasis will be placed on analyzing information and applying graphic design techniques to develop effective Web pages for on-line business. Topics include e-commerce, navigation, security issues, networks, business models, and an overview of Web design and distribution.

ADMK 321  Retailing  3 Credits
This course is structured to teach those business activities involved with the sale of goods and services directly to final consumers. The objective of the course is to expose students to the crucial role played by retailing in any marketing process as part of the distribution function. The student also acquires knowledge of the major types of retailers, managing the retail function, service retailing, internationalization of retailing and the future of retailing.
ADMK 322  Consumer Behaviour  3 Credits
This course is structured to equip the student with the tools required to research into and appreciate the role of human senses in perception, beliefs, attitudes and group effect on the behaviour of consumers, particularly, "ultimate consumers". At the end of the course, the student should be able to understand the structure, buying processes and those actions expressed by consumers in their effort to satisfy their needs by searching for, purchasing, using and disposing of products and services, including their pre- and post-purchase evaluations. This course also stresses the importance of viewing consumer behaviour as a factor of the changing business environment and the consumer being a problem solver in a complex situation today. Such information is vital for the marketer/producer as well as the policy maker. The programme will include theory, and contemporary consumer behavioural issues.

ADMK 323 Customer Care Management  3 Credits
With increasing affluence in the world, customers’ taste and preferences are changing over the kinds of services they want to enjoy or patronize. As a result, customers are rather becoming more sophisticated and selective. Competition, coupled with high standard of service or product satisfaction levels set by customers, it is the business organization that strives to identify, understand and deliver to meet the highest levels of satisfaction that will win the competition. The course therefore is to expose students to the skills of customer care, using that as a basis for developing strategies to achieve organizational objectives. Topics include, what is customer-care, understanding customers, measuring customer service levels, tracking customer feedback, dealing with customer complaints, customer service loyalty schemes and using customer care to increased sales.

ADMK 324 Supply Chain Management  3 Credits
This course deals with the management of material resources of an organization. It involves the planning and management of an organization’s material inputs. The study covers areas like: vendor identification, vendor analysis, vendor development, out sourcing of resources, problems and solution of logistics, inventory management and control, transportation models, just in time concepts, and quality concerns of material sources.

ADMK 411  Marketing Research  3 Credits
This course focuses on equipping students with modern skills of marketing problem solving, the emerging challenges of today’s global competitive marketplace. This course examines the micro and macro environmental factors impact on the controllable marketing variables. The course portrays a balance of quantitative and qualitative approaches to conducting research. It emphasize the translation of marketing management problems into research questions, developing a research design to address these questions by making available various options for sampling, gathering data and analyzing research results accompanied by relevant recommendations to management. The course covers the depth and breath of the topics relating to definition of marketing problem, the systematic collection of business and marketing-related data, analysis of data, presenting research findings in both oral and written formats to decision makers.

ADMK 412  Integrated Marketing Communication  3 Credits
This course is designed to provide students with knowledge and understanding of the concept of integrated marketing communications and how it can be made to work effectively within an organization. It provides the student with skills to co-ordinate all the communication activities of an organization to deliver a cohesive, consistent, and effective message to its target
The course also focuses progressively on the managerial aspects of analysis, planning, implementation and control of the IMC programme, with particular reference to the elements of the promotional mix. The main objective of the course is to provide, at the undergraduate level, the requisite skills that will enable students to apply the concepts of integrated marketing communications within different organizational set-ups.

ADMK 413  **Strategic Marketing**  3 Credits
This course seeks to equip marketing students with enabling skills to develop competitive marketing strategies as an integral part of a total corporate strategy as well as develop strategies for selected situations. The course strengthens students’ understanding of strategic marketing management and its connection to corporate strategy. This course locates marketing planning, implementation and control within a strategic context. It demonstrates how the available range of analytical models and techniques might be applied to marketing planning, implantation and control.

Further, the course provides skills for the development of appropriate organizational structures for effective implementation of strategies. In this regard, the course dwells on the five strategic pillars of where are we now? Where do we want to be? How might we get there? Which way is the best? And how can we ensure arrival? This questions lead to the examination topical of issues like Marketing auditing, Missions and Objectives, Formulation of strategy, Strategic choices, Evaluation, Strategic Implementation and Control.

ADMK 414  **Business Development Management**  3 Credits
This course focuses on the essential skills business people need to develop and implement new business ideas and evaluate and realize the full potential of existing businesses, using such tools assessing marketing opportunities and target markets, intelligence gathering on customers and competitors, generating leads for possible sales, follow-up sale activities, formal proposal writing and business model design. The course is broken down into two parts. Part A deals with the development of new businesses and Part B deals with business development for en existing business.

ADMK 415  **Public Relations**  3 Credits
Public Relation is the discipline that manages reputation. It involves maintaining goodwill and understanding between an organization and its stakeholders, based on effective two-way communication. Practitioners need skills in internal and external communication. The course will primarily concentrate on these following areas. Principles of public relations, positioning the discipline firmly within the ambit of applied communication and management science. The development of public relations programmes based on communication strategies, message construction and measurement of effectiveness, the acquisition of a range of professional skills for presentation and relationship building, research for effective decision-making will be taught. Based on critical engagement with alternative methodologies, writing skills for PR including the ability to communicate effectively in a number of tones, registers and styles of language, campaign planning, the PR practice will allow students to develop their own campaigns and reflect upon it critically from theoretical and practical standpoints.
ADMK 416  Health Services Marketing  
We live in a post-industrial era, where manufacturing had declined and provision of services has become a dominant feature of our society. This course in health services management is intended to focus students’ attention on the essential features of the operational management of a specific service, the health facility, hospitals, clinic and nursing homes. It is a specialist aspect of services marketing with emphasis on nature of health service operations, facilities layout, job design, queuing, management information services and quality control.

