



**The University of the Future**

**ACCRA INSTITUTE OF TECHNOLOGY**

# **Graduate Research Handbook 2009-2010**



**The Professor Francis Allotey  
Graduate School (AGS)**

## Office of Graduate Studies



**“To know the road ahead, ask those coming back”**

**----- Chinese Proverb**





**You see things and you say "Why?"; but I dream things  
that never were and I say "Why not?"**

**— *George Bernard Shaw***

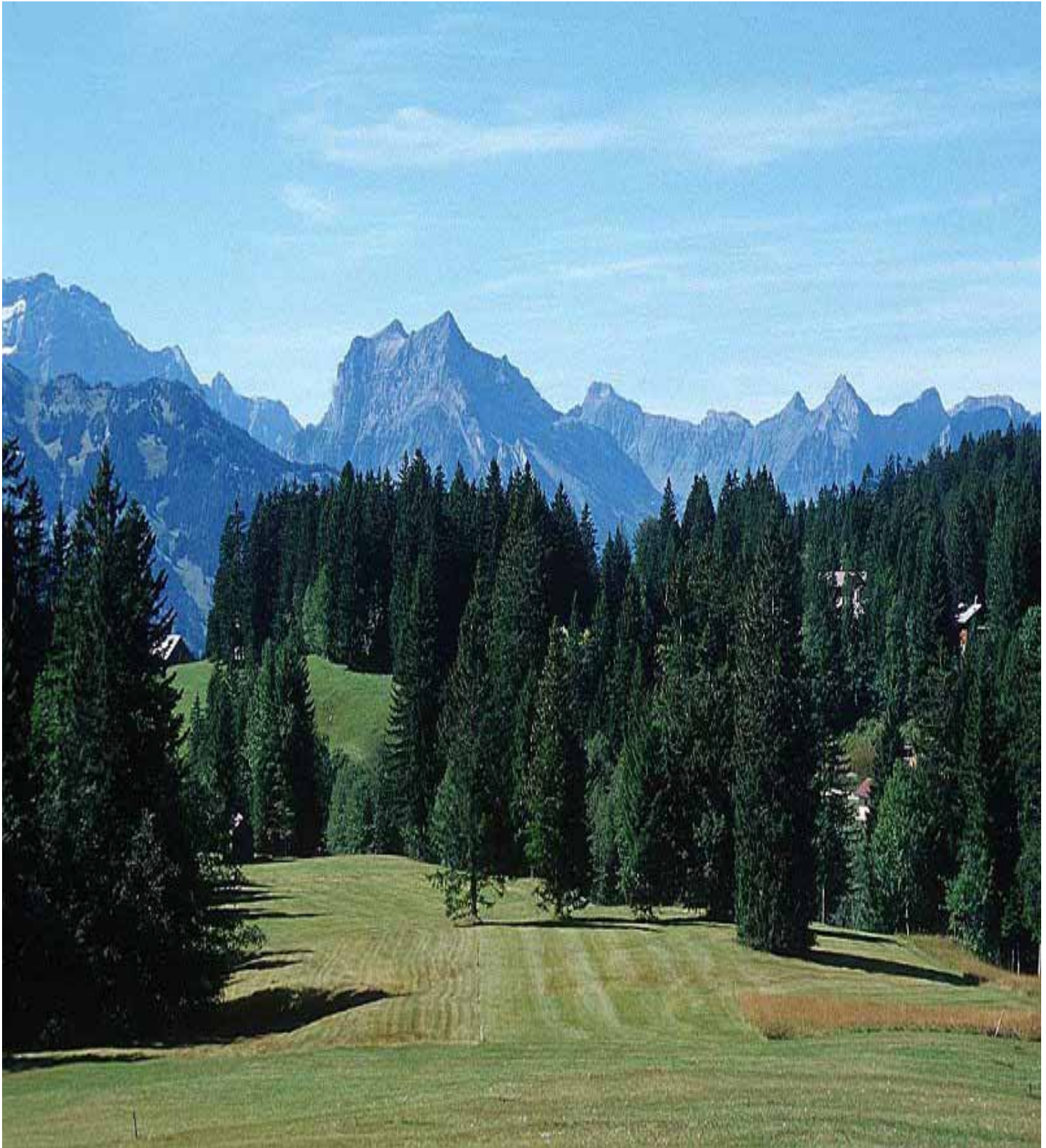




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## ACCRONYMS

<b>AGS</b>	The Professor Francis Allotey Graduate School
<b>BoT</b>	Board of Trustees
<b>CSIR</b>	Council for Scientific & Industrial Research
<b>DGS</b>	Dean of Graduate Studies
<b>DoS</b>	Dean of School
<b>GBS</b>	Graduate Studies Board
<b>GICTeC</b>	Graduate Innovation and Creative Technology Center
<b>GPSS</b>	Graduate Program Support Structures
<b>HoD</b>	Head of Department
<b>OGS</b>	Office of Graduate Studies
<b>PRC</b>	PhD Research Committee
<b>SRC</b>	Students Representative Council
<b>UAC</b>	University Advisory Council



**THE AIT GRADUATE RESEARCH HANDBOOK- A PREAMBLE**

The AIT Graduate Research Handbook is designed, among other things, to address issues aimed at facilitating a conducive academic support environment to enhance postgraduate (graduate) research work at the University.

The focus of this Handbook is on PhD research work and it provides guidelines on: the responsibilities and the functions of the Graduate Study Board (GSB); the administrative support functions of the Office of Graduate Studies (OGS); the functions and responsibilities of the various subject-matter PhD Research Committees (PRCs); the responsibilities and the role of the PhD Supervisors; the responsibilities of the PhD Research Students, among others.

Graduate-level research students usually face a number of challenges that may impede their progress towards completing their research work. Some of these challenges are:

- lack of understanding by the student of what is expected in a research degree and from the supervisor;
- inappropriate choice of a research topic;
- inappropriate matching of supervisor and the student's research project;
- insufficient contact with, and feedback from, the supervisor, particularly in the critical early stages of the project;
- a sense of intellectual and social isolation of the student from the academic life of the university or faculty

Detailed in this Handbook are some procedures, guidelines, and processes that the University has put in place to assist our graduate research students to overcome these and other challenges that could obstruct their progress towards completing their studies.

Also provided in this Handbook are guidelines and procedures relating to PhD research administrative and examination responsibilities and activities.



## ABOUT AIT

**‘He who adds not to his learning diminishes it’  
— *The Talmud***

AIT is an independent technology-focused university committed to academic excellence, cutting-edge research and R&D work. The University is modeled on internationally recognized institutes of technologies like the Massachusetts Institute of Technology (MIT), USA and the Indian Institute of Technologies (IITs), among others. AIT consists of five schools: School of Advanced Technologies, Engineering and Science (SATES); Advanced School of Systems and Data Studies (ASSDAS); School of Professional Certification Programs (SPCP); the AIT Business School (ABS); the AIT Flying School (AFS); the Professor Francis Allotey Graduate School (AGS).

Also operating within the AIT system as constituent education and training provision divisions are the AIT Virtual University (the AIT Virtual Campus), the **AIT Online** - *Your e-University*, the *Institute of Lifelong Learning (IL<sup>3</sup>)* and the *AIT Institute of Career Advancement (ICA)*

### **Our “Cradle of Excellence” Mission**

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Our mission is to become a “cradle of excellence” in education, training and research through providing leadership in the educational and the technological world by carefully selecting students of character, integrity, determination and motivation, and choosing individuals of outstanding character, commitment, ability and vision to serve as trustees, officers and faculty. We by this mission are committed to pursuing those areas of teaching, training, research and scholarship that would most help to develop the individual, and promote knowledge, excellence, and industry in the service to humanity.

In line with our mission, AIT values integrity, collaboration, efficiency, creativity, innovation, and inclusiveness in all that it does and seeks to promote and support excellence in education for its students, faculty, departments, and the university as a whole. AIT, in the pursuance of its “cradle of excellence” mission, prides itself on its motto: *service* to humanity, *leadership* and *success* in scholarship.

### **Our Vision for the Future**

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AIT’s vision is to be a first-class student-focused institution of higher learning, professional training and research – striving for excellence in teaching, scholarship, research, and service. It will provide its students, faculty, and staff with challenging and rewarding academic experience and supportive working and learning environment that brings out of them their individual best.

AIT will seek to attract and develop outstanding students and will be recognized as a leader in preparing top-class articulate, innovative, confident, self-assured, and professionally skilled graduates that can without doubt successfully compete on the international job market and make their mark in their chosen career.



AIT will be a cutting-edge R&D and research-intensive institution and will attract, recruit and retain the best faculty, research staff and students whose research work can enhance teaching and learning at the university and contribute fundamentally to the advancement of society at large.

AIT will be responsive to technological advances, changing trends in society and the economy in pursuance of its “cradle of excellence” mission and will in all its endeavours live up to its motto: *service* to humanity, *leadership* and *success* in scholarship.

## **Promoting a Student-Centered Graduate Research at AIT**

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AIT’s highest obligation as a university is to prepare our students who will live most of their lives in the 21<sup>st</sup> century – a century that will no doubt provide our graduates with significant new challenges and opportunities. In line with our commitment to honour this obligation, AIT aspires to become a first-class student-centered research support institution, where support for our research students’ personal and academic development is embedded in the ethos of the university.

## **The AIT Board of Trustees**

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The AIT Board of Trustees (BOT) is the highest decision making organ of the University. The membership of the Board is made up of eminent and internationally distinguished personalities comprising:

**Professor Francis K. A. Allotey**, Internationally Renowned Physicist, Mathematician and Computer Scientist; and Former Pro-Vice Chancellor, Kwame Nkrumah University of Science and Technology (KNUST), *Chairman*

**King Tackie Tawiah III**, The Ga Mantse, *Member*

**Professor Ivan Addae-Mensah**, Former Vice Chancellor, University of Ghana, *Member*

**Dr. K.Y. Amoako**, Former United Nations Under-Secretary General and Executive Secretary of the United Nations Economic Commission for Africa, *Member*

**Professor Edward S. Ayensu**, Former Director & Senior Research Scientist, Smithsonian Institute, USA and Chairman, The World Bank Inspection Panel, *Member*

**Professor Edward S. Ayensu**, Former Director & Senior Research Scientist, Smithsonian Institute, USA and Chairman, The World Bank Inspection Panel, *Member*

**Professor Samuel K. Adjepong**, Former Vice Chancellor, University of Cape Coast; President, Methodist University College of Ghana; Chairman, Nat. African Peer Review Mechanism Governing Council, *Member*

**Dr. Grace Bediako**, Government Statistician, Ghana Statistical Service, *Member*

**Professor Jophus Anamuah-Mensah**, Former Vice Chancellor, University of Education, Winneba, *Member*

**Rev. Ama Afo Blay**, Former Director General, Ghana Education Service (GES), Member  
**Professor Clement Dzidonu**, President of AIT-The University of the Future, *Member Secretary*

**Mr. Joe Issacher**, Head of the Ghana Civil Service, *Member*

**Professor Emmanuel Owusu-Bennoah**, Former Director General, Council for Scientific and Industrial Research (CSIR), *Member*

**Mr. K.S Yamoah**, Managing Director, The Ghana Stock Exchange (GSE), *Member*

## **The University Advisory Council**

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The AIT University Advisory Council (UAC) whose membership is made up of distinguished personalities from business, public sector, labour, academia, and the professions. The council assists the Board of Trustees and Principal Officers and key constituent bodies of the University in an advisory capacity on matters relating to: the university's strategic, operational and financial direction; its academic, professional, and research programs; and on faculty and students issues. The current membership of the University Advisory Council is made up of:

**Professor E.H.K. Akaho**, Director General, Ghana Atomic Energy Commission (GAEC)

**Professor Walter Alhassan**, Former Director-General, Council for Scientific and Industrial Research (CSIR), and Chairman of the Council of the Meridian University College, Ghana

**Nii Adote Obuor II**, Sempe Mantse

**Mr. Kwasi Adu-Amankwah**, Former General Secretary, Ghana Trade Union Congress (TUC)

**Alhaji Hamidu Ibrahim Baryeh**, Executive Secretary, Lands Commission

**Ms. Mary B. Buako**, Chief Executive Officer, Chartered Institute of Bankers, Ghana

**Dr. Osei K. Darkwa**, President, Ghana Telecom University College

**Mrs. Josephine Okutu**, National President, Chartered Institute of Marketing, Ghana (CIMG)

**Mr. Saied Fakhry**, Chairman, Interplast Limited

**Dr. Aida Opoku-Mensah**, Director, ICT and Science & Technology Division, United Nations Economic Commission for Africa (UNECA)

**Ing. Dr. Essel Ben Hagan**, President, Ghana Institution of Engineers (GHiE)

**Mrs. Leticia Osafo Addo**, Vice President, Association of Ghana Industries (AGI)

**Dr. Osei Boeh Ocansey**, Executive Director, Private Enterprise Foundation (PEF)



**Mr. Frank Ocran**, Executive Chairman, State Enterprises Commission (SEC)

**Professor T. B. Wereko**, Former Director General, GIMPA

**Mrs. Florence Seriki**, Managing Director/CEO, The Omatek Group of Companies

**Dr. Benjamin Aggreedy-Ntim**, Former Minister of Communications, Ghana

**Professor Paa-Bekoe Welbeck**, Vice President, Advancement and Innovations, AIT and Former Vice President for Technology, Virginia Union University, USA



## Introducing the President of AIT

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**Professor Clement Dzidonu**, the President of AIT, is a world renowned Professor of Computer Science, educator and author. He received a Meritorious Award for Distinguished Services to the Field of Computer Science in 1998.

