

ADAMA SCIENCE AND TECHNOLOGY UNIVERSITY



Office of Postgraduate Studies (OPS)- Website

2017

ASTU

1. Introduction

Adama Science and Technology University (ASTU) has been re-established as a model Science and Technology University under Ministry of Science and Technology (MoST). ASTU has a vanguard commitment to play the leading role in alleviating the ongoing technology development in the country, targeting human resource capacity building, through training and research at higher level.

Currently, to realize the mission bestowed by the Ethiopian government, MoST, ASTU has formulated a vision of being the first choice in Ethiopia and a premier center of excellence in applied sciences and technology in Africa by 2030. Mainly it has geared its main academic endeavor to research and postgraduate studies than ever before.

In this regard, the university has taken great strides towards introducing new postgraduate programs and developing standardized postgraduate curricula for both Masters and PhD programs. In the 2017/18 academic year the new curricula have been prepared for nineteen new Master's Programs and thirteen new regular PhD programs in Engineering and Applied natural science schools of ASTU.

ASTU's aspiration of developing to center of excellence in science and technology is also driven by considerable attention paid by the government. This has been manifested by benchmarking of German and Korean science and technology university management styles. The core strategy of Postgraduate (PG) Program is to pursue its vision and mission to enhance its research, linkage with industry, academic and scholarly activities and become a center of excellence for its programs, thereby improving its eminence in national and international rankings. It will be devoted to research and development work in line with global research trends and will incorporate the Community Based Education philosophy of the University, and will contribute to the national development through innovative projects and extensive research work.

On the other hand, all these fundamental changes in line with postgraduate affairs should be guided by one centrally set guideline which incorporates all rules and standards used to realize education and research quality and also maintain uniformity across all schools and departments in ASTU.

2. Postgraduate curricula development

Adama Science and Technology University currently exerts tremendous effort to become a leading Science and Technology University in the country in-line with the developmental strategy of MOST. It is one of the higher learning institutions in Ethiopia that has recognized the importance of establishing and maintaining strong PhD and Masters Programs. Since then, the postgraduate programs has been devoted to design new curricula graduate programs to satisfy the current demands of academic institutions, industries and research centers.

Major references made during preparation of the PG curriculum are:

- ❖ The experiences of some well-known Science and Technology Universities abroad
- ❖ MoST's Directives
- ❖ ASTU's Senate Legislation
- ❖ ASTU's postgraduate Guideline

3. ASTU'S new postgraduate programs

3.1 Masters Programs

Lists of Masters Programs in 2017/2018 A/Y

1. School of Applied Natural Science

- Master of Science in Applied physics
- Master of Science in Applied Biology
- Master of Science in Applied Chemistry
- Master of Science in Applied Mathematics

1. School of Electrical Engineering & Computing

- Master of Science in Electrical Power and Control Engineering
- Master of Science in Electronics & Communication Engineering
- Master of Science in Information System and Engineering
- Master of Science in Computer Science and Engineering Program

2. School of Civil Engineering & Architecture

- Master of Science in Geotechnical Engineering
- Master of Science in Urban Planning and Design
- Master of Science in Water Resources Engineering (Irrigation Engineering).
- Master of Science in Geo-informatics
- Master of Science in Environmental Architecture

3. School of Mechanical, Chemical and Materials Engineering

- Master of Science in Agricultural Machinery Engineering
- Master of Science in Materials Science and Engineering
- Master of Science in Automotive Engineering
- Master of Science in Manufacturing Engineering
- Master of Science in Thermal Engineering
- Master of Science in Chemical Engineering

NB. All of the above nineteen MSc programs were launched this year (2017/2018 Academic year)

3.2 Regular PhD Programs

Lists of Regular PhD Programs and specialization areas in 2017/2018 A/Y

Schools	No	Programs	Specialization areas
Applied Natural Science	1	Applied Chemistry	PhD in Applied Chemistry (Organic Synthesis, Natural Product Chemistry and Medicinal Chemistry specializations, Bio- inorganic and material Chemistry specializations)
	2	Applied Physics	Material Physics, Laser Spectroscopy, Condensed Matter Physics and Quantum Optics & Information specializations.
	3	Applied Biology	Plant Biotechnology, Animal Biotechnology, Environmental Biotechnology, Health Biotechnology, Pharmaceutical Biotechnology specializations
	4	Applied Mathematics	Numerical, Analysis, Applied Differential, Equations, Mathematical modeling, Optimization, Algebra, and Combinatorics specializations.
Civil Engineering & Architecture	5	Water Resource Engineering	Irrigation Engineering
Electrical Engineering & Computing	6	Computer Science and Engineering	Computer Science and Engineering
	7	Electronics and Communication Engineering	Electronics and communication Engineering
	8	Electrical Power and Control Engineering	Electrical Engineering
Mechanical, Chemical & Materials Engineering	9	Mechanical system and vehicle Engineering	Agricultural Machinery Engineering
	10	Mechanical Design and Manufacturing Engineering	Manufacturing Engineering
	11	Mechanical system and vehicle Engineering	Automotive Engineering
	12	Chemical Engineering	Chemical Engineering

NB. Teen of the above mentioned PhD programs were launched in 2017/108 academic year. But, two of them (Electronics and Communication Engineering and Electrical Power and Control Engineering) are not yet launched.

