



**University Admissions Requirements:**

Although it is required that applicants submit GRE scores to complete the admissions application, no minimum is required.

Official Transcript from all colleges/universities attended (International Students must have transcripts translated through World Education Services -WES).

Completed Application along with the required amount of application fees

Three Letters of Recommendation

Statement of Purpose

GRE Scores

Financial Affidavit (International Students –only)

Test of English as Foreign Language (TOEFL) Scores (International students only).

**Graduation Requirements:****A. The Master of Science, Non-Thesis Option (*Residential and Online*)**

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

course may be included in the curriculum as an elective course. All courses must be approved by the Advisory Committee. Following the completion of 15 credits, students are required to be admitted to Candidacy. In addition to the course work outlined above, students must present 1) an **acceptable document** comprising a minimum of 20 pages on a selected professional problem or a report of training and 1) pass a **Final Oral Examination** based on the document as determined by the Advisory Committee.

**Core Courses (14 credits)**

(EVSC) and **7 credit hours** of electives. As all M.S. degree candidates must take at least two graduate courses in biometry (EVSC 500 and 501) before graduation, if undergraduate work was done at Tuskegee University and EVSC 500 was required for graduation, it may not be transferred to graduate work; thus, an appropriate substitute will be required. For those who have not completed EVSC 500, this course may be included in the curriculum as an elective course. All courses must be approved by the Advisory Committee. Following the completion of 15 credits, students are required to be admitted to Candidacy. In addition to the course work outlined above, students must present 1) an **acceptable thesis** on a selected research project and 2) pass a **Final Oral Examination** based on the document as determined by the Advisory Committee.

**Core Courses (11 credits):**

EVSC 0500	Biostats I*	3 credits
EVSC 0501	Biostats II (AGEC 0615 – Quantitative Methods or equivalent)	3 credits
AGSC 0600	Non-Thesis/Thesis Graduate Project Seminar I	1 credit
AGSC 0604	Non-Thesis/Thesis Graduate Project Seminar II	1 credit
EVSC 0700	Research in Environmental Sciences	6 credits

\*Courses in discipline approved by Advisory Committee may be substituted for these courses.

**Advisory Committee**

A Major Advisor will be assigned to the student by the department head if the student has not already identified one. The Department of Agricultural and Environmental Sciences and the Dean of Graduate Programs encourage the formation of an Advisory Committee during the first semester of your graduate studies. In consultation with the Major Advisor, the Advisory Committee should be selected and is comprised of three members (including the Major Advisor). At least two must be in the area of the student’s research interest. Together with the Major Advisor, the student will identify a research problem (subject matter to study) and prepare a research proposal for subsequent approval by the committee. It is the student’s responsibility to contact each prospective committee member to see if he/she will serve on the Advisory Committee. It is recommended that the student obtain the written approval of each committee member. After the approvals are received, the Department head, College and Graduate School deans are to be notified of the committee members. The Major Advisor serves as chairperson of this committee and will convene meetings at his/her discretion.

**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 y c1.15 TDmich -1.15 TD.0005 -26.4(st)TJt

the Dean of Graduate Programs before the final 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 course work 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 or equivalent) shall be the presentation of the student's research proposal of 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 or she is enrolled in the course or not.

### **Research and Teaching Assistantships**

Funding through research and teaching assistantships is available for accepted graduate students on a competitive basis (residential only). While thesis option students may qualify for support for tuition and stipend; non-thesis option students may only qualify for a work study (15 hr/wk). Research and teaching assistants are expected to provide service to the Department through conducting or assisting with research, teaching and other projects related to the college. Continuation of the financial support depends on student's performance in course work, satisfactory progression on research/professional development project and availability of funds.

## **List of Courses**

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

AGEC 0505. AGRIBUSINESS MANAGEMENT: 2<sup>nd</sup> Semester. Lect. 3. Economic principles applied to organization and operations of farms; introduction to farm financial management techniques. 3 credits.

AGEC 0553. MACROECONOMICS AND APPLICATIONS IN AGRICULTURE. 2nd Semester. Lect. 3, 3 credits. An advanced look at theory and applications to agriculture of the circular flow framework, supply and demand in the macro-economy, labor and factor markets, aggregate real supply and demand analysis; effects of fiscal and monetary policy on the price level, real output, and unemployment; budget deficits, and stability of the banking system.

AGEC 0604. MICROECONOMICS. THEORY AND APPLICATIONS TO AGRICULTURE. 1st Semester. Lect. 3, 3 credits. Advanced topics in consumer and producer theory and applications to agriculture, equilibrium models and their application to agriculture, externalities and public goods, welfare, alternative market structures, simple dynamic models and resource depletion, choice and uncertainty.