In 1999 he was awarded the **Outstanding People of the 20th Century Medal** by the International Biographical Center, Cambridge, U.K for his contribution to university education in general and to the field of computer science in particular.

Professor Dzidonu is listed in the **Who's Who in the World** as a distinguished educator and also acknowledged in the **Who's Who in Science and Engineering** in the USA.

In recognition of his immense contribution to the field of Technology, he was awarded the **World Technology Award in 2003**; the first and only African to win this prestigious international award. The other winners of this award were: Tony Blair, the Former British Prime Minister and Al Gore, the former Vice President of the USA and a Nobel Laureate (2007)

Professor Dzidonu brings to his job as AIT President vast experience in the area of providing modern university education in the technological era. His vision as the Founding President of AIT is to do all he can to work towards the achievement of the “cradle of excellence” mission of the University. He heads an excellent team of equally distinguished and experienced academics and university administrators committed to this mission.

## **GRADUATE STUDIES AT AIT**

**‘Who dares nothing, need hope for nothing’  
—Johann von Schiller**

### **The Allotey Graduate School (AGS)**

The Professor Francis Allotey Graduate School (aka The Allotey Graduate School) coordinates all graduate programs of the Accra Institute of Technology (AIT). It is central to the University’s identity and aspirations as a center for graduate education, training, and research. The AGS serves as the central agency for the administration of graduate programs offered by the various schools of the University. The AGS as part of its coordination role, serves as the hub for all graduate level research activities, including those relating to seminars, conferences, mobilization of research funding, etc.

The Allotey Graduate School also organizes a wide range of high-impact professional academic research skills, and research leadership programs, and workshops targeted at graduate students at the Master’s and the PhD levels

The AGS is made up of a number of constituent entities and units, the key ones are: the Office of Graduate Studies (OGS) and the Graduate Innovation and Creative Technology Center (GICTeC)

### **The Graduate Programs at AIT**

Graduate (postgraduate) programs at AIT include: Postgraduate Certificate programs; Postgraduate Diploma programs; Master’s degree programs and PhD degree programs. Subject areas include: Business Administration, Computer Science, Education, Science, Information Technology, Engineering among others.

AIT also offers a number of special graduate level courses and programs targeted at our registered graduate students and professionals in the field of engineering, computer science, business, management, information technology, education and science

### **Postgraduate Certificate/Diploma Programs**

The postgraduate certificate programs are normally of one to two semesters duration. The postgraduate diploma programs are usually of one academic year or 12 months duration. Subject areas covered include: Business Administration, Computer Science, Education, Project Management, Science, Information Technology, Engineering among others.

### **Master's Degree Programs at AIT**

A Master’s Degree program at AIT can be completed within a minimum of two years and a maximum period of four years. Master’s degree programs are being offered in Business Administration, Computer Science, Education, Project Management, Science, Information

Technology and Engineering. These programs are categorized under three (3) structures as follows:

Structure I – Master's Degree by Research.

Structure II – Master's Degree by Coursework and Research.

Structure III – Master's Degree by Coursework.

Master's Degree by Research (Structure I)

Students pursuing their degree under this structure have to take a sustained and in-depth study on a particular research topic, which they will then write in the form of thesis. Students undertake research under the supervision of a Supervisor appointed by AIT. The Supervisor will ensure that the student is making progress towards completing the research on time. Students may be required to enroll in some compulsory core courses on-campus/online and/or attend tutorial sessions/seminars on specific topics before undertaking their research to strengthen their basic knowledge in areas considered necessary to advance their research work. At the end of the program, students are required to submit a thesis for examination. The thesis must be defended at a public face-to-face *viva voce* session. Visit [www.ait.edu.gh/open](http://www.ait.edu.gh/open) for the current list and the details of the *Master's Degree by Research* programs.

Master's Degree by Coursework and Research (Structure II)

Students pursuing their Master's degree under this structure are required to fulfill a minimum number of credit hours of coursework and sit for examinations. Following the successful completion of the relevant coursework component, the student will be assigned a supervised research project leading to the submission of a dissertation for examination. Visit [www.ait.edu.gh/open](http://www.ait.edu.gh/open) for the current list and the details of the *Master's Degree by Coursework and Research* programs.

Master's Degree by Coursework (Structure III)

Students pursuing their Master's degree under this structure are required to fulfill a number of credit hours of coursework and sit for examination. Candidates will also be required to attend seminar classes.

Assessment will normally be based on assignments and/or tests/exams and/or presentations of a substantial project paper or case study. Students are required to fulfill the required number of credit hours prescribed and sit for written examinations for the courses registered at the end of the trimester. Students will also be required to undertake (under supervision) a short graduate level student research project that will lead to the submission of a dissertation for examination. Visit [www.ait.edu.gh/open](http://www.ait.edu.gh/open) for the current list and the details of the *Master's Degree by Coursework* programs.



### **Doctor of Philosophy (PhD) Programs at AIT**

A Doctoral (PhD) Degree program can be completed within a minimum of four (4) years and a maximum period of eight (8) years. The PhD degree programs are designed to produce cutting-edge researchers and top-notch scholars in specific fields to cater for the needs of industry and commerce; and as well meet the needs of universities and research institutions for high-caliber academics, researchers and critical subject area specialists.

The PhD programs comprised of three parts:

**Part I - Compulsory Core Courses:** These are program specific compulsory courses that PhD students on specific programs are required to take before proceeding onto their research work.

**Part II – Research:** -- PhD candidates will be required to conduct the research and prepare their thesis under the guidance of Supervisor(s). PhD candidates will be required to meet their supervisor(s) four (4) times in a trimester to consult on their work and progress made. They may also be required to occasionally attend and present progress report on research work at special seminar sessions to be hosted by the relevant subject matter PhD Research Committee.

**Part III - Thesis Examination:** ---- In Part III the candidate will submit his/her thesis for examination. Internal examiner(s) and one external examiner will be appointed to assess the PhD thesis. Candidates will be required to defend their thesis at a public face-to-face *viva voce* session.

Visit [www.ait.edu.gh/open](http://www.ait.edu.gh/open) for the current list and the details of the PhD programs being offered at AIT.

### **Notes on Extension**

Graduate students who are not able to complete their studies within the stipulated maximum period under the Doctoral Degree Program may apply for an extension of not more than one (1) academic year by making a written application to the Dean of Graduate Studies. The application must be made three (3) months before the end of the duration of study.

Failure to complete a program within the stipulated duration may result in the termination of candidature.



## **Applying to Pursue Graduate Studies at AIT**

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### **Application**

Prospective applicants will need to complete and submit the Graduate Studies Application for Admission Form with necessary transcripts and certificates to the Office of Graduate Studies (OGS). Applications are accepted every trimester/semester

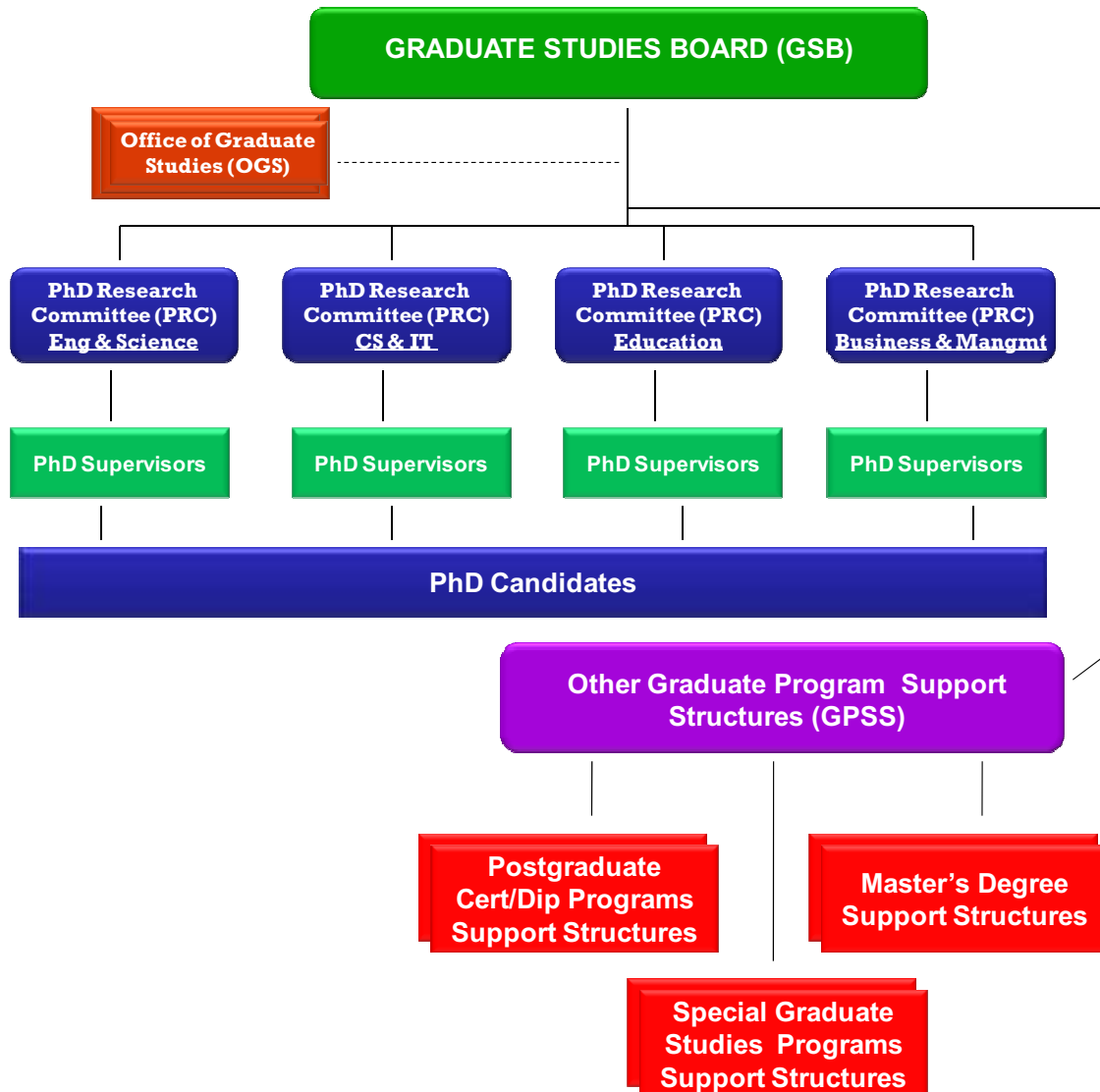
### **Approval**

When the admission documents are deemed complete by the OGS, the application is then forwarded to the AIT Admissions Office for processing. The processed application is then forwarded to the OGS who then advises the Dean of Graduate Studies (DGS) on the outcome of the application. The OGS submits the application to the Graduate Studies Board (GSB) via the DGS.

After the Graduate Studies Board meeting, the OGS notifies the applicant of the decision on admission. The decision of the Graduate Studies Board is copied to the Academic Standards and Awards Board.

## The AIT Graduate Studies Support Organizational Structure

The overall organizational structure for supporting graduate research at AIT is presented below.