ADMK 421  International Marketing  
The course is designed to introduce students to the theory, nature and practice of international and export marketing. It builds on the student's previous marketing knowledge (Elements of Marketing) and applies this within the framework of competitive and changing world marketing imperatives. The course addresses issues like the nature of international business compared to domestic marketing; factors that impact the decision to internationalize; evaluation and selection of foreign markets; the various modes of foreign market entry; adaptation of marketing programmes to specific market conditions; and organization of international activities.

ADMK 423  Brand Management  
In the competitive global world with similar and competing goods flooding the market, branding is one of the effective marketing tools that offers a business a competitive edge over others. Branding differentiates and makes a company’s product unique. Successful corporate branding translates into among others customer loyalty and increased revenue. The aim of this course is to expose students to theories and concepts of branding with a view to enable them develop and apply strategic actions to leverage a company’s advantage. Topics include developing brands, creating brand identity and available tools for communicating brands and brand portfolios.
### 6.2 BSc (Hons.) Degree in Computer Science & Information Systems (CSIS)

#### FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>ADMN111 Communication Skills</td>
<td>ENGL121 English Language</td>
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<td>FREN111 French I</td>
<td>FREN121 French II</td>
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</tr>
<tr>
<td>PYSC111 Introduction to Psychology</td>
<td>ECON121 Introduction to Economics</td>
<td>3</td>
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<td><strong>OR</strong></td>
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<tr>
<td>SOCI111 Introduction to Sociology</td>
<td>MATH121 Discrete &amp; Continuous Mathematics</td>
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<tr>
<td>MATH111 Pure Mathematics</td>
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<tr>
<td>CSIS111 Intro. to Computer Program Design</td>
<td>CSIS121 Programming with C++ (Console)</td>
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<td>CSIS112 Computer Science Foundation I</td>
<td>CSIS122 Computer Science Foundation II</td>
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<tr>
<td>ADMN 112 Intro. To Critical Thinking &amp; Logic</td>
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#### SECOND YEAR

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<tr>
<td>ADMG 211 Fundamentals of Management</td>
<td>MATH221 Probability &amp; Statistics</td>
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<tr>
<td>ADAC211 Principles of Accounting</td>
<td>CSIS221 Computer Organization &amp; Architecture</td>
<td>3</td>
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<tr>
<td>MATH211 Numerical Methods</td>
<td>CSIS222 Application Systems</td>
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<td>CSIS 211 Basic Electronics</td>
<td>Programming</td>
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<td>CSIS 212 Object Oriented Programming with JAVA</td>
<td>CSIS223 Digital Logic &amp; Design</td>
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<td>CSIS213 Data Structures and Algorithm</td>
<td>CSIS224 Information Systems</td>
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<td>CSIS225 Database Concepts &amp; Technologies</td>
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#### THIRD YEAR

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<td>CSIS312 Computer Ethics</td>
<td>CSIS322 Compiler Design</td>
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<td>CSIS313 Web Application Programming</td>
<td>CSIS323 Operating Systems</td>
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<td>CSIS314 Data Communication &amp; Computer Networks</td>
<td>CSIS324 Software Engineering</td>
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<td>CSIS325 Research Methods</td>
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**TOTAL 18**
### Fourth Year

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<td>CSIS421 Human Computer Interaction</td>
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<td>CSIS 411 Information Systems Security</td>
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<td>CSIS422 Artificial Intelligence</td>
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<td>CSIS 412 Distributed Systems</td>
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<td>CSISxxx Elective 2</td>
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<td>CSIS xxx Elective 1</td>
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<td>CSISxxx Elective 3</td>
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<td>CSIS492 Senior Project II</td>
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<td><strong>Electives (Please Select Two from the list)</strong></td>
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<tr>
<td>CSSIS 413 Computer Simulation</td>
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<td>CSSIS 423 Advanced Network &amp; Systems Administration</td>
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<tr>
<td>CSSIS 414 Advanced Data Structures and Algorithms</td>
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<td>CSSIS 424 Advanced Computer Architecture</td>
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<td>CSSIS 415 Advanced Data Comm. &amp; Comp. Networks</td>
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<td>CSSIS 425 Advanced Database Concept &amp; Technologies</td>
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<tr>
<td>CSSIS 416 Cloud Computing &amp; Emerging Technologies</td>
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<td>CSSIS 426 Advanced Systems Analysis &amp; design</td>
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<tr>
<td>CSSIS 417 Mobile Technologies and Services</td>
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<td>CSIS 427 MIS Project</td>
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<td><strong>TOTAL</strong></td>
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*The course is offered during the summer/Long vacation*

### SHORT COURSE DESCRIPTION

**MATH111 Pure Mathematics**  
3 Credits  
The course concentrates on mathematical topics and concepts that would prepare students for the tedious and more difficult computer science mathematics. Topics covered include; Indices, Surds, Logarithms, and Quadratic Functions. Also, students are introduced to Probability, Statistics, Correlation and Regression, Differentiation, and Integration.

**CSIS111 Intro to Computer Program Design**  
3 Credits
This course assumes no programming language experience. It provides the beginning programmer with a guide to developing structured program logic. Topics covered include: an overview of computers and logic, computer program structure, modules, hierarchy charts, making decisions, looping, control breaks, arrays, files, object-oriented programming and system modeling with UML.

**CSIS112 Computer Science Foundation I**  
3 Credits  
This course provides a basic introduction to computer systems and computing. Students are taken through the hardware and software components of a computer system and are introduced to the fundamentals of computer network system. Students will also be introduced to basic computing using standard application packages namely word processing, spreadsheets, presentation, and database packages. Further students are introduced to website development using HTML.

**ENGL111 English Language**  
3 Credits  
The course is designed to enable students to develop the English Language skills needed to begin College course. The course thus aid students to develop productive skills of reading and writing. Essay writing, comprehension, understanding of grammatical rules, and documentation style.

**ECON121 Introduction to Economics**  
3 Credits  
An analysis of national income and expenditure. Theories of unemployment, inflation and growth are examined as well as international trade and the balance of payments. Other topics that will be covered are national problems such as supply and demand, growth, output, productivity, employment, interest rates, fiscal and monetary policies, etc.