In addition to the Regular PhD Programs there are other programs like Ethio - German Homegrown PhD by Research and Ethio - Belgium postgraduate programs. These PhD program are special programs handheld by agreements of two countries or by the two higher learning institution, domestic and abroad.

4 Admission requirements to postgraduate programs

4.1 Master's Programs Admission requirements

Generally a student who has a high scholastic standing, with professional experience is eligible to apply for postgraduate program. Detail admission requirements are given hereunder.

- All students applying to join ASTU in the Master's program shall sit for written entrance examination prepared by respective department.
- A minimum of five Master's students shall be admitted in any program.
- The maximum number of postgraduate students assigned to an academic staff for advisory shall not exceed eight for all years. Therefore, the maximum number of students admitted to specific program shall be determined by number of academic staff available, availability of space, resource and demand for training.
- The OPS shall approve matching of accepted Master's students with number of available academic staff before getting registered.
- The OPS through discussion with concerned schools may, from time to time, include additional admission requirements in conformity with the university's rules and regulation. These may be of general application or may pertain to specific programs of graduate studies.
- Any well-qualified person with a bachelor's degree from an accredited institution of higher learning or with equivalent international education may apply for admission to the master's program.
- Foreign applicants sitting for entrance examination, submit results of GRE/TOEFL/ELTS or equivalent, language proficiency examination (for applicants whose high school and undergraduate medium of instruction is not English, etc.).
- An applicant to Master's program shall possess BSc/BA/MBA degree in respective field of study and rate at least "good" (C) in his/her undergraduate senior project/seminar/ senior essay.
- An applicant shall score a CGPA (Cumulative Grade Point Average) of at least 2.5 for female and 2.75 for male.
- An applicant should fulfill other possible additional criteria set by respective program/school which is not violating these centrally governing criteria.
- All university-wide non-academic requirements for admission to Master's program in ASTU shall apply as stipulated in the university senate legislation.
- An applicant requires acceptable recommendation letter from two referees of his/her previous higher learning institution.

- The selection of applicants shall be made based on the academic achievement and other related criteria indicated below.
- Selection criteria shall be weighed appropriately and shall be subjected to the approval of program level graduate committee.
- In case male and female applicants are in equal status, female applicants shall be favored as an affirmative action.
- Pass mark for acceptance to master's program is 60% and above to all field of study.
- In case large number of applicants fulfills the pass mark, the respective program/school shall determine the cut-point to accept maximum number of students in line with the existing academic staff and other available resources.

Selection Criteria:

NO	Criteria	%
1	CGPA	30
2	Written entrance examination	60
4	Related field of specialization	5
5	Recommendations	5
Total		100%

Note: The CGPA of every applicant shall be multiplied by 7.5.

4.2 Admission to PhD Programs

Generally a research scholar who has a high scholastic standing, with professional experience is eligible to apply for PhD program. Detail admission requirements are given hereunder.

- All research scholars applying to join ASTU in the PhD program shall sit for written entrance examination prepared by respective program.
- A minimum of one research scholars shall be admitted in any program.
- Maximum number of PhD students assigned to an academic staff for supervisory shall not exceed eight for all years. Therefore, the maximum number of research scholars admitted to specific program shall be determined by number of academic staff available, availability of space, resource and demand for training.
- The OPS shall approve matching of accepted PhD students with number of available academic staff before getting registered.
- The OPS, through discussion with concerned schools, may from time to time include additional admission requirements in conformity with the university's rules and regulation.
- Any well-qualified person with a Master's degree from an accredited institution of higher learning or with equivalent international education may apply for admission to the PhD program.

- Foreign applicants may, in lieu of sitting for entrance examination, submit results of GRE/TOEFL/ELTS or equivalent, language proficiency examination (for applicants whose high school and undergraduate medium of instruction is not English, etc.).
- An applicant to PhD program should possess MSc/MA degree in respective field of study and rate at least “good” (B) in his/her MSc/MA thesis or project.
- An applicant should score a cumulative grade point average of at least 3.0 for female applicant and 3.25 for male applicant.
- An applicant should fulfill other possible additional criteria set by respective program/school which is not violating these centrally governing criteria.
- All university-wide non-academic requirements for admission to PhD program in ASTU shall apply as stipulated in the university senate legislation.
- An applicant requires acceptable recommendation letter from two referees of his/her previous higher learning institution.
- The selection of applicants shall be made based on the academic achievement and other related criteria indicated in the table below.
- Selection criteria shall be weighed appropriately and shall be subjected to the approval of Program level graduate committee.
- In case male and female applicants are in equal status, female applicants shall be favored as an affirmative action.
- Pass mark for acceptance to PhD program is 70% and above to all field of studies.
- In case large number of applicants fulfills the pass mark, respective program/school shall determine the cut-point to accept maximum number of students matching the existing academic staff and other available resources.

Selection Criteria

NO	Criteria	%
	CGPA (MSc/MA)	30
	Written entrance examination	50
	Synopsis	15
	Recommendations	5
	Total	100%

Note: The CGPA of every applicant shall be multiplied by 7.5.