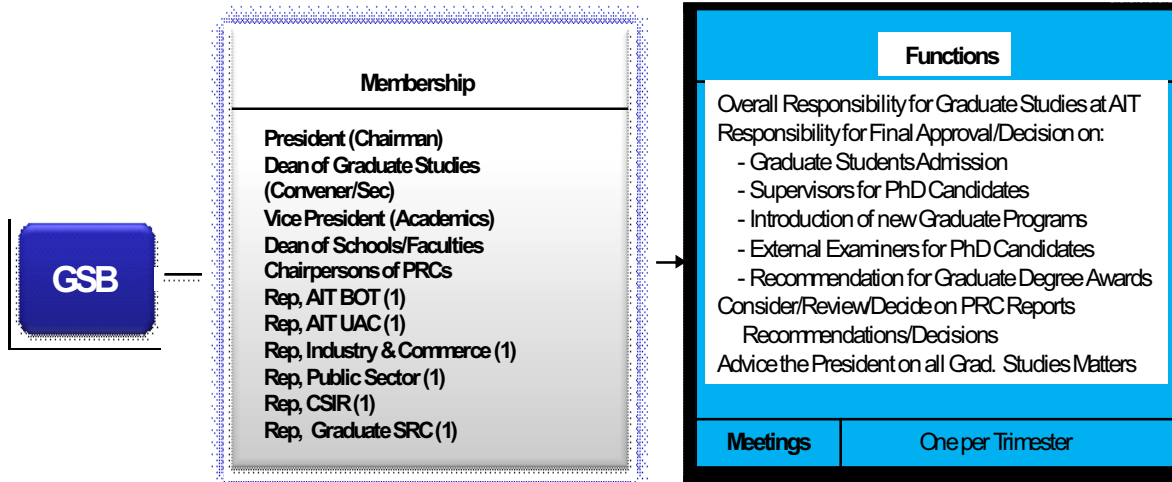
The key entities within this structure include the: **Graduate Studies Board (GSB)**, **Office of Graduate Studies** and the various research subject/field specific **PhD Research Committees (PRC)** and other **Graduate Program Support Structures (GPSS)**



## The Graduate Research Support Structure: Functions and Responsibilities

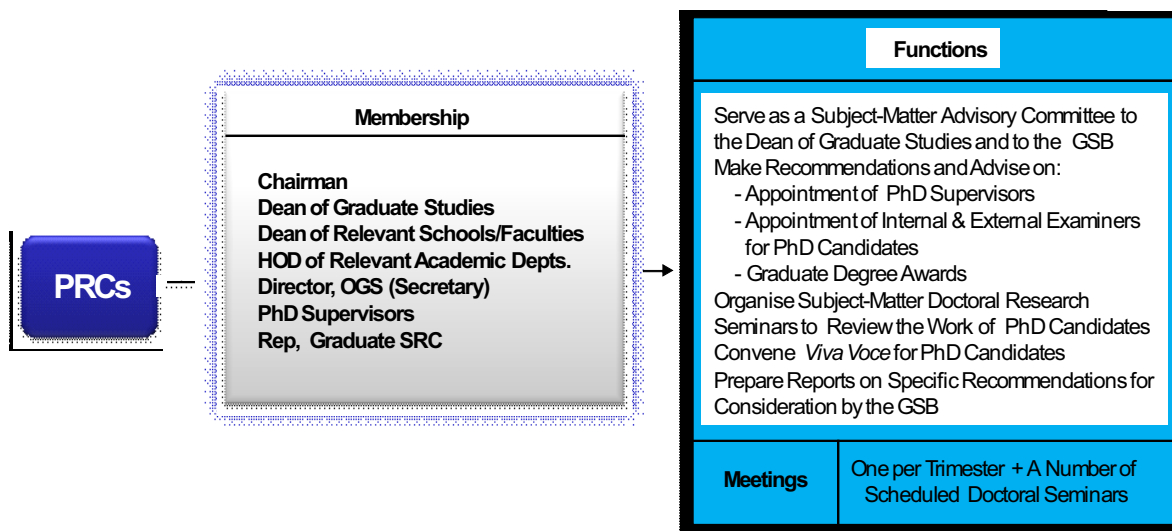
### The Graduate Studies Board (GSB)

The GSB is the highest academic body of the University with the overall responsibility for overseeing graduate studies matters. The GSB works closely with the Academic Standards Committee of the University on matters relating to enforcing academic standards in the area of graduate studies research. The membership and function of the GSB are detailed below:



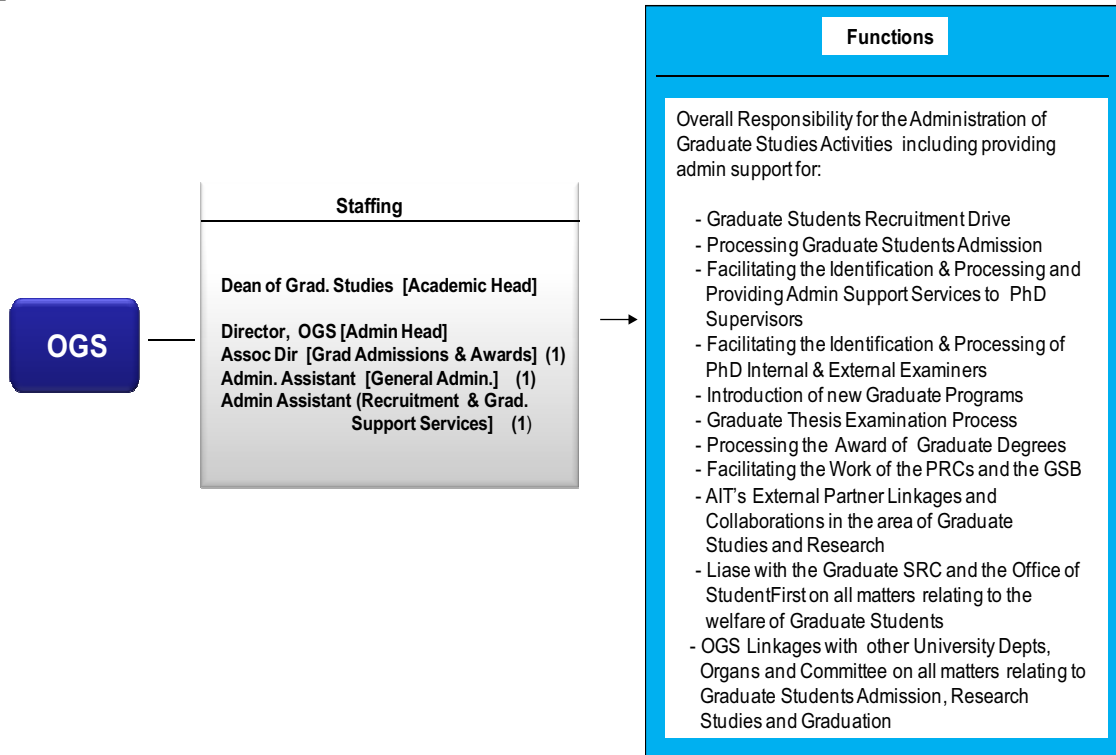
### The PhD Research Committees (PRCs)

The PRCs are PhD research support and facilitation subject-area academic committees. Currently there are four of such Committees: PRC-Engineering & Science; PRC- Computer Science & Information Technology; PRC-Education and PRC-Business and Management. The membership and function of a PRC are detailed below:



## The Office of Graduate Studies (OGS)

The OGS is in charge of running graduate administration at the University. The Dean of Graduate Studies serves as its Academic Head and he/she is assisted by a Director, who is the Administrative Head of OGS. The staffing details and the functions of the OGS are presented below:



## Other Graduate Program Support Structures (GPSS)

These entities under these structures are those mainly relating to supporting the delivery and administration of Postgraduate Certificate/Diploma and Master's degree programs (including coursework-based and research-based programs) and other special postgraduate level courses and programs



## **Academic Ethics Policies**

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### **Academic Integrity Policy**

The University is an academic community whose mission is to promote scholarship through the acquisition, preservation and transmission of knowledge. Fundamental to this goal is the institution's dedication to academic integrity. Providing an atmosphere that promotes honesty and the free exchange of ideas is the essence of academic integrity. In this setting all members of the University have an obligation to uphold high intellectual and ethical standards.

It is the responsibility of the faculty to impart not only knowledge but also respect for knowledge. It is also the professional responsibility of all faculty members of AIT to explain the importance of honesty and respect for knowledge in order to ensure an academic environment that encourages integrity.

The AIT community takes seriously its responsibilities regarding academic honesty. Academic integrity is absolutely essential to ensure the validity of the grading system and maintain high standards of academic excellence. In addition, all members of the AIT community, including faculty, must exhibit behaviors exemplifying academic honesty and encourage such behaviors in others.

To establish such an environment, students must recognize that they are responsible for their own learning. Specifically, it is the responsibility of students to protect their own work from inappropriate use by others and to protect the work of other people by providing proper citation of ideas and research findings to the appropriate source. This includes the obligation to preserve all educational resources, thereby permitting full and equal access to knowledge.

### **Violations of Academic Integrity**

A violation of academic integrity as an instance of academic dishonesty can occur in many ways. At AIT instances of academic dishonesty are:

#### **1. Plagiarism**

Plagiarism involves using the work of another person and presenting it as one's own. Acts of plagiarism include copying parts of a document without acknowledging and providing the source for each quotation or piece of borrowed material. The rules against plagiarism apply whatever the source of the work relied upon may be, whether printed, stored on a compact disc or other media, found on the Web/Internet. Students are expected to submit and present work that is their own with proper documentation and acknowledgment when the work of others is consulted and used.

Using or extracting another person's concepts, experimental results or conclusions, summarizing another person's work or, where there is collaborative preparatory work, submitting substantially the same final version of any material as another person constitutes plagiarism. It is the responsibility of the person writing to make sure that he/she acknowledges within the writing where the "sourced" information, ideas and facts come from.



The basic principles are that you should not attempt to pass off the work of another person as your own, and it should be possible for a reader to check the information and ideas that you have used by going to the original source material. Acknowledgment should be sufficiently accurate to enable the source to be located speedily.

Plagiarism can be intentional by deliberately presenting the work of others as one's own, or inadvertent by accidentally omitting or erroneously citing sources. Specific examples of plagiarism that can occur in research papers, laboratory reports, written reports, oral presentations as well as other assignments are:

- (i) *Failure to use quotation marks*: sources quoted directly must be shown with quotation marks in the body of the work or project report and with the appropriate citation in the references, notes or footnotes
- (ii) *Undocumented paraphrasing*: sources “put into one's own words” must have the source cited properly in the body of the work or project report and in references, notes or footnotes
- (iii) *Creating false documentation*: purposefully presenting wrong information in references or citations or manufacturing false information used in references, notes and footnotes.

## **2. Cheating on Examinations**

- (i) Looking and/or copying from another student's paper during an examination or in-class assignment
- (ii) Allowing another student to look or copy from one's work during an examination or in-class assignment
- (iii) Possessing crib sheets, answer sheets and other information during an examination or in-class assignment not authorized by the instructor
- (iv) Writing an answer to an in-class examination or assignment and submitting it as written in class
- (v) Taking an examination for another student
- (vi) Allowing or arranging for a second party to take an examination or other in-class assignment
- (vii) Allowing one's own work to be copied and submitted by another student
- (viii) Altering or falsifying examination or assignment results after they have been evaluated by the instructor and returned.

## **3. Other infractions**

- (i) Possessing papers, assignments, examinations, reports, laboratory or workshop reports or other assignments that have not formally been released by the instructor



- (ii) Purchasing a paper or assignment from an online source, paper mill, another student, or other source and submitting it, wholly or in part, as one's own work
- (iii) Possessing another student's work without permission
- (iv) Writing or creating a research paper, written report, laboratory report or other work for another student
- (v) Submitting the same work for two different classes without the approval by both faculty members teaching both classes
- (vi) Falsifying University documents
- (vii) Presenting false documents or forged documents
- (viii) Destroying, vandalizing, altering and/or removing library materials without authorization
- (ix) Falsifying data: Altering or falsifying another student's data, laboratory work, research, assignments or written materials.

### **Student Code of Conduct**

Students at AIT are expected to meet the highest standards of personal, ethical and moral conduct possible. Good conduct and academic honesty are fundamental to the mission of the University as an institution devoted to the pursuit of excellence in scholarship and research, and to the service of society.

Student misconduct includes student academic misconduct and also encompasses conduct which impairs the reasonable freedom of other persons to pursue their studies or research or to participate in the life of the University.

#### **1. Academic Misconduct**

*Student Academic Misconduct means:*

- breach of such rules or guidelines relating to student academic conduct as may be prescribed by the University
- misconduct relating to assessment or examinations; and
- any other conduct (the general nature of which has been made known to students) regarded as student academic misconduct according to current academic usage.

The following behaviors would be considered as academic misconduct:

*Misconduct concerning examinations:*

- taking unauthorized materials into an examination hall/room;
- impersonation in examinations;
- permitting another student to copy answers in an examination;
- exchanging notes between students in an examination;



- improperly obtaining prior knowledge of an examination paper and using that knowledge in the examination;
- removing an examination paper from an examination room when it is specified that the paper is not to be retained by the student.

## *Misconduct concerning academic works:*

- failing to acknowledge the source of material in an assignment;
- quoting without the use of quotation marks even if the source is acknowledged;
- plagiarism;
- submitting work for assessment knowing it to be the work of another person.

## *Misconduct through misrepresentation*

- submitting a falsified medical certificate;
- submitting a falsified academic transcript;
- submitting a falsified reference letter.

