

# Tuskegee University

- x Three Letters of Recommendation
- x Statement of Purpose
- x GRE Scores
- x Financial Affidavit (International Students –only)
- x Test of English as Foreign Language (TOEFL Scores (International students only).

Graduation Requirements:

A. The Master of Science, Non-Thesis Option (Online Only)

The non-thesis M.S. is a professional degree in which a student must complete a minimum of 32 credit hours of graduate course work to receive the degree, and other requirements may be specified by the department. Thus, programs leading to this degree provide opportunities for students to increase their knowledge and competencies in the various agricultural disciplines. A student, according to his/her needs may obtain a balanced and varied training encompassing a wide spectrum of subject matter areas or obtain intensive training in a specified area. The emphasis of the program is to enable students to develop skills as professional practitioners in the communication of technical knowledge and its application to the solution of current and future technical, economic, and social problems of individuals and groups. The expected duration of the Non-Thesis Option program is 12-18 months.

- x Core Courses: 14-15 Credits
- x Area of Concentration (PS) Courses: 12 Credits
- x Elective Courses: 6 Credits (Any graduate level courses 500 or above outside EVSC)
- x Admission to Candidacy
- x Passing of the Final Oral Examination

Course and Credit Requirements for Master of Science, Non-Thesis Option

To earn a professional degree, a minimum of 30 graduate credits are required comprising 15 credit hours of core courses, 12 credit hours for the area of concentration (Environmental Sciences; EVSC) and 9 credit hours of electives in a discipline other than the student's concentration. The final project/paper will account for 6 credit hours of the core requirements. As all M.S. degree candidates must take at least two graduate courses in biometry (EVSC 500 and 501) before graduation, if undergradua

Core Courses (15 credits)

EVSC 0501	Biostatistics II	3 credits
EVSC 0504	Environmental Science II	3 credits
EVSC 0507	Introduction to Geographic Information Systems	3 credits
EVSC 0545	Remote Sensing; Principles and Applications	3 credits
EVSC XXX1	Environmental Management/Policy	3 credits
EVSC 0560	Hydrology and Water Resources Management	3 credits
EVSC 0570	Agrometeorology	3 credits
EVSC XXX2	Online Seminar	3 credits

Professional Development Project (6 credits)

AGSC 0699	Non-thesis Graduate Project	6 credits
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Elective Courses (9 credits)

EVSC 0500	Biostatistics I	3 credits
PLSS 0510	Soil Physics	3 credits
EVSC 0517	GIS Applications	3 credits
PLSS 0521	Soil and Water Conservation	3 credits
EVSC 0522	Introduction to Toxicology	3 credits
EVSC 0580	Environmental Legislation Study	3 credits
EVSC 0555	Soil Chemistry	3 credits
EVSC 0590	Soil/Environmental Microbiology	3 credits
EVSC xxx3	Environmental Auditing	3 credits
EVSC 610	Climate Change and Climate Modeling	3 credits

Advisory Committee

A three-member Advisory Committee will be appointed to guide and monitor the student's professional development. The chairman of the appointed committee shall serve as the student's advisor.

Other:

Professional Development Document/Thesis

The final draft of the non-thesis document or the thesis must be filed with the student's Advisory/Examining Committee at least 30 days before the date listed in the university calendar for final copies to be submitted during the semester in which the student expects to graduate. The student must present to the Dean of Graduate Programs a "Preliminary Approval Sheet" (PAS) bearing the signature of the Major Professor before the final oral examination may be scheduled and before copies of the thesis are distributed to members of the Advisory/Examining Committee. After the "Preliminary Approval Sheet" has been signed, it should be submitted to the Dean of Graduate Programs before the examination is scheduled and before the final draft of the thesis/dissertation is prepared for final approval. Approval of the Professional Development Document/Thesis in its final form rests with the Advisory/Examining Committee.

Transfer Credits

A maximum of nine (9) semester hours may be transferred from graduate courses taken at other university provided the student has grades of B or better in these courses. For students who are pursuing a second Master's degree at Tuskegee University, nine hours of credit are transferable from courses taken to fulfill the requirements of the first degree. Transfer credits may be recommended under both core and elective categories.

#### Admission to Candidacy

Immediately after completing 15 credits of coursework at Tuskegee University, the student must submit to the Dean of Graduate Studies, a completed application for the Candidacy for the degree.

#### Seminars

A student pursuing the Master of Science degree in Environmental Sciences must present at least two seminars. The first seminar (AGSC 0600 equivalent) shall be the presentation of the student's research proposal to the Master's thesis. The second (AGSC 0604 or equivalent) shall be his/her final seminar. The student is also required to participate in all seminars arranged by the department regardless of if he/she is enrolled in the course or not.