**MATH121 Discrete & Continuous Mathematics**  
3 Credits  
This course introduces students to concepts in Discrete Mathematics and stresses on mathematical reasoning essential to solving Computer Science analysis problems. To achieve this, five important themes are interwoven in this course: mathematical reasoning, combinatorial analysis, discrete structures, algorithmic thinking, applications and modeling. Topics covered include Set Theory, Relations and Functions, Prepositional and first order predicate logic, Mathematical Reasoning, Number systems and arithmetic (complement
number system), and Counting Techniques. Further topics includes, Graphs, Trees, and Boolean Algebra.

**CSIS121 Programming with C++ (Console)**  
4 Credits
The course covers language syntax, expression and functions with parameters, conditions, loops, arrays and pointers. Object oriented programming concepts: inheritance, polymorphism, operator overloading and encapsulation. Other Object oriented features like Abstract Classes, Virtual Functions, Friend Functions, Templates, Memory management, File handling, Error and Exception Handling are taught using C++ for all programming assignment.
*Prerequisite: CSIS121*

**CSIS122 Computer Science Foundation II**  
3 Credits
This course provides a good appreciation of the fundamentals of computer architectures and their operation. It covers the following topics: number systems; basic computer components; the fetch-decode-execute cycle; branch instructions and flow control, addressing modes, stacks and subroutines, input output, interrupts, and exceptions. The course further overviews data structures.
*Prerequisite: CSIS101*

**ADMG211 Fundamentals of Management**  
3 Credits
This course presents the basis of theory and science of Management. Management is an art which is best executed by the application of scientific fundamentals. The functions of management will be introduced: planning, organizing, controlling, leading. This will provide a conceptual framework for students to understand the practice of management as well as the challenges and issues confronting Ghanaian management with the global context.

**ADAC211 Principles of Accounting**  
3 Credits
This is an introductory course intended to familiarize the students with principles and methods of accounting primarily concerned with financial data gathering and presentation in the form of general-purpose external financial statements. Specific areas include nature and purpose of accounting, fundamentals of accounting, trial balance; adjustments; bank reconciliation and the preparation of simple financial statements (Profit & loss, Balance sheet, Cash flow, Cash Budgets).
MATH211 Numerical Methods 3 Credits
The course identifies and discuss numerical solutions of Algebraic and transcendental equations, convergence of iteration schemes, Absolute and Relative errors; finite differences and applications; interpolation, inverse interpolation; Numerical methods of solving Linear equations; Numerical differentiation and Integration; Numerical methods of solving ordinary differential equations.

CSIS211 Basic Electronics 3 Credits
This course will introduce students to the concepts of voltage, current and charge, basic circuit theory and linear circuit elements, the concepts of impedance, and phasor representation, applications of electric and magnetic and magnetic materials, electromagnetic waves. Basic calculation methods and simple design examples are taught.

CSIS212 Object Oriented Programming with JAVA 3 Credits
The aim of this course is to use JAVA to emphasize Object-Oriented Programming concepts. Topics covered include; JAVA syntax, loops, decision, arrays, strings, objects and classes, strings, inheritance and polymorphism, abstract classes and interfaces, applets/swing, GUI programming, exception-handling and IO.

Prerequisite: CSIS122

CSIS213 Data Structures and Algorithm 3 Credits
The course examines program specifications, design, coding, correctness, and style with additional coverage of pointers and arrays, and an in-depth study of recursion and the design and analysis of algorithms using appropriate data structures. Topics include: files, lists, stacks, queues, trees, graphs, and graph.

Prerequisite: CSIS122

MATH221 Probability & Statistics 3 Credits
The course introduces the concepts of probability and the use of basic statistical techniques, with reference to their application to Computer Science. Topics covered are: Probability Distributions, Mean and Variance, Statistical Estimation and Hypothesis Testing, Regression, Bayesian Statistics.

CSIS215 Computer Organization & Architecture 3 Credits
This course gives the student an overview of instruction formats and addressing methods, data types and instruction, Assembly language programming, definition and use of macros, program segmentation and linkage, assemblers and microprocessors, interrupt structures and handling. Also, Micro-programming level issues, interconnection structures and general structure of buses and processors are covered.

Prerequisite: CSIS227

CSIS222 Application Systems Programming 3 Credits
This course is designed to introduce students to Visual and Object-Oriented Programming Concepts, Inheritance, Polymorphism and Encapsulation. Students are taught how to write stand-alone windows applications with Dialogue boxes. Option buttons, check boxes, menus, windows style, help Facilities and installation programs writing ActiveX controls and windows DLLs and using windows API are covered.

Prerequisite: CSIS224

CSIS223 Digital Logic & Design 3 Credits
This course is designed to introduce students to the theory and practice of digital logic. Topics covered in the course include: Binary Logic, Boolean algebra, Boolean Functions, other logic operators, Simplification of Boolean functions, arithmetic logic, combinatorial logic implementation techniques; sequential logic and asynchronous sequential logic.

Prerequisite: CSIS210

CSIS224 Information Systems 3 Credits
This course provides an in-depth understanding of the concepts, principles and practice of information systems. It covers topics relating to: information system as strategic resources; trends towards information system integration in user-organizations; how the building blocks and design forces combine to form a viable user-oriented information system; and applying the strategic planning process and systems development methodology to the analysis, design, and implementation of systems that meet the requirement and goals of the user-organization. The course also provides a thorough understanding of a number of issues relating to various types of information systems including: MIS, EIS, DSS, and Expert Systems.
CSIS225 Database Concepts and Technologies  
3 Credits
This course aims to introduce students to the theory and design of database systems, entity-relationship, relational, network, and hierarchical database models. Relational algebra and calculus, normalization, query languages/optimization, physical data organization, concurrency, security, recovery, and integrity. A relational database project is required.