## **2. Social Misconduct**

Student misconduct of a kind that impairs the reasonable freedom of other persons to pursue their studies or research or to participate in the life of the University includes such activities as:

- breach of any rule relating to student conduct at the University;
- conduct which unduly disrupts or interferes with a class, laboratory session, a meeting or any other official activity within the University;
- conduct detrimental to University's property, such as stealing, destroying or deliberately damaging building, furniture or laboratory equipment;
- stealing, destroying, impairing the accessibility of, or defacing any part of the University's library collection;
- using the University's computing or communications facilities in a manner which is illegal or which will be detrimental to the rights and properties of others;
- acting so as to cause students or faculty or other persons within the University to fear for their personal safety;
- refusing or failing to identify oneself truthfully when so required by a member of the academic staff or other officers of the University.

**'If a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music which he hears, however measured or far away'**

**— *Henry David Thoreau***

## **A Guide to PhD Research at AIT**

**'Bricks and mortar are mortar and bricks until the architect can make them something else....is the same bricks that builds castles as builds huts'**

**— *Thomas Carlyle***

## **THE PHD DEGREE- GENERAL DEFINITIONS, OBJECTIVES AND EXPECTATIONS**

### **The PhD Degree --- Definition**

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The Doctor of Philosophy (PhD) degree signifies that the holder has undertaken a substantial piece of original research which has been conducted and reported on by the holder under proper academic supervision and in a research environment for a prescribed period of time. In scope, the thesis differs from a research for a Master's thesis chiefly by its deeper and more comprehensive treatment of its subject.

The length of a PhD thesis varies from discipline to discipline with 80,000 words being the norm at AIT. The thesis should not exceed 100,000 words (or equivalent) without special permission from the Dean of Graduate Studies.

The PhD thesis demonstrates authority in the candidate's field and shows evidence of command of knowledge in relevant fields. It confirms that the candidate has a thorough grasp of the appropriate methods and techniques and an awareness of their limitations.

The PhD thesis makes a distinct contribution to knowledge. This contribution is determined by originality of approach and/or coherent interpretation of the findings and, in some cases, the discovery of new facts. It demonstrates an ability to communicate research findings effectively in the professional arena and in an international context.

It is a careful, rigorous and coherent piece of work demonstrating that a research "apprenticeship" is complete and the holder is admitted to the community of scholars in the discipline.

### **The PhD Degree - Expectations**

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Doctoral degree programs at AIT seek to develop graduates who demonstrate academic leadership, increasing independence, creativity and innovation in their research and encourage the acquisition of a wide range of advanced and transferable skills. In addition, doctoral studies at AIT provide advanced training designed to enhance professional knowledge in a specialist area.

The University expects its doctoral graduates to have the following qualities and skills:

- an ability to initiate research and to formulate viable research questions;
- a demonstrated capacity to design, conduct and report sustained and original research;
- the capacity to contextualize research within an international corpus of specialist knowledge;
- a developed ability to evaluate and synthesize research based on scholarly literature;





- a deep understanding of key disciplinary and multi-disciplinary norms and perspectives relevant to the field;
- highly developed problem-solving abilities and flexibility of approach;
- the ability to analyze critically within and across a changing disciplinary environment;
- the capacity to disseminate the results of research and scholarship by oral and written communication to a variety of audiences;
- a capacity to cooperate with and respect the contributions of fellow researchers and scholars;
- a respect for truth and intellectual integrity, and for the ethics of research and scholarship;
- knowledge in the management of information, including the application of computer systems and software where appropriate to the student's field of study;
- an understanding of the relevance and value of their research to national and international communities of scholars and collaborators;
- an awareness where appropriate of issues related to intellectual property management and the commercialization of innovation; and
- an ability to write persuasive applications/proposals to relevant agencies, such as funding bodies

## **More on Expectations**

To obtain the PhD degree it is necessary for the candidate to demonstrate that he/she has mastered the skills necessary to carry out research to *professional* standards. The point of the PhD is not to demonstrate one's brilliance (although this might also occur), but to demonstrate that you have mastered a set of research skills.

Professional research standards mean that the PhD student:

- Has the ability to present a coherent argument in support of his/her position
- Is able to evaluate the worth of what others are doing. Literature surveys should demonstrate that he/she has the maturity, critical and analytical skills to compare his/her work to previous and contemporary research and to point out the limitations.
- Have the astuteness to discover where to make a contribution and the ability to evaluate and re-evaluate his/her contribution.
- Can communicate effectively to the world-wide peer group by writing clear, precise, logical conference and journal articles and making presentations at international conferences, workshops and seminars. He/she can demonstrate the importance/interest of his/her research to expert and non-expert visitors.
- Have mastered the appropriate experimental, mathematical, and computational research skills. He/she is able to conduct literature searches, review conference and journal submissions.
- Is able to formulate plans to meet short-term and long-term goals. He/she is able to meet deadlines.

## **The History of the PhD Degree**

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The use of the title ‘doctor’ seems to have originated at the University of Bologna in the early twelfth century, but the Master’s degree is the older of these two higher degrees. Nor did the ‘doctorate’ begin as the senior degree of the two. In medieval times the titles of ‘master’, ‘doctor’ and ‘professor’ were roughly equal in status. English teachers of law were doctors, those of theology masters.

It was in Germany that the doctorate came to acquire special status as a research degree, and it was from Germany that the degree ‘Doctor of Philosophy’ was taken to the United States. The University of Yale was the first American university to adopt it, in 1860, and other American universities soon followed suit.

With the PhD well established in the United States and on the Continent, existing English research qualifications such as the Cambridge Certificate for Research came to appear inadequate, and the PhD was seen, even in England, as the hallmark of respectability in research. Nevertheless, it was not until the first two or three years after the First World War that the degree as it was known in Europe and the United States was adopted in England. The University of Oxford led the way, followed shortly after by the University of Cambridge.

## **The PhD Thesis – In a Nutshell**

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The PhD thesis aims to allow the examiners to judge whether the candidate has succeeded in mastering the skills of carrying out research that meets established *professional* standards and as such warrants the award of the PhD degree .

The thesis as the final output of a professional standard supervised research work should be structured to include:

1. Identification of unsolved problem and reason for solving it. - The nature and purpose/motivation for the investigation should be clearly stated. The thesis approach/standpoint and whether the purpose was substantially achieved should also be made clear.
2. Status of research in direction of solution. - The relevant background material and limitations of existing methods. The candidate must show that he/she has an adequate knowledge of the subject and of the literature and can critically place his/her work in a wider context. The literature survey should not be encyclopedic.
3. Find a solution. ---Development of own ideas and theoretical framework backed with mathematical analysis (where appropriate).
4. Demonstration that it is a solution. -This should involve the implementation, justification for assumptions, and evaluation of evidence.
5. Demonstrate analytical skills.
6. Assess the suitability of the solution
7. Evaluate the importance of the contribution
8. Identify directions for future work
9. Appendices
10. Complete bibliography with numbered list of references.

## **The PhD Process - Some Successful Outcomes**

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1. PhD thesis of quality completed and submitted on time (3-4 years)
2. A couple of academic journal articles published during the PhD research work
3. Presentation at local and international conferences
4. Stimulating experience for student and supervisor.
5. A PhD Degree and an international recognition by peers.



**THE AIT PHD PROGRAM: DEFINING RESPONSIBILITIES AND ROLES**

**‘Give us the fortitude to endure the things which cannot be changed,  
and the courage to change the things which should be changed,  
and the wisdom to know one from the other’  
— Oliver J. Hart**

**Applicants for Admission to PhD Candidature**

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Before recommending a student for admission to pursue a PhD degree at AIT, the Dean of Graduate Studies must be satisfied that the following questions can be answered in the affirmative:

- Does the student have the necessary prerequisites for admission to candidature?
- Does the student appear to have the capacity required to undertake the PhD program successfully?
- Is the research project proposed appropriate for the degree of Doctor of Philosophy?
- Is the research area proposed by the student feasible in terms of time, facilities, equipment, and source material?
- Is the research project of direct interest to both the student and the proposed supervisor?
- Is the proposed supervisor sufficiently expert in the proposed area of research to offer the student proper supervision?
- Is the workload of the supervisor such as to allow sufficient time to give proper supervision to the student?
- If it is expected that the proposed supervisor will be absent on study leave, will alternative supervision be available?

**Responsibilities of the Graduate Studies Board (GSB)**

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It is the responsibility of the GSB to ensure that best practices are implemented and that University standards are attained university-wide and within faculties, schools, departments and centers of the university and to ensure that:

- There are clear admission requirements and procedures for the particular graduate degree.
- Graduate admission requirements of the University are adhered to.
- There are clear guidelines for supervisors, internal and external examiners outlining in particular the University's expectation for the graduate degree.
- There are clear guidelines for the submission of thesis and the examining thereof.
- The University's examination standards and requirements for the particular graduate degree are adhered to.
- The University's administrative procedures assist students to complete their graduate degree as expeditiously as possible.



## **Responsibilities of Academic Departments/Schools**

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1. The Head of Department (HoD) or the Dean of School (DoS) is responsible for matters concerning PhD students within the Department/School and for any related communications with the Dean of Graduate Students (DGS), Office of Graduate Studies (OGS) the relevant PhD Research Committee (PRC)
2. The HoD/DoS should not only advise the prospective student on the range of research expertise of academic staff, but should clearly articulate the Department/School's expectations, practices, and standards with respect to supervised research. While it should be recognized that unforeseen eventualities beyond the student's or the Department/School's control sometimes intervene to delay completion, the Department/School should nevertheless emphasize the student's commitment to hard work and strict adherence to the time-frame in which the degree should be completed.
3. The HoD/DoS should ensure that an induction session for new and prospective students is provided, including a guide to the nature of doctoral research in the particular field, to facilities available for postgraduates within the Department/School, and to the Department/School's programme of graduate seminars. There should be discussion of the principal stages towards completion of theses in the field, and typical examples of time-frames. It is advisable that material on these subjects also be made available in written form. Emphasis should be given to the qualities and skills the University expects its doctoral graduates to develop as they proceed through their PhD program.
4. When considering applicants for admission to the PhD program, the HoD/DoS should ensure that the research area is of interest to the supervisor(s), is within the range of the supervisor(s)' methodological and theoretical expertise, and can be adequately supervised when the supervisor(s)' other academic commitments are taken into account.
5. The HoD/DoS should ensure that appropriate faculty member(s) are available to supervise the student until the end of candidature. If a supervisor takes study leave or is absent for more than three months, arrangements for alternative supervision must be resolved to the satisfaction of the student, the faculty the DGS, the OGS and the relevant PRC. Joint supervision may be an effective way of meeting these contingencies.
6. A faculty member would ordinarily be expected to undertake no more than seven full-time equivalent supervisions (PhD and Master's degree research projects). Academic staff with heavy administrative burdens should consider carefully the number of supervisions undertaken.
7. Through consultation with supervisors, the HoD/DoS should monitor the progress of the PhD students and ensure that they report regularly throughout their studies. After one academic probationary year of admission, the student should submit an application for PhD candidature and a progress report on his/her research work to-date. This report will be in addition to other stipulated research outputs (e.g. Research Proposal and the Literature Review Chapters) The Department/School thereafter should ensure that each candidate undertakes a substantial piece of research work and report on it in the form of (drafts of thesis chapters and/or work-in-progress seminar) every trimester.



8. In the case of students converting from Master's to PhD, the HoD/DoS are expected to provide the DGS and the OGS with evidence of satisfactory progress in the Master's research and a justification of the conversion including the PhD research outline.
9. The HoD/DoS should formulate and make available to prospective and new students general guidelines regarding authorship of publications within the discipline.
10. The Department/School should provide an appropriate physical and intellectual environment for all graduate students. Students should be encouraged to participate in research seminars and be given every opportunity to become an integral part of the research milieu of the Department/School activities may also be advisable
11. In the event of the supervisor/student relationship breaking down, it is the responsibility of the HoD/DoS to resolve the problem, if necessary, in consultation with the Dean of Graduate Studies, and to seek alternative arrangements.

### **Principles for PhD Supervision – Responsibilities of the Supervisor**

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Quality supervision is crucial at all stages of a graduate student's work, but it is particularly important during the initial phase of graduate studies. It is essential that supervisors and students have a shared set of expectations about all aspects of supervision.

Each needs to understand the constraints that operate on the other and the effects that these may have on supervision. Good supervisors make their expectations clear to students on issues such as: the need for regular meetings, mastery of methodological skills, conference presentations and academic/scientific journal publications, timelines for degree completion, among others.

Once these expectations are clearly outlined and mutually understood, it is much easier to develop a positive productive relationship. The following are suggested topics to cover in initial discussions between student and supervisor:

- Frequency of contact.
- Preferred communication method (e.g. e-mail, voice mail, tele/video conference, in-person).
- Timelines for each stage of the work.
- Frequency of submission of work (in writing in the form of reports or through presentation).
- Type of feedback expected.
- Nature of any directed reading program.
- Monitoring, evaluation, and reporting of progress.
- Additional training, courses, fieldwork requirements.
- Whether publication is expected and When?
- Whether papers will be presented at conferences.