### List of Courses

#### (Master of Science Non-Thesis Options)

AGSC 0699. NON-THESIS GRADUATE PROJECT. 1<sup>st</sup> and 2<sup>nd</sup> Semesters, Summer, 3 credits. Research, preparation and protection of final project paper under the direction of a major advisor. Students in this program will be required to select research problems on a specific topic concentrating on the investigation of problems in agricultural, Environmental and related sciences.

EVSC 0500. BIO-STATISTICS I. 1<sup>st</sup> Semester. Lect. 2, Lab 3 credits. Statistical methods in scientific research. An introductory course in statistics dealing with the application of various methods of analyzing research data to include sampling, randomization, the normal distribution, "t" test, linear regression, correlation, Chi-Square, and analysis of variance of random design.

will be discussed. Pesticides, radiation hazards, industrial chemical and potential biological hazards will be considered. Prerequisite: CHEM 0320 or Permission of Instructor.

EVSC 0507. INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS. 1 Semester. Lect. 2, Lab 1, 3 credits. Introductions to GIS concepts. Basic theoretical concepts, computer cartography, database systems, getting maps into digital form and geocoding. Familiarity with Arc-GIS software.

EVSC/PLSS 0510. SOIL PHYSICS. 2<sup>nd</sup> Semester (Even years). Lect. 3, 3 credits. Theory and practice of quantifying soil particle and pore distributions, soil structure, soil water content, soil water potential, saturated and unsaturated flow, infiltration, drainage, energy balance, evapotranspiration and irrigation.

EVSC 0517. GIS APPLICATIONS.

EVSC 0521. EVSC 0517. SPECIAL STUDIES IN GIS. 2<sup>nd</sup> Semester. Lect. 2, Lab 1, 3

EVSC 0695. SPECIAL TOPICS IN ENVIRONMENTAL SCIENCES. 1<sup>st</sup> and 2<sup>d</sup> Semesters. Lect. 3, 3 credits. Topics in the advanced level may be selected from the following: biochemistry, environmental sciences, chemistry, soil sciences and veterinary sciences.

EVSC XXX1. ENVIRONMENTAL MANAGEMENT/POLICY.

EVSC XXX2. ONLINE SEMINAR.

EVSC XXX3. ENVIRONMENTAL AUDITING.

EVSC 0752. CONTINUOUS REGISTRATION. 1<sup>st</sup> and 2<sup>nd</sup> Semesters, Summer. 0 credits. Restricted to graduate students who have not taken courses including ESC 0700 and need to use the service and resources of the University to complete their theses or reading for graduate examination. Students may have a maximum of two registrations only; afterward registration as a regular graduate student will be required until degree requirements have been completed. Prerequisite: Permission of major advisor.

EVSC 0754. CANDIDATE FOR DEGREE ONLY. 1<sup>st</sup> and 2<sup>nd</sup> Semester, Summer. 0 credits. Restricted to graduate students who have completed all requirements for graduate degree including final oral or comprehensive examination, submission of thesis and approval of the thesis by the Office of the Graduate Programs. Students will be permitted to register in the category one time only.

\*\*Note: At the time of program development the listed courses comprise EVSC/PLSS courses; however, any EVSC/PLSS courses developed hereafter and meet the requirements indicated may be used to fulfill the concentration requirements indicated above. Further, elective courses may include those in any discipline offered at the graduate level (500 or above) as specified above. For students in the online program, availability of courses may be available on a limited basis; students will need to confer with the program coordinator.

#### Key Graduate Faculty

Name	Specialty Area	Phone	E-mail Address
Kokoasse A-Kpomblekou	Soil Chemistry and Waste Management	334-724-4522	akpomblekou@mytu.tuskegee.edu
Deloris Alexander	Prebiotics, Probiotics	334-724-4667	dalexander@mytu.tuskegee.edu
Ramble Ankumah	Soil Sciences, Environmental Sciences		rankum@mytu.tuskegee.edu
Conrad Bonsi	Plant Breeding	334-727-8333	cbonsi@mytu.tuskegee.edu
Marceline Egnin	Plant Biotechnology/Molecular Biology and Plant Breeding	334-724-4404 or 727-8084	Megnin@mytu.tuskegee.edu
Gamal El Afandi	Climate Change	334-724-4790	geafandi@mytu.tuskegee.edu

Souleymane Fall	Climate Change, GIS	334-421-7567	sfall@mytu.tuskegee.edu
Guohao He	Plant Genomics, Genetic Mapping, QTL Mapping, Molecular Breeding	334-727-8459	Hguohao@mytu.tuskegee.edu
Jacquelyn Jackson	Plant Biotechnology/Molecular Biology	334-724-4953	jjackson@mytu.tuskegee.edu