CSIS311 Computer Engineering  
3 Credits
This course covers the organization and control of high performance processing systems with an emphasis on parallel systems. Course content: Bit-parallel memory and arithmetic, I/O processors, interleaved memory, cache memory, instruction look-ahead, multiple functional units, instruction pipelines, pipeline functional units, processor arrays, multiprogramming, timesharing, multiprocessing, data-flow, Flynn’s taxonomy, Amdahl’s law, interconnection systems - mesh, shuffle-exchange, hypercube, butterfly, shared memory arrays, distributed memory arrays, tightly and loosely coupled multiprocessors, data-parallel programming, scheduling parallel tasks, loop scheduling.

CSIS312 Computer Ethics  
3 Credits
The course aims at providing students with a firm understanding of the nature and range of ethical problems arising from the use of ICT within the business and non-business environment. Legal and professional issues of computing are also covered since information and communication technology is an area of work which employs and affects a large number of people in the society. The course thus equips students with the tools to build information systems to the highest ethical and professional standards. Topics covered include piracy, hacking, viruses, responsibility and liability for the use of software, cyberporn, computerized invasion of privacy, computers in the workplace, and the use of artificial intelligence and expert systems.

CSIS313 Web Application Programming  
3 Credits
This course introduce and discussed Web-Based concepts and Developments which include - Foundation of web-based programming, Foundation in web-based technologies, Web Page Creation (layout, navigation), Web-based Architectures - Client/Server, Distributed, Web servers and web hosting - IIS, Apache, Domain name registration, Static and Dynamic web content and creation - HTL, DHTML, XL, Server side and Client side Scripting , Trading and
security on the web - e-commerce, e-business, encryption, signatures, Scripting languages - Open source (PERL, PHP, PYTHON, JSP, Servlets) and Microsoft based languages (ASP, ASP.NET).

**CSIS314 Data Communication & Computer Networks** 3 Credits
This course aims at introducing students to the fundamental concepts of Data Communications. Topics include: Communication model, telephone communication, data communication hardware, data transmission, point-to-point communication, broadcast communication, multimedia communication and OSI reference model with emphasizes on the data link layer.

**CSIS315 Systems Analysis & Design** 3 Credits
This course introduces students to the concepts, principle and practice of systems analysis and designed. A number of systems analysis methodologies are covered with emphasis of structured systems analysis and design methodologies (SSADMs). The course covers into detail the system development life cycle (SDLC) and consider practical issues involved in the development of implementable system for user organizations.

**CSIS316 Computer Graphics** 3 Credits
The aim of this course is to develop an understanding of the mathematics and algorithms used in the synthesis of computer graphic imagery and animation. This is an introductory level course covering aspects of computer graphics including: techniques of graphic data input and output in terms of display devices and software; computer display of mathematical forms; animation, text processing and related topics; graphics display hardware image processing; 2D systems and transformations, etc

**CSIS321 Operations Research** 3 Credits
This course is design to provide students with a sound understanding of the role that management science plays in decision-making process. The focus is on the part of management science referred to as quantitative methods that can be applied and interpreted by the decision maker. Some of the topics covered include: Linear Programming, Linear Programming Applications, Simplex Method, Transportation, Project Management, Decision Analysis, and Multicriteria Decision Making.
CSIS322 Compiler Design 3 Credits
This component of the course provides the basics of compiler design. Topics covered include: Review of finite state automata, Lexical analysis, Pushdown machines, Context-free grammars, String translation grammars, Attributed translation grammars, Parser design, LL(1) grammars, Recursive-descent parsing, Error detection and recovery, Simple code generation techniques, Symbol-table management, Run-tie implementation issues, Brief overview of compiler optimization techniques, Introduction to bottom-up parsing, etc.

CSIS323 Operating Systems 3 Credits
This course provides students with a thorough understanding of the principles and design of operating systems. Topics covered include: process management, asynchronous concurrent processes and deadlock. Also virtual storage management, process scheduling, multiprocessing, disk scheduling, performance and security are covered.

CSIS 324 Software Engineering 3 Credits
The course surveys basic software engineering topics associated with the processes, documents, and products of the entire software life cycle. Topics include software evolution, project organization, and management, feasibility studies, product definition, design, implementation, and testing issues and the role of the software engineer within the life cycle. At the end of the semester students should able to create working software from requirements analysis to deployment.

Reading List
Schaati, Stephen R Object oriented and classical software Engineering

CSIS325 Research Methods 3 Credits
This course is designed to provide the fundamentals of research methodology applicable to Computer Science and its related areas. Analysis, critical reading, evaluation, and application of research needed for the development of skills in research proposals are emphasized. Topics covered include types of research, population sampling, research design, developing instruments of data collection, statistical treatment of data, hypothesis formation and its testing.
CSIS399 Industrial Attachment 3 Credits
The aim of this course is to ensure practical exposure to ICT use in industry. Arrangements will be made by the department on behalf of students to undertake supervised industrial attachments within selected local industries. Students will have supervisors who will be visiting the during the attachment to monitor their progress of work. At the end of the exercise, students and their industrial supervisors will be expected to write reports for grading. Students will also be required to give seminars on the industrial attachments within the first two weeks of the final year first semester of their study.

ADMN411 Entrepreneurship 3 Credits
The course introduces students to the theory and practice of initiating a business venture and organizing the necessary resources. This course provides students with an understanding of the business planning techniques, economic analysis, financial analysis, market analysis and human resource analysis which are utilized in conceiving and launching contemporary ICT related businesses.

The course also provides an understanding of the risks and rewards associated with entrepreneurship. It examines the principles and problems of operating a small business after it is established. Topics covered include a procedural system for establishing a new business, providing physical facilities, financing, organizing, marketing and managing of the small IT related businesses or enterprise. The course would include class project in which students work in teams to write business plans with the aim of attracting support for venture capital.

CSIS411 Information Systems Security 3 Credits
This course provides the underlying concepts and principles of computer security. Topics covered include: accidental and malicious damage, viruses, security threats, hacking and fraud, physical security, message authentication procedures, techniques and tools, back-up recovery, encryption and decryption, digital signatures, access privileges and control schemes, trusted systems, Internet and network security systems and mechanisms, firewalls etc.