Outlined below are a number of broad principles intended to guide the general conduct of supervision of the research work of PhD students at AIT with the aim of overcoming problems which are known to impede progress of students in their research work.

1. Except in rare circumstances, faculty member new to postgraduate supervision may not be principal supervisors.
2. All supervisors of higher degree research students are required to undertake an approved supervisor training course or refresher course at least every five years.
3. Supervisors are expected to provide continuing guidance to their PhD students on the research being undertaken and on meeting time-lines.
4. Supervision of research students is not only a complex teaching task, it should be regarded as a shared enterprise in which both supervisor and student have an intellectual investment. Proposed research projects should therefore be of mutual interest. Prospective supervisors should have a sufficient range of theoretical and methodical expertise to offer the student proper supervision. There should be adequate time to supervise when other academic commitments are taken into account.



5. The supervisor needs to be well acquainted with the PhD student's academic background so that if the proposed research project needs additional skills and knowledge, the student can be informed how these might be acquired. Supervisors should support candidates in further skill development as they proceed through their studies.
6. The supervisor should alert the commencing PhD student about commonly encountered tasks, processes, and standards expected of doctoral programs in the particular field. This is a useful framework for helping the student to develop and refine a topic which can be researched and written up within the required time-frame.
7. Once the topic is refined to the satisfaction of the student and the supervisor, the supervisor should assist the student to formulate a framework for the research and time estimates for the completion of various phases. Having such a framework, which may be modified as the research proceeds, gives a sense of focus, helps student and supervisor to check progress, and is often a useful early orientation to writing the thesis. The framework should be used to guide the student, but should not constrict the development of the research.
8. From the outset of the PhD program, supervisors and students should ensure that they confer at what are agreed by them to be appropriate at regular intervals. Such agreements may be re-negotiated from time to time as the program proceeds. Meetings may be informal and frequent and/or more formal and less frequent. In this context, it is helpful for the supervisor to make explicit the purpose of the meeting. It is a useful practice to keep a diary of meetings with dates and details of discussions. In addition to informal meetings, it is important that major reviews take place at least every trimester in order that the student's progress can be assessed within the overall scheme of the study and the time-frame for completion. Both supervisor and student should then be in a position to be able to report to the relevant PhD Research Committee (PRC), the Dean of Graduate Studies, and to the Office of Graduate Studies (OGS) when required on progress and to judge when some intervention may be desirable.
9. Early in the student's research work, the supervisor must make an assessment of his/her written work. If the supervisor considers that further work is required in areas such as composition and grammar for the student to be successful in completing the PhD, the supervisor should then provide advice and assistance as to how an appropriate standard can be achieved. The supervisor should continue to monitor the student's progress in order to resolve any deficiencies.
10. The supervisor is expected to read any written work thoroughly, in advance of meetings, and to provide regular feedback on the student's work, although a supervisor should not be obliged to read an excessive number of drafts of the same section or chapter. It is vital that criticism is given in a constructive, supportive, and sensitive fashion. The supervisor needs to recognize that doing a research degree requires an emotional as well as an intellectual commitment; students will be discouraged by continual harsh criticism. Supervision sessions should be structured so that they provide a conducive environment to facilitate free exchange of ideas.
11. The supervisor has responsibility to ensure that PhD candidates under their supervision take part in the academic life of the Department/School. Candidates should be required to present work-in-progress papers to their peers and academic staff. Candidates should be



strongly encouraged to participate in Departmental/School and/or inter-departmental or University-wide seminars, conferences, informal functions and the like. Reports from conferences, etc., should be conveyed to the Department/School and research students. Graduate students should be encouraged to publish their work, jointly with supervisors when appropriate. A supportive environment and a sense of collegiality are important influences, particularly for women, in timely completion of research projects.

12. At the beginning of the candidature the supervisor has the responsibility for initiating discussions with a view to making mutually satisfactory arrangements regarding intellectual property, including patents and authorship of any publications arising from the candidate's work. The HoD/DoS should be notified that these discussions have taken place. Arrangements that are made should reflect codes of practice with respect to authorship in the discipline and accord with the *University Code of Conduct for Research*. Arrangements should also reflect the responsibility of the supervisor in fostering the student's career.

13. Any restrictions on publication rights due to confidentiality or other intellectual property protection requirements need to be clearly outlined at the outset, and reviewed during the research project as appropriate. This particularly involves restrictions arising from the registration of patents. Advice should be sought from the Dean of Graduate Studies.

14. Supervisors should ensure that they and the PhD research students under their supervision are familiar with the University's Code of Conduct for Research.

15. It is important not to lose sight of the personal dimension of the supervisory relationship. A candidate's progress may be impeded by personal crises to which the supervisor should be responsive. The supervisor should know where help might be sought within the University and what to do if there is a need to suspend candidature or negotiate an extension. The assistance of the Office of StudentFirst may be sought.

16. There are some instances when the supervisory relationship breaks down. In such cases, the supervisor should if necessary see to it (through the HoD/DoS, or the DGS), that other arrangements are made to the satisfaction of the student.

17. In view of the fact that women graduate students sometimes encounter particular problems in relation to the research environment and the supervisory relationship, supervisors should actively support the University's policies and strategies on affirmative action and avoidance of sexual harassment.





## Responsibilities of the PhD Students/Candidates

**'You never will be the person you can  
be if pressure, tension, and discipline are  
taken out of your life'  
— James G. Bilkey**

PhD research work may be considered as a four-way interaction between the Office of Graduate Studies the academic Department/School, Supervisor(s) and the PhD student. While the entities of the University including the supervisors are expected to provide many forms of support and guidance, *the ultimate responsibility for managing the PhD research project and obtaining the degree rests with the PhD candidate.*

1. All PhD students/candidates should observe the University's rules, regulations, and requirements (both specifically relating to the degree and other requirements), and consult the Graduate Research Handbook for guidance especially when making applications for variations of candidature.
2. Through the orientation session held by the Office of Graduate Studies commencing PhD students should become quickly familiar with:
  - the nature and limitations of PhD research in their field;
  - the facilities available for postgraduates in their Department/School and the University;
  - the dimensions of the PhD research project, the time-frame for completion, and the normal stages encountered along the way;
  - the qualities and skills the University expects its doctoral graduates to have or develop, and with the assistance of their supervisor, prepare a plan for further skill acquisition as they proceed through their PhD studies.
3. From the outset of their PhD studies, students should ensure that they confer with their supervisor(s) to mutually agree on appropriate times to meet and discuss progress reports and outputs of their research work. PhD students/candidates should keep supervisors informed of their research activities, progress, and problems.
4. After one academic probationary year of admission, the PhD student should submit an application for PhD candidature and a report on the research work so that confirmation may be finalized by the end of the probationary period. Individual Department/School/Faculty may have additional requirements.
5. If a Department/School/Faculty recommends against granting PhD candidature or recommends that the student's admission should be terminated on the grounds of unsatisfactory progress, the PhD student may make a submission to the relevant PhD Research Committee (PRC), and may subsequently appeal to the Graduate Studies Board (GSB) against any decision of the PRC.
6. After proceeding to the PhD candidature (in the second year of their studies) PhD candidates should present to the relevant PRC via their supervisor at least one significant

piece of written work (in the form of a report, draft chapter or work-in-progress seminars) every trimester. The PhD candidate and his/her supervisor should also undertake a major review of work completed at least every trimester so it can be assessed within the overall scheme of the study and the time-frame for completion.

7. If a candidate is unable to resolve serious problems with the supervisor(s), he or she should first ask the Head of Department or the Dean of his/her School/Faculty to help. If the problem is not resolved the Dean of Graduate Studies should then be approached. It is important that these steps be taken without delay so that progress is not unduly impeded. In cases where the supervisor and the HoD are one and the same person, the Dean of Graduate Studies should be approached directly.

8. A PhD program at AIT is a demanding undertaking requiring performance to the full extent of the candidate's ability. It is therefore expected to be a full-time commitment on the part of the PhD candidate.

9. All PhD candidates will be required to undertake a faculty-based professional development program involving doing a minimum of 3-credit hours/week and a maximum of 9-credit hours/week of faculty work at AIT. This will involve any of the following at the undergraduate level or at the Master's degree level: teaching (campus-based or online) courses; serving as tutors (on campus-based or online courses); assisting students in laboratory-based work; providing academic supervision of students' projects or research work. PhD students/candidates will be remunerated at the current rate for Teaching/Graduate Assistants.

10. PhD candidates have a responsibility (shared with the University) to ensure that they re-enroll each year. It is important to notify the Office of Graduate Studies of any change of address so that enrolment papers are received.

11. PhD candidates should apply to the OGS in good time before any planned leave of absence, period of study away, change of status, change of title, change of supervisor. Candidates should notify the OGS when they return from leave of absence or leave to study away from the University.

12. In preparing the thesis, PhD candidates should bear in mind the followings:

- they are expected to be familiar with the literature in the particular field and assess it critically;
- they should formulate a clear hypothesis (where appropriate) or overall research problem/question, and should support their conclusions with adequate data or evidence and analysis;
- the evidence presented should be relevant to the main hypothesis being investigated;
- candidates should pay particular attention to the final presentation of the thesis. Not only should the final version be carefully checked for errors, but it should be clearly structured and easy to follow, and should form an integrated whole (examiners can ask for theses to be revised if presentation is below the required standard). A high standard of written English should be attained.

In writing up their research output, candidates must avoid the following:

- the fabrication of data - claiming results where none have been obtained; the falsification of data - altering results to confirm the hypothesis;
- plagiarism, including the direct copying of textual material, the use of data or ideas from other people without adequate attribution;
- attribution to others who have not in fact contributed to the research.

Candidates should observe the University's Code of Conduct for Research (see below).

13. At the outset of their candidature, candidates should familiarize themselves with the University's practice regarding intellectual property, including patents and authorship of any publications arising from their work. They should be informed by the supervisor (in consultation with the Dean of Graduate Studies) in writing of any limitations on publications or communication of their work consequent upon commercial agreements at the outset of the candidature or as soon as such commercial agreements have been reached. In such cases a written agreement should be concluded over the signatures of the candidate, principal supervisor(s) and Head of the Unit(s) and Department(s) and the Dean of School concerned.

### **Responsibilities of the Internal and External Examiners**

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It is the responsibility of the Internal and External Examiners to ensure that:

- The thesis is assessed by standards appropriate for the PhD degree.
- The student in his/her *viva voce* is assessed by standards appropriate for the PhD degree.
- A report on the thesis and *viva voce* is forwarded to the Office of Graduate Studies within 5 days of the *viva voce*



## THE AIT CODE OF RESEARCH CONDUCT

**‘Consider the postage stamp: its usefulness consists in  
the ability to stick to one thing till it gets there’  
—Josh Billings**

### **Principles**

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#### **Statement of Guiding Principles**

This Code of Conduct ('the code') prescribes standards of responsible and ethical conduct expected of all persons (academic staff, students, technical and other support staff) engaged in research ('researchers') at AIT based on the following guiding principles:

- a. Research is original investigation undertaken in order to gain knowledge and understanding and make this widely available
- b. Researchers should, in all aspects of their research work:
  - demonstrate integrity and professionalism;
  - observe fairness and equity;
  - demonstrate intellectual honesty;
  - effectively and transparently manage conflicts of interest or potential conflicts of interest; and
  - ensure the safety and well being of those associated with the research.
- c. Research methods and results should be open to scrutiny and debate.

#### **Observance of the Code**

Researchers must familiarize themselves with the code and ensure that its provisions are observed.

#### **Breach of the Code**

Failure to comply with the provisions of the code may be grounds for disciplinary action.

#### **Advice**

Where a researcher or any other member of the University is in doubt about the applicability of provisions of the code, or about the appropriate course of action to be adopted in relation to it, advice should be sought from a HoD/DoS. Such advice should be provided on a confidential basis.

## **Specific Requirements**

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### **Research Data and Records**

- Researchers must comply with the University's 'Policy on the Management of Research Data and Records' and related policies that may be promulgated from time to time. This policy includes, but not limited to, the following requirements –
  - data and records should be accurate, complete and in sufficient detail to enable verification of research results and to reflect what was communicated, decided or done;
  - data (including electronic data) must be recorded in a durable and retrievable form, be appropriately indexed and comply with relevant protocols;
  - data must be retained intact for a period of at least five years from the date of any publication on which it is based or longer than this if: (i) discussion of results continues, (ii) there are regulatory or sponsor requirements, or (iii) the data has historical or archival value;
  - a research unit or Department/School must establish procedures for retention of data and maintain a register of the data and records and their location; data and records will normally be kept in the department/school or unit where the research was conducted;
  - data forming the basis of publications must be available for discussion with other researchers; where confidentiality provisions apply, the data should be kept in a way that allows reference by third parties without breaching confidentiality; and
  - when data are obtained from limited access databases, or via a contractual arrangement, written indication of the location of the original data, or key information regarding the database from which it was obtained, must be retained by the researcher or research unit.