CSIS412 Distributed Systems 3 Credits
This course focuses on distributed-object computing and its use in client/server and real-world computing applications. Topics covered include; Security, Operating System support, Time
and Global States, Distributed Objects and Remote Invocation, Interprocess communication, Networking and Internetworking, System Models, Characterization of Distributed Systems.

CSIS421 Computer Human Interaction  3 Credits
This module aims to provide a theoretical and scientific framework within which the student will be able to understand the impact of computers on humans. The student will develop skills and knowledge that will enable efficient and effective human-computer systems to be specified. They will develop an understanding of human factors and ergonomics that will enable high levels of system usability to be achieved. The module will introduce students to the available user interface technologies and to techniques for evaluating the relative merits of different types of interfaces.

CSIS421 Artificial Intelligence  3 Credits
This course focuses on knowledge (as distinct from data and information) to provide students with the basis for the behavior of many intelligent systems, both natural and artificial. The structures and knowledge representation techniques used to design intelligent systems, and examining different architectures for building intelligent systems as well as the issues involved in developing multi-agent worlds are also covered. Additionally, the course investigates techniques and principles behind designing and building robotic agents to sense, plan and act on their environment.

1. ELECTIVE COURSES

CSIS 413 Computer Simulation  3 Credits
An introduction to the methodologies used in the computer simulation of continuous and discrete systems. Topics include, Mathematical modeling, systems analysis, random number generation, Monte Carlo and other simulation techniques, simulation programmes and analysis of simulation output. Applications will be drawn from among the physical, biological, socio-economic and computer sciences.

CSIS414 Advanced Data Structures & Algorithm  3 Credits
The course exposes students to the study of the design and analysis of sorting, searching, matrix multiplication and other important algorithms with emphasis on structure, complexity
and efficiency. Topics are chosen from logic, graph theory and theory of functions. Data structures such as balanced binary trees, AVL trees and B-trees.

**CSIS415 Advanced Data Communication & Computer Network**  
**3 Credits**  
This course follows-on from COCS271 and deals with upper layer OSI protocols and services. Topics covered include: Detailed look at the OSI model, Broadband ISDN, High speed data networks, Network and Transport Layer, Session Layer, Presentation Layer and Introduction to ASN.1, Application Service Elements, X.400 Electronic Mail, FTAM file transfer, X.500 Directory Services, OSI Management, EDI; the Internet architecture and technologies; configuration and implementation of Internet-based systems and applications, current advanced topics and concepts in computer data communications and computer networks.

**CSIS 416 Cloud Computing & Emerging Technologies**  
**3 Credits**  
This course provides a hands-on comprehensive study of Cloud concepts and capabilities across the various Cloud service models including Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Software as a Service (SaaS), and Business Process as a Service (BPaaS). IaaS topics start with a detailed study the evolution of infrastructure migration approaches from VMWare/Xen/KVM virtualization, to adaptive virtualization, and Cloud Computing / on-demand resources provisioning. Mainstream Cloud infrastructure services and related vendor solutions are also covered in detail. PaaS topics cover a broad range of Cloud vendor platforms including AWS, Google App Engine, Microsoft Azure, Eucalyptus, OpenStack and others as well as a detailed study of related platform services such as storage services that leverage Google Storage, Amazon S3, Amazon Dynamo, or other services meant to provide Cloud resources management and monitoring capabilities. The SaaS and PaaS topics covered in the course will familiarize students with the use of vendor-maintained applications and processes available on the Cloud on a metered on-demand basis in multi-tenant environments. The course also covers the Cloud security model and associated challenges and delves into the implementation and support of High Performance Computing and Big Data support capabilities on the Cloud. Through hands-on assignments and projects, students will learn how to configure and program IaaS services. They will also learn how to develop Cloud-based software applications on top of various Cloud platforms, how to integrate application-level services built on heterogeneous Cloud platforms, and how to leverage SaaS and BPaaS solutions to build comprehensive end-to-end business solutions on the Cloud.
CSIS423 Advanced Network & Systems Administration 3 Credits
The course focuses on the administration of peer-to-peer and client/server networks: Planning, installation, server configuration, resource management, remote access, performance monitoring, and optimization. Microsoft Server 2003 is the operating system used for lab work.

CSIS424 Advanced Computer Architecture 3 Credits
This course provides an in-depth understanding of the hardware aspects of an advanced multiprocessor system. It also introduces the basic concepts and design techniques for integrated circuits. In particular, contrast is drawn with hardware design using discrete devices.
Topics covered include: RISC CPUs; memory management units, translation look aside buffers (TLBs); Unix memory management (hardware); cache theory and organization; cache analysis, victim caches; shared memory multiprocessors; cache coherency protocols; spin-lock algorithms; load locked/store conditional instructions; main memory (DRAMs, DRAM refreshing, DRAM interfacing, ECC, etc); graphics subsystems (VRAMs, colour palettes, monitors, mice). Also covered are: MOS Technology; nMOS Processes vs. CMOS Processes; Static CMOS; Dynamic CMOS; Pass Transistor Logic; Floor planning; Power Routing; Control and Data Routing; Area Estimation; Design Rules; Basic Gate Layout; Regular Layout Styles; Sticks Diagrams.
The course will also introduce students to VLSI technologies and systems.

CSIS425 Advanced Database Concepts and Technologies 3 Credits
Discussed further and detail Distributed Database Design, Query Processing and standard Optimization, Concurrency Control (Ensuring consistency; transaction; serializability; locking; timestamp ordering), Recovering techniques and checkpoints, Introduction to Data Mining and data mining algorithms including 1R, Naïve Bayes, C4.5, Apriori, M prime and Linear regression.