### **Authorship**

- (a) For a person to be recorded as an author of a publication requires that he/she should have been directly involved in the creation of the publication by –
- conceiving it, analyzing, and interpreting the data on which it is based;
  - writing or revising the intellectual content; and
  - giving final approval of the version to be published.
- (b) The right to authorship is not tied to position or profession; ghost, gift, or honorary authorship is unacceptable. Authorship should honestly reflect the level of contribution to the work being published. Participation solely in the acquisition of funding or the collection of data is not sufficient for a person to be attributed as an author of a publication.
- (c) Any part of an article critical to its main conclusion must be the responsibility of at least one author.



- (d) An author's role in a research output must be sufficient for that person to take public responsibility for at least that part of the output in that person's area of expertise.
- (e) No person who is an author, consistent with this definition, may be excluded as an author without their permission in writing.
- (f) When there is more than one co-author of a research output, one co-author (by agreement amongst the authors) should be nominated as executive author for the purposes of administration and correspondence and when there is more than one co-author of a research output, the authors should discuss and reach agreement on the order in which authors shall be listed.
- (g) Other persons who contributed to the work who are not authors should be named in Acknowledgements (where the publisher provides for this, and in a manner consistent with the norms of the research field or discipline). An author must ensure that the work of research students, research assistants and technical officers is recognized in a publication derived from research to which they have made a contribution.
- (h) Researchers must comply with authorship criteria appropriate to their discipline, and/or according to the requirements of the journal in which their work is to be published.

## **Publications**

- (a) Publication of more than one paper based on the same set(s) or subset(s) of data is not acceptable, except where each subsequent paper fully cross-references and acknowledges the earlier paper or papers as the case may be (for example, in a series of closely related work, or where a complete work grew out of a preliminary publication and this is fully acknowledged).
- (b) An author who submits substantially similar work to more than one publisher must disclose this to the publishers at the time of submission.
- (c) Publications must include information on the sources of financial support for the research and must include a disclosure of any potential conflicts of interest.
- (d) Confidentiality provisions to protect intellectual property rights may be agreed between the University, the researcher and a sponsor of the research. Where such agreements limit free publication and discussion, limitations and restrictions must be explicitly agreed.

## **Supervision of Students Undertaking Research**

- (a) Supervision of PhD students should be carried out in accordance with the guidelines set out in the relevant sections of the Graduate Research Handbook
- (b) Supervision of all other students undertaking research should be carried out in accordance with the requirements set down by the relevant faculty, school or department.

## Conflict of Interest

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(a) A researcher has a conflict of interest in any circumstances where that person has a real, perceived or potential opportunity to prefer their own interests, or those of any other person or organization, to the interests of the University. Examples of conflicts of interest in research include but are not limited to situations –

- where the research is sponsored by a related body;
- where the researcher or a related body may benefit, directly or indirectly, from any inappropriate dissemination of research results (including any delay in or restriction upon publication of such results);
- where the researcher or a related body may benefit, directly or indirectly, from the use of University resources;
- where the researcher conducts a clinical trial which is sponsored by any person or organization with a significant interest in the results of the trial.
- where private benefits or significant personal or professional advantage are dependent on research outcomes.

A **related body** is any person or body with which the researcher has an affiliation or a financial involvement.

A **financial involvement** includes a direct or indirect financial interest, provision of benefits (such as travel and accommodation) and provision of materials or facilities.

An **indirect financial interest** is a financial interest or benefit derived by the researcher's relatives, personal or business associates, or research students. It is important to recognize that real or perceived opportunities to give preference to personal interests arise from competing obligations and can be other than financial.

(b) The responsibility for managing a conflict of interest rests, in the first instance, with the individual researcher.

A researcher must make a full disclosure of a conflict of interest or of circumstances that might give rise to a perceived or potential conflict of interest as soon as reasonably practicable as follows –

- where the researcher is a HoD, to the Dean of the relevant School;
- where the researcher is a DoS, to the Vice-President (Academics); in all other cases, to the researcher's HoD/DoS

For the conduct of clinical trials, full disclosure must include the nature of the sponsorship and the relationships between the sponsor, trial subjects and the clinical investigator.

(c) Disclosures shall be handled as follows -

- the officer in receipt of the disclosure referred to in paragraph (b) above must discuss the matter with the staff member concerned to determine a procedure for the management or elimination of the conflict of interest. The procedure must be

documented and the researcher advised in writing and a copy of the agreement held in the department's records.

- a researcher must comply with the direction of the officer in relation to the management of the conflict of interest.
- unless involved directly, it is the responsibility of HoD/DoS to ensure that conflicts of interest in research involving their staff members are managed appropriately.
- when a HoD has a conflict of interest in research, the DoS will be responsible for recommending to the Vice President (Academics) appropriate management arrangements.
- when a DoS has a conflict of interest in research, the Vice President (Academics) will be responsible for recommending to the President appropriate management arrangements.

(d) a HoD/DoS must not be a Director of any organization sponsoring research in that department/school or have a direct or indirect financial interest in excess of 5% equity in such an organization unless full disclosure has been made and the President has approved an exception to this policy.

(e) the Vice President (Academics) when deciding whether to accept sponsored research or contract research funding on behalf of the University, may seek information regarding disclosure and management of any conflict of interest that may result.

## **Additional Requirements**

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(1) Any special standards of work performance and ethical conduct imposed by law or by the University in relation to particular categories of research are deemed to be included in this code in its application to persons engaged in that kind of research in the University.

(2) Researchers should endeavour to safeguard the interests of all parties in relation to intellectual property in accordance with the Intellectual Property Statute of the University and other guidelines as may be promulgated from time to time.

(3) Every researcher should be provided with access to material on applicable institutional guidelines for the conduct of research, including those covering ethical requirements for studies on humans or animals, requirements for confidentiality, and occupational health and safety matters.

(4) Researchers must make a declaration as part of their annual reporting requirements that they have complied with the provisions of the code.

## **Research Misconduct**

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Research misconduct is constituted by a failure to comply with the principles or specific provisions of the code and includes but is not limited to conduct in, or in connection with, research that is (a) dishonest, reckless or negligent and (b) seriously deviates from accepted standards within the scientific and scholarly community for proposing, conducting or reporting research, such as following, includes -



- the fabrication or falsification of data or results,
- the use of another person's ideas, work or data without appropriate acknowledgement,
- misleading ascription of authorship to a publication including the listing of authors without their permission, attributing work to people who have not in fact contributed to the publication, the lack of appropriate acknowledgement of work primarily produced by a research student/trainee or associate, and
- failure to disclose conflicts of interest or cases where a conflict of interest might reasonably be perceived to exist.

**Great discoveries and improvements invariably involve the cooperation of many minds. I may be given credit for having blazed the trail but when I look at the subsequent developments I feel the credit is due to others rather than to myself'**

**— *Alexander Graham Bell***

**ACADEMIC PROGRESSION TO THE PHD DEGREE**

**‘The gem cannot be polished without friction,  
nor man perfected without trials’  
—Chinese Proverb**

The following are the proposed stages in the progression towards the PhD degree. The student is required to complete these steps to the satisfaction of the appropriate body of the University.

**The First Year of PhD at AIT**

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**Stage 1. Admission**

Suitably qualified students apply for admission to pursue their PhD at AIT following the clearly laid down University procedures and admission requirement.

**Stage 2. Year One Evaluation – ‘The First Year in the PhD’ Evaluation**

This is not intended to be an in-depth investigation but rather a brief assessment. It is an important aspect of overall research quality control within the University. The Supervisor(s) and the relevant PRC working in consultation with the HoD/DoS should carry out the evaluation and report to the Dean of Graduate Studies.

The evaluation should be carryout as soon as possible but not later than twelve months of studies. The purpose of the evaluation is to determine if the student is making satisfactory progress and has completed his/her PhD Research Proposal and the stipulated relevant chapters of the thesis. The student by the time of this evaluation is expected to produce a detailed research proposal and is expected to successfully defend the proposal.

The first twelve months of doctoral research are probationary. To proceed to PhD candidature in the 2<sup>nd</sup> Year, the PhD student must achieve the goals set for the probationary (first) year of his/her PhD and have a full research (thesis) proposal approved. The following goals are compulsory for all PhD students.

- Completion of a full Research Proposal.
- Completion of a substantial piece of written work, e.g. the literature review chapters.
- Presentation of the Research Proposal and work-in-progress report to an appropriate forum, e.g. a seminar, to the satisfaction of appropriate research support/supervision bodies of the University.
- Approval of the Research Proposal by the appropriate research support/supervision bodies of the University.
- Other goals might include developing the research methodology and working out a provisional thesis structure.



The form of the ‘first year in the PhD’ evaluation may include an interview and/or a seminar presentation. At a minimum, the evaluation should include separate reports on progress by both the student and supervisor(s).

In the event of unsatisfactory progress, the supervisor(s) in consultation with the relevant PRC and the Dean of Graduate Studies should recommend means of improving progress.

PhD registered students who successfully passed the first year review and evaluation will move on to the PhD candidature status and proceed to the 2<sup>nd</sup> Year of the Program. The diagram below illustrates the 12 steps of the 1<sup>st</sup> Year of PhD at AIT.



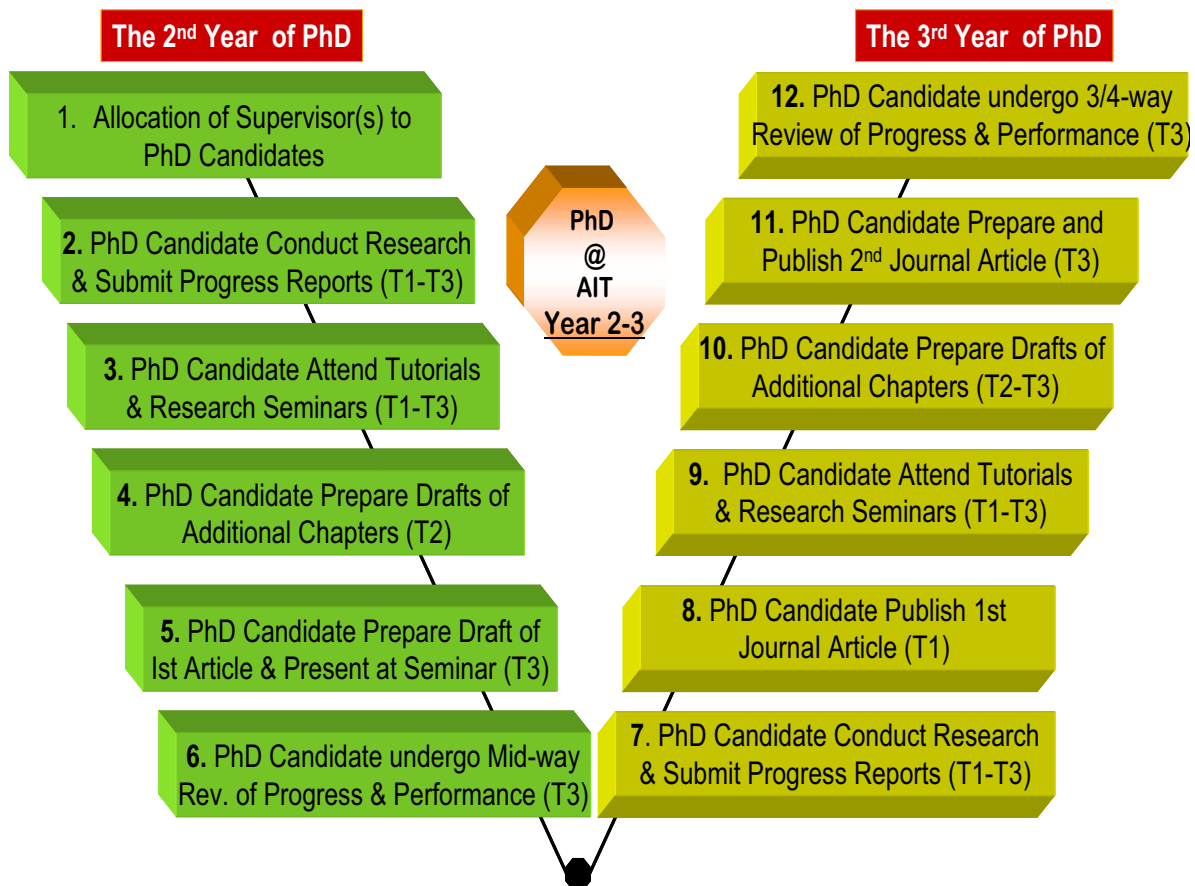
## The Subsequent Years of PhD at AIT

**‘I hate to see things done by halves. If it be right,  
do it boldly,—if it be wrong leave it undone’  
— Bernard Gilpin**

### Stage 3. The Mid-Way Evaluation

This evaluation is held mid-way into the PhD Program (typically about 18 to 24 months into the PhD). The Supervisor(s) and the relevant PRC working in consultation with the HoD/DoS should carry out this mid-way evaluation and report to the Dean of Graduate Studies. It consists of a formal presentation by the PhD candidate.