CSIS426 Advanced Systems Analysis & Design 3 Credits
The course is designed to help students understand and use basic techniques of data modeling using entity relationship diagrams and the Unified Modeling Language (UML). The course also addresses emerging or advanced topics in the development of information system
applications such as socio-technical or soft-system methods, methodology engineering, or workflow system design. Students will be required to create process models to document the processing requirements of a business system using UML.

CSIS 427 Mobile Technologies & Services

This course aims to provide in-depth GSM/UMTS technology and various Services provided. Topics covered includes PSTN, Mobile systems, operating principles of wireless, multiple Access Techniques, Cellular Concepts, GSM Radio Fundamentals, Frame structure and Radio Channels, GSM Network Architecture, GPRS and EDGE Network Architecture, CDMA Technology Overview, Evolution of 3GPP networks, 3GPP UTMS network Architecture, Security features in GSM & UMTS Networks, Call Processing in GSM & UTMS Networks, Mobility Management in GSM & UTMS, networks, Wireless Data Networks, WiFi & WiMax Concepts, GSM Radio and Core Network Planning, Basic Services, Supplementary Services & Mobile – VAS trends, IN Service Platform, CAMEL, Introduction to LTE Networks and Mobile Billing Systems. At the end of this course, Students are expected to have a sufficient knowledge in operation and maintenance of the GSM/UTMS systems.

CSIS457 Managing Information Systems Project

This course is aimed at helping students to understand the tools and techniques of information systems project management such as: project selection methods, work breakdown structures, network diagrams, critical path analysis, and critical chain scheduling, time and cost estimates, earned value management and motivation theory and team building.
### 6.3 BSc (Hons.) INFORMATION COMMUNICATION TECHNOLOGY

(a) Structure of the programme (Semester-by-semester schedule/structure of course, showing the credit value of each course).

#### FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
<th>Second Semester</th>
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<tr>
<td>INCT 111 ICT Foundation I</td>
<td>3</td>
<td>INCT 121 ICT Foundation II</td>
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<tr>
<td>CSIS111 Intro. to Structured Programming</td>
<td>2</td>
<td>CSIS121 Programming with C++ (Console)</td>
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<td>3</td>
<td>ENGL121 English Language</td>
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<tr>
<td>PYSC111 Introduction to Psychology</td>
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#### SECOND YEAR

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<tr>
<td>INCT211 Digital Electronics</td>
<td>3</td>
<td>INCT 221 Management Information Systems</td>
<td>3</td>
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<tr>
<td>INCT 212 Data and File Structures</td>
<td>3</td>
<td>CSIS221 Computer Organization &amp; Architecture</td>
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<td>INCT213 ICT Policy &amp; Law</td>
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<td>CSIS222 Application Systems Programming</td>
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<td>CSIS212 Object Oriented Programming with JAVA</td>
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<td>CSIS223 Digital Logic &amp; Design</td>
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<td>ADMG211 Fundamentals of Management</td>
<td>3</td>
<td>CSIS225 Database Concepts &amp; Technologies</td>
<td>3</td>
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<td>ADAC211 Principles of Accounting</td>
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<td>MATH221 Probability and Statistics</td>
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#### THIRD YEAR

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<tr>
<td>INCT 311 Multimedia Application Systems Development</td>
<td>3</td>
<td>INCT 321 Management Science</td>
<td>3</td>
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<tr>
<td>INCT 312 ICT Ethics</td>
<td>3</td>
<td>INCT 322 Mobile Application Development</td>
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<td>CSIS313 Web Application Programming</td>
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<td><strong>INCT 323 ICT Practicum</strong></td>
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<td>CSIS314 Data Communication &amp; Computer Networks</td>
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<td>CSIS323 Operating Systems</td>
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<td>CSIS315 Systems Analysis &amp; Design</td>
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<td>CSIS324 Software Engineering</td>
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<td>ADMIN311 Entrepreneurship</td>
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<td>CSIS 325 Research Methods</td>
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6.3 INCT Course Descriptions

6.3.1 INCT Required Courses

SHORT COURSE DESCRIPTION

INCT 111 Information Communication Tech. Foundation I 3 Credits

This course provides a basic introduction to computer systems and computing. Students are taken through the hardware and software components of a computer system and introduced to the fundamentals of computer network system. Topics to be covered include input/output devices, systems software, computer ethics, privacy and security, telnet and lurking. Students will also be introduced to basic computing using standard application packages namely word processing, spreadsheets, presentation and database packages.

Reading List


Johnson, Steven (1997) Interface culture – How new technology transforms the way we create and communicate, Harpesan

CSIS 111 Introduction to Structured Programming 3 Credits

This course assumes no programming language experience. It provides the beginning programmer with a guide to developing structured program logic. Topics covered include: an overview of computers and logic, computer program structure, modules, hierarchy charts,
making decisions, looping, control breaks, arrays, files, object-oriented programming and system modelling with UM.

**Reading List**


McCool, Michael James Reinders and Arch Robison, (2012) *Structured Parallel Programming: Patterns for Efficient Computation*

Stenerson, Jon, (2011), *Quick Start to Programming Alternative Control Logic Languages*

**MATH 111: Algebra I**  
3 Credit

Indices and logarithm, equations and inequalities, systems of equations in two and three variables, using matrices and determinant to solve systems of equations (Cramer’s rule), quadratic equations and inequalities, mappings and functions, polynomial arithmetic and polynomial function, series and sequence, Trigonometric functions.

**INCT 121 Information and Comm. Technology Foundation II**  
3 Credits

This course provides a good appreciation of the fundamentals of computer architectures and their operation. It covers the following topics: number systems; basic computer components; the fetch-decode-execute cycle; branch instructions and flow control; addressing modes; stacks and subroutines; input output; interrupts; exceptions; introduction to HTML.

**Reading List**


**CSIS 121 Programming with C++ (Console)**  
3 Credits

The course covers language syntax, expressions and functions with parameters, conditions, loops, arrays and pointers. Object oriented programming concepts: inheritance, polymorphism, operator overloading and encapsulation. Other Object oriented features like Abstract Classes, Virtual Functions, Friend Functions, Templates, Memory management, File handling, Error and Exception Handling are taught using C++ for all programming assignment.

**Reading List**
MATH 221 Probability and Statistics  
This course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The four broad conceptual themes are exploring data, planning a study, anticipating patterns, and statistical inference. Upon successful completion of this module, students will be able to demonstrate a satisfactory performance in the following topical areas: Introduction to Statistical Methods, Graphing and tabulating data, describing data sets, central tendency, variability and skew, normal curve and standard scores, correlation and regression, proportions and contingencies, Sampling and statistical inference, Probability Distributions, Mean and Variance, Statistical Estimation and Hypothesis Testing, Bayesian Statistics, Random Event and Random Variables.

Reading List:
Pelos, Marilyn K. i, Sandifer, Thereseah M., Elementary Statistics
Gordor, Benony K. & Howard, Nathaniel K. Introduction to Statistical Methods Dept. of Mathematics & Statistics, Univ. of Cape Coast

ADMG 211 Fundamentals of Management  
This course presents the basis of Theory and Science of Management. Management is an art, which is best executed by the application of scientific fundamentals. The functions of management will be introduced – Planning, Organizing, Controlling, and Leading. This will provide a conceptual framework for students to understand the practice of management as well as the challenges and issues confronting Ghanaian managers within the global context.

Reading List:
Harey, Jerry B. Principles of Management, The Abilene Paradox
ICNT 211 Digital Electronics  
3 Credits

The aim of the course is to provide a good grounding in the principles and operations of semiconductor devices and introduce students to practical issues involved in using electronic circuits and systems. Topics include propagation delay, switching speed limitations, pulse propagation along transmission lines, transmission impedance, noise, power supply regulations and the relating merits.

Reading List

Kieitz, W. Digital Electronics. Practical Approach, Prentice Hall, UK

INCT 212 Data and File Structures  
3 Credits

It is a particular way of storing and organising data in a computer so that it can be used efficiently. Data Structures are used in almost every program or software system. Specific data structures are essential ingredients of many efficient algorithms and make possible the management of huge amount of data, such as large data base and internet indexing services.

This course starts with an introduction of basic structures like arrays, stacks and queues. The subject further explores trees, like general trees, binary tree, BST and balanced trees. It discusses the dynamic Memory Management and file structures. It also explains about the searching and sorting techniques on external storage, efficiency and algorithm complexity.

Reading List

R. Kruse, 3rd Edition, Data structures and program designs, Prentice Hall India
ADAC 211  Principles of Accounting  3 Credits

This is a foundation course that introduces students to the basic Principles in Accounting (Book-keeping). Areas to be covered include the Nature, role and principles of Accounting with emphasis on the Accounting Equation and the Balance Sheet, the double entry book-keeping; the general journal; the Books of Prime Entry (Daybooks); the Cash Book and the petty cash book; the Ledger and the nature of the Trial Balance. This course is also intended to familiarize the students with principles and methods of accounting primarily concerned with financial data gathering and presentation in the form of general-purpose external financial statements for sole proprietors. Specific areas include: Nature and Purpose of Accounting, Fundamentals of Accounting, Adjustments; Bank Reconciliation; the preparation of simple financial statements (Profit & Loss, Balance Sheet, Cash Flow statements) using the Trial Balance and accounting for non-profit making organizations.

Reading List


Financial Accounting Fundamentals – ICA Ghana

INCT 221 Management Information Systems  3 Credits

This course helps you to understand what IT components are available and how you can utilize appropriate IT applications for success. You will learn the terminology used in the field of IT and how IT principles can apply to your businesses. The course stresses the competitive advantage of using IT and the return on investment that you can see. It focuses on the basic principles of Information Technology: hardware and software components, database technology, telecommunications and networking, e-commerce and e-business, Enterprise Resource Planning (ERP), Decision Support Systems (DSS), Artificial Intelligence (AI) and Expert Systems (ES), systems development and implementation, and the ethical and societal issues involved in IT.

Reading List

Stair, Ralph M. –(2011) Principles of information systems, Oxford university press, USA

Laudon/Laudon –(2008) Information systems & the internet, Harcourt Brace
INCT 311 Multimedia Application Systems Development  3 Credits

The course provides students with the understanding of Multimedia Application Systems and technical aspects of web-site construction. In this course, students will study the basics of multimedia system and of the different elements of multimedia systems. The theories of Authoring systems, its tools and development areas would also be covered. The topic areas include history and components of Multimedia Systems, HTML, CGI, JavaScript, Java fundamentals of Digital audio, video, images, typography, photography, cinematography, music, sound and interactive multimedia, colours, legal issues, usability testing and security.

Reading list

Tilley, Lorna Derek Park, (2005) Multimedia Applications [Intermediate 1],

INCT 312 ICT Ethics  3 Credits

The course aims at providing students with an understanding of the nature and range of ethical problems associated with the use of ICT within the business and non-business environment. Legal and professional issues of computing are also covered since information and communication technology is an area of work which employs and affects a large number of people in the society. The course thus equips students with the tools to build information systems to the highest ethical and professional standards. Topics covered include piracy, hacking, viruses, responsibility and liability for the use of software, cyberporn, computerized invasion of privacy, computers in the workplace, and the use of artificial intelligence and expert systems.

Reading list

Quinn Mike (2013), 5th Ed. Ethics for the Information Age, Addison-Wesley

INCT 321 Management Science  3 Credits

95
Management in the current competitive and complex business environment calls for excellence in decision making. Decisions are made based on sound analysis of facts. The objective of the course is to enable the student to properly use common quantitative modeling tools to support business decision making.

This introductory course covers fundamental quantitative methods for business decision making: problem formulation, analysis and use of management science tools: Optimization (including linear and integer programming), simulation, and Decision analysis.