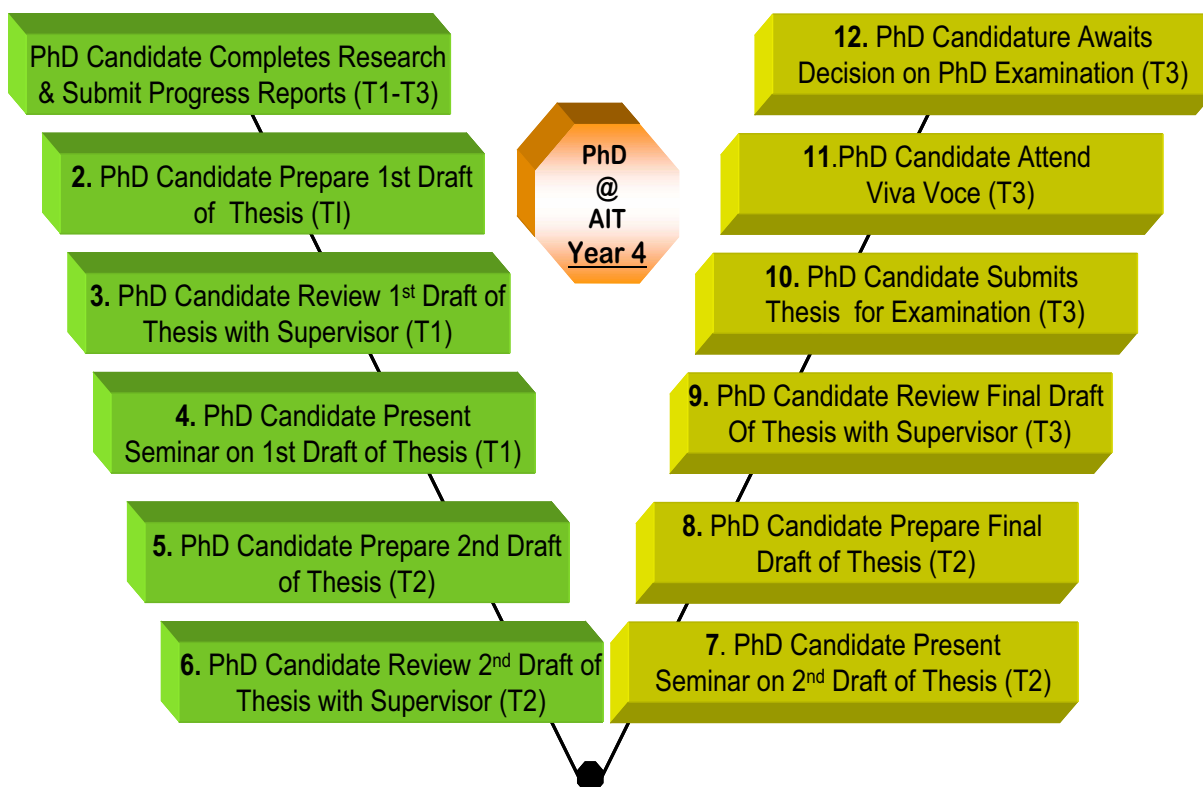
The purpose of this evaluation is: to examine the PhD candidate’s progress; to ensure that the candidate has sufficient knowledge of the fundamentals of the chosen discipline; to ensure that the candidate has developed and implemented a clear plan of research and has completed or at least drafted additional chapters in addition to those written in the first year; and to assess the likelihood of successful completion within an acceptable timeframe.



## Stage 4. Thesis Submission and Viva Voce Examination

‘Men do less than they ought, unless they do all that they can’  
— *Thomas Carlyle*

PhD candidates are to consult the relevant University Guidelines on the preparation of thesis for submission and for the *viva voce* examinations. The Office of Graduate Studies informs the External Examiner of requirements expected of the PhD. and the deadlines for receipt of External Examiner’s report.

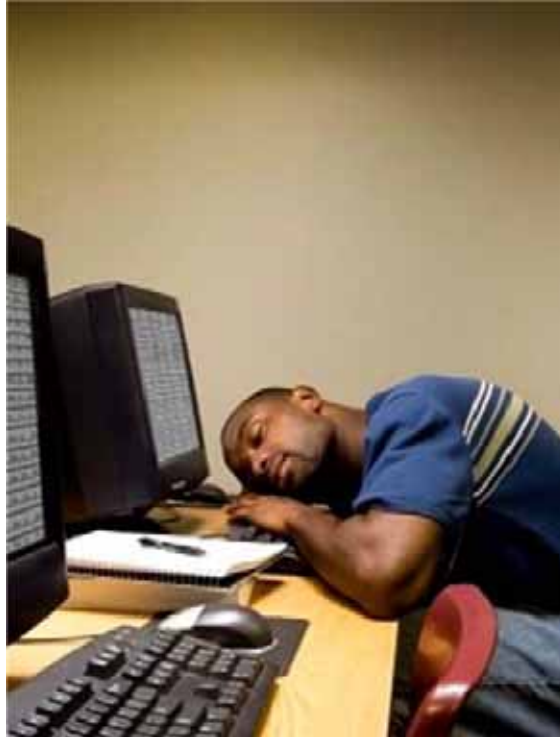


## Stage 5. Decision on the Award of the PhD degree

The decision on the award of the PhD degree is made by the relevant University bodies on the advice of the Dean of Graduate Studies based on the report of the Examiners. Those involved at each stage:

	PhD Candidate	Supervisor	HoD/DoS	DGS	OGS	PRC	GSB	Examiners
Stage 1	*		*	*	*		*	
Stage 2	*	*	*	*	*	*		
Stage 3	*	*	*	*	*	*		
Stage 4	*	*	*	*	*	*	*	*
Stage 5				*	*		*	*





**'Every human mind is a great slumbering power until awakened  
by a keen desire and by definite resolution to do'  
— Edgar F. Roberts**



## THE PHD EXAMINATION PROCESS

**‘Undertake something that is difficult; it will do you good.  
Unless you try to do something beyond what you have already  
mastered, you will never grow’  
— Ronald E. Osborn**

### The Stages of the Process

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The PhD examination process includes the following main stages:

**Step 1:** The PhD candidate advises the Office of Graduate Studies after seeking the approval of his/her supervisor(s) of his/her intention to submit.

**Step 2:** Three examiners are nominated by the HoD/DoS and formally approved by the Dean of Graduate Studies in consultation with the Supervisor(s) and the HoD/DoS

**Step 3:** A copy of the thesis is sent to each of the examiners by the Office of Graduate Studies on the advice of the DGS in consultation with the HoD/DoS

**Step 4:** The Examiners:

- read the thesis
- write their reports (independently)
- submit their reports

**Step 5:** Once all three examiners’ reports are in, the Dean of Graduate Studies considers the reports

**Step 6:** The Dean of Graduate Studies arranges and chairs *viva voce* examination

**Step 7:** The Dean of Graduate Studies facilitates a consensus decision amongst the examiners

**Step 8:** The Dean of Graduate Studies advises the Office of Graduate Studies of the initial outcome

**Step 9:** The Office of Graduate Studies advises the candidate of the initial outcome

**Step 10:** If applicable, the candidate makes the required amendments/revisions

**Step 11:** In the case of amendments, the Dean of Graduate Studies and Internal Examiner(s) (where applicable) check the amended thesis. In the case of a “revise and resubmit” decision, the examination process begins again (the same examination panel is normally used)



**Step 12:** The Dean of Graduate Studies advises the Office of Graduate Studies of the final outcome

**Step 13:** The Office of Graduate Studies advises the candidate of that final outcome

**Step 14:** The candidate submits the final three hard-bound copies and an electronic version of the thesis

**Step 15:** The candidate graduates with a PhD degree!

## **The PhD Examination Process - Details**

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**‘They are able because they think they are able’  
—Vergil**

The degree of Doctor of Philosophy (PhD) at the AIT is acquired doing (mainly in the first year of registration) a number of credit-based mandatory courses and the submission of a thesis prepared under supervision.

A successful PhD thesis will demonstrate the candidate's ability to conduct original research and to present the findings of that research to a professional standard. The thesis should give evidence that the candidate has made a significant contribution to knowledge in the particular field.

On the award of the degree, the graduate should be a person capable of conceiving, designing and carrying out high-quality research in the area of their expertise without supervision. As the highest degree awarded for research supervised by members of the academic staff, the PhD requires a high degree of scholarly acumen, independence and perseverance.

Described below are the policies and procedures for the examination of PhD theses as required by the regulations for the PhD degree.

### **Advice of Intention to Submit**

PhD candidates are requested to advise their supervisor(s) of their intention to submit their thesis at least two months prior to submission. This will prompt the supervisor(s) to initiate the process for the nomination of examiners for the thesis.

### **Nomination of Examiners**

PhD theses are normally examined by three examiners:

- one from outside Ghana (“Overseas External”);
- one from within Ghana but external to the University (“Ghana External”); and
- one internal to the University (“Internal”).

Normal patterns for examiners may be varied in exceptional circumstances. For instance, where no suitably qualified examiner is available to fulfill the role of “Ghana External”, a

further “Overseas External” will be appointed. Where no suitably qualified examiner can be found to fulfill the role of “Internal”, a further “Ghana External” (or, in exceptional circumstances, an “Overseas External”) will be appointed. A supervisor or an ex-supervisor will not be appointed as an examiner.

Examiners should be suitably qualified to undertake the task. Suitably qualified examiners:

- preferably have a PhD (or if not, some other higher degree but with appropriate research experience at a high level. It is unusual, however, for someone without a PhD to be nominated to examine a PhD thesis);
- should be knowledgeable in the area/field/discipline of the topic of the thesis to be examined (i.e. the examiner should have the necessary background to be able to make an informed judgement about the thesis); and should be active in research work.

When nominating examiners, consideration should also be given to the examining experience of the examiners. It is recommended that a mix of both experienced and inexperienced examiners should be nominated where a panel of three experienced examiners is not feasible.

The Dean of Graduate Studies (‘the Convener’) - convenes the examination. The Convener is not an examiner of the thesis but is a person who coordinates the examiners’ reports and submits a report on the recommendation of the examiners. If a *viva voce* examination is held, the Convener prepares for, and chairs it.

It is essential that the process of selecting potential examiners is started before the thesis is submitted so that the examination process is not unnecessarily protracted. The nominations for examiners are made by the HoD/DoS after consultation with the supervisor(s) and the Dean of Graduate Studies. The Nomination of Examiners form is submitted to the Dean of Graduate Studies for approval. The Office of Graduate Studies under the delegated authority of the University, appoints examiners on the advice of the DGS.

The identities of the examiners are not divulged to one another until after their reports have been submitted, nor are their identities released to the candidate until after the examination result is made known by the Office of Graduate Studies. If a *viva voce* examination is held, however, their identities will be divulged at that time.

### **Submission of the Thesis**

Before submitting the thesis, the candidate should discuss the thesis with the supervisor(s). Approval is required from the supervisor(s), HoD and DoS (where applicable) that the thesis is ready to be submitted for examination.

PhD candidates are advised to submit copies of the thesis in a soft-bound format because this is relatively inexpensive and means that any required corrections or amendments can be made before the hard binding of the final copies. Soft-bound copies of the thesis must include a signed declaration that the research work was done by the candidate personally and that the material has not previously been accepted in whole, or in part, for any other degree or diploma. A copy of the standard format of this declaration is available from the Office of Graduate Studies.

For the purposes of the examination, **four (4) copies** of the thesis should be submitted to the Office of Graduate Studies.

Candidates should also ensure that they have further copies of the thesis available for use by themselves and their supervisors for the purpose of the *viva voce* examination. Submission of the thesis is acknowledged by the Office of Graduate Studies by a letter to the candidate.

### **Report by the Supervisors**

When the thesis is submitted for examination, the supervisor(s) shall provide a brief report on the work of the candidate. The report should:

- confirm that the work has been done under their immediate supervision and outline the part played by all involved in the supervision;
- attest that the supervisor(s) have read the thesis in its entirety in a final draft and state whether the supervisor(s) agree that the thesis is suitable for submission;
- if parts of the thesis are based on published work under joint authorship, provide a statement about the extent to which this is the candidate's own work; and
- provide any other relevant information on the candidate's work.

The report should be signed by the supervisor(s) and sent to the Office of Graduate Studies, who will release a copy to the Dean of Graduate Studies. At the discretion of the Dean, the report may be released to the examiners and then only after the examiners' reports have been submitted.