Topic areas include; pricing, product feature selection, sales force allocation, advertising scheduling, operations (workforce scheduling, production planning, logistics, and finance (budgeting, cash flow, investment portfolio). A significant portion of class time will be devoted to examples that are drawn from the functional areas such as operations management, finance and marketing. While involved in modeling, understanding the implications and limitations of the model will be emphasized.

**Reading List**

Prof. Kenneth D. Lawrence, (2002) Advances in Business and Management Forecasting, New Jersey Institute of Technology, USA


**INCT 322 Mobile Application Development**

This course introduces students to the theoretical foundations of mobile computing systems, wireless networks, advanced mobile applications, Architectures of mobile distributed computing systems; wireless network classification and management; mobile distributed file systems; failure recovery, fault tolerance and reliability of mobile computing systems; replication in mobile distributed systems; case studies for distributed mobile database systems; mobile information systems; advanced mobile computing applications and the Internet; research trends; synchronisation and global time concepts; transaction management mechanisms for mobile computing including android applications.

**Reading List**


Shotts, Kerri (2013), Phonegab 2 Mobile Application Development

Rodger, Richard (2011), Beginning Mobile Application in the Clouds

**INCT 325 Research Methods**

This course introduces students to the theoretical foundations of mobile computing systems, wireless networks, advanced mobile applications, Architectures of mobile distributed computing systems; wireless network classification and management; mobile distributed file systems; failure recovery, fault tolerance and reliability of mobile computing systems; replication in mobile distributed systems; case studies for distributed mobile database systems; mobile information systems; advanced mobile computing applications and the Internet; research trends; synchronisation and global time concepts; transaction management mechanisms for mobile computing including android applications.

**Reading List**


Shotts, Kerri (2013), Phonegab 2 Mobile Application Development

Rodger, Richard (2011), Beginning Mobile Application in the Clouds
The course exposes students to definition and purposes of research, types of research problems in computer science. It also exposes students to research design, instruments, data collection and analysis as well as use of sample tests (z, student and chi-square tests) and research literature in education.

**Reading List**


Dr. HinnehKusi (2013), Doing qualitative research, A Guide for Research, Teachers College Press


**INCT 323 ICT Practicum**

The aim of this course is to ensure practical exposure to ICT use in industry. Arrangements will be made by the department on behalf of Students to undertake supervised industrial attachments within selected local industries. Students will have supervisors who will be visiting during the attachment fro tie to tie to monitor their progress of work. At the end of the exercise, students and their industrial supervisors will be expected to write reports for grading. Students will also be required to give seminars on the industrial attachments within the first two weeks of the final year first semester of their study.

**INCT 411 Managing ICT Projects**

Managing ICT project provides the following information necessary to manage an organization effectively and the information generated are generally considered essential components for product business decisions.

This course provides students an understanding of the principles of project management, including those that relates to project planning, monitoring and control, change control and configuration management, effort estimation, quality and risk management and communication between project Stakeholders.

**Reading Lists**


Schwalbe, Kathy (2013), 7th Ed. Information Technology Project Management, Cengage Learning

INCT 412 Information Systems Security 3 Credits

This course provides the underlying concepts and principles of computer security. Topics covered include: accidental and malicious damage, viruses, security threats, hacking and fraud, physical security, message authentication procedures, techniques and tools, back-up recovery, encryption and decryption, digital signatures, access privileges and control schemes, trusted systems, Internet and network security systems and mechanisms, and firewalls.

Reading List


Gmob W.A (2013), 1st Ed. Management Information System

INCT 413 Distributed Systems 3 Credits

This course focuses on distributed-object computing and its use in client/server and real-world computing applications. Topics covered include; Security, Operating System support, Time and Global States, Distributed Objects and Remote Invocation, Interprocess communication, Networking and Internetworking, System Models, Characterization of Distributed Systems.

INCT 491 Project Work I 3 Credits

The project forms a major part of the course. Its objective is to provide the student with the opportunity to apply knowledge obtained from the rest of the course to the solution of a practical problem. Where possible, the project will be taken in association with an external organization in industry, commerce or local government to outline a problem of practical significance. A typical project will involve the system analysis and design of a computer based system.

INCT 450 Data Mining and Warehousing

The course covers data mining functionalities, data processing, data warehousing and OLAP technology, data cube computation and data generalization, mining frequency patterns, associations and correlations; classifications and prediction; cluster analysis, mining streams, time series, graphic mining, social network analysis; mining object, multimedia text, applications and trends.
CSIS 421 Human Computer Interaction 3 Credits

This module aims to provide a theoretical and scientific framework within which the student will be able to understand the impact of computers on humans. The student will develop skills and knowledge that will enable efficient and effective human-computer systems to be specified. They will develop an understanding of human factors and ergonomics that will enable high levels of system usability to be achieved. The module will introduce students to the available user interface technologies and to techniques for evaluating the relative merits of different types of interfaces.

Reading List

Sharp, Rogers and Preece (2008), Beyond Human Computer Interaction Wichey publishing Inc


INCT492 Senior Project II 3 Credits

The project forms a major part of the course. Its objective is to provide the student with the opportunity to apply knowledge obtained from the rest of the course to the solution of a practical problem. Where possible, the project will be taken in association with an external organization in industry, commerce or local government to outline a problem of practical significance. A typical project will involve the system analysis and design of a computer based system.


7.0. CHAPTER SEVEN

**Principal Officers**

<table>
<thead>
<tr>
<th>Position</th>
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<tr>
<td>Chairman of Council</td>
<td>Dr. Ernest Ansah</td>
</tr>
<tr>
<td>Vice President (Institutional Advancement)</td>
<td>Mrs. Ingrid Ansah</td>
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<tr>
<td>President</td>
<td>Prof. Jacob J. Nortey</td>
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<tr>
<td>Vice President (Academics)</td>
<td>Dr. Benjamin Ghansah</td>
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<td>Dean of Computer Sciences</td>
<td>Dr. Gabriel Ofoe Canacoo</td>
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<td>Ag. Registrar</td>
<td>Mr. Francis K. Dzineku</td>
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<td>Quality Assurance</td>
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