### **Written Reports from Examiners**

Each of the examiners is requested to furnish a written report on the thesis together with an assessment of its acceptability in line with the University's five-point scale:

- Accept, or accept with minor editorial corrections* (the corrections required are minor and can be completed in a short period of time, normally not longer than a few weeks. The Dean of Graduate Studies (or his/her nominee) will check that the corrections have been made satisfactorily)
- Accept after amendments have been made to the satisfaction of the Dean of Graduate Studies in consultation with the internal examiner* (the amendments required can be completed within a few months, normally not longer than two or three months. The amendments will be made to the satisfaction of the Dean of Graduate Studies in consultation with the internal examiner).
- Revise and resubmit for examination* (the thesis is not of the required PhD standard and requires substantial revision involving up to six months of work or possibly a little longer. The revised thesis will be resubmitted formally to all three examiners for a repeat examination).
- Reject and refer to the appropriate authority within the University for consideration of the award of another degree* (the thesis is not of the required PhD standard and there is no likelihood that revisions will bring it up to that standard. However, the thesis may meet the standards required of an alternative degree, possibly a Master's degree).

e) *Reject with no right of resubmission* (the thesis is not of the required PhD standard and there is no likelihood that revisions will bring it up to that standard, nor does the thesis meet the standards required of an alternative degree).

The examiners are asked to comment on the thesis with reference to the description of the degree (see above).

Examiners are requested to respond to the following questions:

- Does the thesis comprise a coherent investigation of the chosen topic?
- Does the thesis deal with a topic of sufficient range and depth to meet the requirements of the degree?
- Does the thesis make an original contribution to knowledge in its field and contain material suitable for publication in an appropriate academic journal?
- Does the thesis meet internationally recognized standards for the conduct and presentation of research in the field?
- Does the thesis demonstrate both a thorough knowledge of the literature relevant to its subject and general field and the candidate's ability to exercise critical and analytical judgement of that literature?
- Does the thesis display mastery of appropriate methodology and/or theoretical material?
- The reports should also contain specific comments on those parts of the thesis that the examiners believe to require correction or amendment.

The examiners form their own independent assessments of the thesis without discussion amongst themselves or with the candidate. Should discussion be necessary amongst the examiners, it will be co-ordinated by the Dean of Graduate Studies.

The examiners send their reports directly to the Office of Graduate Studies. From there, they are forwarded to the Convener of Examiners, namely the Dean of Graduate Studies. The examiners normally retain their copies of the thesis.

### **The Viva Voce Examination**

A *viva voce* examination is mandatory for the award of the PhD degree. It is held after the examiners' reports have been submitted. The aim of the *viva voce* examination is to provide an opportunity for the examiners to question the candidate on aspects of the thesis. It should be designed to elicit information on any or all of the following issues:

The Convener of Examiners – (the Dean of Graduate Studies) - chairs the *viva voce* examination session and it is attended by the candidate, the Supervisor(s), members of the PRC, the Internal Examiner, the Ghana External Examiner, and the Overseas External Examiner. In cases when this arrangement proves impracticable, at the discretion of the Dean of Graduate Studies the *viva voce* examination will be conducted by audio/video conferencing.

Under these circumstances, the Internal Examiner and at least one of the other examiners will be involved in the examination. At the discretion and invitation of the Dean of Graduate Studies, the HoD and the DoS may contribute to the *viva voce* examination. After



consultation with the examiners, the Dean of Graduate Studies may approve the attendance of others .

If appropriate, the Convener may arrange for copies of the examiners' reports to be made available to each of the participating examiners before the *viva voce* examination. Correspondence between the examiners should take place only via the Convener. The Convener should make arrangements for the *viva voce* examination. The candidate and supervisors should be notified in reasonable time on the substantive issues to be raised in the oral examination. These issues will be drawn from the examiners' reports and agreed upon through consultation with the examiners. The Convener should also outline the format for the *viva voce* examination and determine who will be present, and advise the candidate and examiners accordingly.

To assist the candidate to prepare for his/her *viva voce*, the Dean of Graduate Studies should supply the candidate with copies of the examiners' reports (without their names or any confidential sections).

The main objectives of the *viva voce* examination are to:

- establish that the candidate fully understands the work and its wider implications;
- provide the candidate with an opportunity to reply to criticism or challenge
- provide the candidate with an opportunity to:
  - defend the thesis
  - provide justification for the inclusion or exclusion of material
  - provide explanation for and justification of the use of particular research methods and techniques
  - provide defense of the originality of the thesis
  - clarify any points of ambiguity within the thesis
  - justify the conceptual approach taken in the thesis
- enable the examiners to clarify issues in the thesis which may be unclear
- assist in determining the final result of the examination; and
- help the examiners to decide on the nature and extent of any corrections or revisions which may be required.

The format of the *viva voce* examination will vary from case to case. Normally, it will include the following: a brief overview of the thesis by the candidate; questions from the examiners on the substantive issues communicated to the candidate beforehand; other questions and “free” discussion. The demonstration of the research output may form part of the *viva voce*.

Questions may also be addressed to the supervisors.

Once the oral examination has concluded, the Convener and the examiners will confer in private.



## **The Result**

The result of the examination is decided by the Graduate Studies Board under delegated authority of the University after receipt of the examiners' recommendation from the Convener –the Dean of Graduate Studies. In cases where the examiners are unable to reach a unanimous recommendation on a thesis, the Convener should report this to the Graduate Studies Board which will initiate arrangements to appoint a referee to make a final recommendation. The referee will normally be a person of international academic standing.

### ***Communication of the Result to the Candidate***

Once the result is decided, the Office of Graduate Studies will officially communicate same to the candidate. Where the examiners have requested amendments or require more fundamental revision of the thesis, these will be outlined in an accompanying letter written by the Dean of Graduate Studies in consultation with the examiners. The candidate and the HoD/DoS will also receive copies of the supervisors' and examiners' reports at this time, and the supervisors will receive copies of the examiners' reports. These reports will reveal the identity of their writers.

### ***After the Result is Received***

After the candidate has been informed of the result, he/she will follow the instructions set out in the letter from the Convener of the examination – The Dean of Graduate Studies.

If the result is

(i) **“Accept, or accept with minor editorial corrections”**, the corrected thesis should be submitted to the Convener, who will check that the corrections have been done satisfactorily.

If the result is

(ii) **“Accept after amendments have been made to the satisfaction of the Convener of Examiners in consultation with the Internal Examiner”**, the amended thesis should be submitted to the Convener, who will check that the amendments have been done satisfactorily in consultation with the Internal Examiner.

If the result is

(iii) **“Revise and resubmit for examination”**, the candidate should revise the thesis substantially in line with the recommendations of the examiners under the guidance of his/her supervisor(s). Once the revised thesis is complete, it should be resubmitted for examination as described above. The revised thesis will normally be examined by the same examiners as the original thesis. The process will be the same as for the original examination except that a revised thesis shall not be recommended for further revision and resubmission. In other words, after the candidate has resubmitted a revised thesis, the examiners have four, and not five, possible examination results to select from. In the case of a revise and resubmit result after a *viva voce* examination has been held, a further *viva voce* examination is permissible after the candidate has revised and resubmitted the thesis.

If the revised thesis is recommended for acceptance – (i) *“Accept, or accept with minor editorial corrections”*, or (ii) *“Accept after amendments have been made to the satisfaction of the Convener of Examiners in consultation with the Internal Examiner”* - minor corrections



or amendments should be made in accordance with the process outlined above. If the thesis is not recommended for acceptance, the result (iv) *“Reject and refer to the appropriate authority of the University for consideration of the award of another degree”*, or (v) *“Reject with no right of resubmission”*, will be recommended.

If the result is

(iv) *“Recommend for another degree and refer to the appropriate authority within the University”*, the examiners may recommend that amendments be made to the thesis before it is submitted for the award of another degree (typically, a Master’s degree). The thesis, together with the examiners’ reports and recommendations, will then be forwarded to the appropriate authority for action and the candidate notified accordingly.

If the result is

(v) *“Reject with no right of resubmission”*, no further action is required.

### **Contact with Examiners**

*Under no circumstances should a candidate enter into direct contact with the examiners during the examination process (including the amending and revising process), apart from during the viva voce examination.*

### **Timing of Amendments and Revisions**

If a thesis requires minor editorial corrections (i) or amendments (ii), the candidate is expected to complete this work within two months of notification of the result of the examination.

If a thesis requires revision (iii), the candidate is expected to complete this work within six months of notification of the result of the examination. If the candidate exceeds these time limits, the University reserves the right to require the candidate to re-enroll with or without the payment of tuition fees.

### **Leave to Appeal**

A PhD candidate may seek leave to appeal the decision of the examiners under the University’s “Regulations Relating to Student Appeals to the Academic Appeals Board”

### **Final Arrangements**

Once the examination process is completed, the candidate will be notified of the final result. Should the result be to award the PhD degree, the candidate will be required to:

- forward **three** permanently bound hard copies and the electronic copy of the final version of the thesis to the Office of Graduate Studies; and
- complete a standard Library Declaration Form concerning the thesis. A copy of this form is available at the Office of Graduate Studies. Any variations to this standard form require special approval.

Notification of the successful result will be sent to the Office of Graduate Studies who would advise about graduation arrangements.

A wide-angle photograph of Niagara Falls, showing the Horseshoe Falls on the right and the American Falls on the left. The water is white and turbulent as it falls over the rocky cliffs. A dense forest of green trees lines the top of the falls. In the bottom left corner, a person is visible standing on a walkway with a metal railing, looking towards the falls. The sky is a pale blue.

**'Most of the things worth doing in  
the world had been declared impossible  
before they were done'**

**— *Louis D. Brandeis***





## STANDARD OPERATING PROCEDURE FOR PROCESSING THE PHD THESIS

The forms that are required to be completed as part of the PhD process are:

**Form A:** to be completed by the HoD/DoS on application for approval of Internal and External Examiners

**Form B:** to be completed by the Supervisor(s), and Student on submission of thesis to the Student Records and Examinations Office

**Form C:** to be completed by the Internal and External Examiners on completion of *viva voce* examination.

All forms can be obtained from the Graduate Studies Office or from the University website.

### **Step 1. Approval of Names of Internal and External Examiners – Form A**

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It is the responsibility of the PhD candidate to notify the OGS of his/her intention to submit at least two months prior to the proposed date of thesis submission. Once notified, the OGS will forward *Form A* to the HoD/DoS. The name(s) of the external and internal examiners must be approved by Dean of Graduate Studies in consultation with the Supervisor(s), the HoD/DoS and the OGS.

### **Step 2. Thesis Submission – Form B**

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When submitting **four** spiral bound copies of the thesis, it is the student's responsibility to submit the completed *PhD Submission Form B* as well as the correct thesis examination fee. It is the responsibility of the supervisor(s) to be satisfied that the thesis is ready for submission and if so to sign off on the *Submission Form B*.

Please note that each copy of the thesis must be accompanied by a summary/abstract of the thesis not exceeding 300 words in length

### **Step 3. Arranging the Viva Voce**

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It is the responsibility of the Dean of Graduate Studies in consultation with the relevant HoD/DoS and the chairperson of the relevant PRC to arrange the date and location of the *viva voce*. The *viva voce* should be arranged at least two weeks prior to the GSB meeting at which approval of the examiners' report would be sought.



### **Step 5. Examiners Report on the Viva Voce – Form C**

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Each examiner shall prepare a written report on the thesis. Where the examiners are in agreement, the External Examiner shall submit a joint report to the OGS for consideration by the Graduate Studies Board. It is the responsibility of the internal and external examiners to ensure that the Examiners' Report *Form C* is completed immediately after the *viva voce* while all examiners are still present. The report must be typed prior to the signatures by all examiners.

Where there is no agreement, separate reports should be submitted to the Office of Graduate Studies for consideration by the Graduate Studies Board with a view to making a recommendation to Academic Standards and Awards Board on the award of the Degree or otherwise. The Academic Standards and Awards Board on the recommendation of the Graduate Studies Board, will then appoint additional special external and internal examiners, if necessary.

### **Step 6. Thesis Correction**

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If the Graduate Studies Board recommends that the PhD Degree be awarded, the candidate must re-submit a hard bound copy of the PhD Thesis, embodying any changes prescribed by the Examiners, where recommended. It is the responsibility of the supervisor(s) to ensure that corrections are completed prior to date of the Graduate Studies Board meeting at which the examiners' report is to be considered.

A recommendation by the Graduate Studies Board to Academic Standards and Awards Board for the award of the degree shall not be made until the revised thesis, incorporating the recommended changes, and confirmed by the supervisor(s), has been lodged with the Office of Graduate Studies

**'You cannot teach a man anything; you can only  
help him find it within himself'  
— Galileo**



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