AGEC 0615. QUANTITATIVE METHODS. 1<sup>ST</sup> Semester. Lect. 3. Statistical methods and their applications: probability density and distribution functions as background studying principles of economic models analyses; prediction problems, programming, scheduling and network; special topics of current interest 3 credits. Prerequisites: AGECE 553; ECON 352, 353.

AGEC 0622. RESEARCH METHODOLOGY. 1st Semester. Lect. 3, 3 credits. Selection, planning and conduct of research; alternative approaches, role of theory, beliefs and values. Critical appraisal of research tools and studies, empirical development, presentation and defense of researchable problems by students. Prerequisite: one year of graduate work, including statistics.

AGSC 0600. NON-THESIS GRADUATE PROJECT PROPOSAL SEMINAR I. 1<sup>st</sup> and 2<sup>nd</sup> Semesters. Lect. 1, 1 credit. Lectures from visiting scientists, and other organizations on topics related to Environmental science. Presentation of proposals for thesis/non-thesis projects and technical reports by students on research in Environmental science and related areas. This is a unique type of seminar in which knowledge from different areas will be integrated and students will write technical reports from the notes of the lectures combined with literature research. (Only one credit hour for any given semester will be allowed).

AGSC 0604. NON-THESIS GRADUATE PROJECT PROPOSAL SEMINAR. 1<sup>st</sup> and 2<sup>nd</sup> Semesters II. Lect. 1, 1 credit. Lectures from visiting scientists, and other organizations on topics related to Environmental science. Presentation of project results for non-thesis graduate projects by students on research in Environmental science and related areas. This is a unique type of seminar in which knowledge from different areas will be integrated and students will write technical reports from the notes of the lectures combined with literature research. (Only one credit hour for any given semester will be allowed).

AGSC 0699. NON-THESIS GRADUATE PROJECT. 1<sup>st</sup> and 2<sup>nd</sup> Semesters, Summer, 3 credits. Research, preparation and production of final project paper under the directions 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.

ECON 0512. INTRODUCTION TO INTERNATIONAL TRADE. 2nd Semester. Lect. 3, 3 credits. This course explores concepts, analytical tools and their applications to international economics. Introduction to theory and empirical foundations of international trade and factor movements. The theory of multi-country, multi-commodity trade. Problem of international disequilibrium. Public and private barriers to trade and monopoly of international trade. Search for economic stability and growth through international cooperation. International monetary



EVSC 0555. SOIL CHEMISTRY. 1st Semester, even years. Lect. 3, 3 credits. Theory and practice of the inorganic chemical reactions involved in soil development and nutrient availability and cycling; topics include chemical ion exchange equilibria and kinetics, colloidal systems, solubility diagrams and oxidation reduction. Prerequisites: CHEM 0231, 0232, PLSS 0210. Same as PLSS 0555.

EVSC 0590. SOIL/ENVIRONMENTAL MICROBIOLOGY. 1st Semester, Odd year. Lect. 3, 3 credits. Description, location, taxonomy, abundance and significance of the major groups of soil microorganisms, major biochemical transformations carried out by the organisms; major biochemical transformations carried out by the soil micro flora and their relationships to soil fertility and environmental pollution are examined. Prerequisites: CHEM 0320 or Permission of Instructor. Same as PLSS 0590.

EVSC 0626. SOIL TESTING AND PLANT ANALYSIS. 1<sup>st</sup> Semester, odd years. Lect. 2, Lab 3, 3 credits. Principles of plant and soil sample collection, extraction and determination of nutrients, and correlation and interpretation of analytical results; laboratory methods include atomic absorption and flame emission spectrophotometry, specific ion electrodes, and calorimetric, distillation and filtration procedures.

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

EVSC 0752. CONTINUOUS REGISTRATION. 1st and 2nd Semesters, Summer. 0 credits. Restricted to graduate students who have taken all courses including EVSC 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. 1st and 2nd 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.

IBSC 0601. RESEARCH ETHICS IN BIOSCIENCE. 1<sup>st</sup> Semester Lec. 2 hours. 3 credits. This course is open only to graduate students. A special focus will be ethical problems in bioscience related to race/ethnicity and work of minority bio-scientists. Instructors will primarily serve as learning guides. Extensive student preparation prior to class is essential. Students are expected to participate significantly in class discussion and conscientiously contribute to group



PLSS 0525. MINERAL NUTRITION AND SOIL FERTILITY. 2nd Semester. Lect. 3, Lab 3, 3 credits. Dealing with all essential and beneficial nutrient elements, absorption, translation and their metabolic association in plants.

PLSS 0530. PLANT BIOTECHNOLOGY. 2nd Semester. Lect. 3, 3 credits. A lecture discussion course for upper-level undergraduate and graduate students in agronomy and horticulture. The purpose is to introduce students to principles and applications of plant molecular and cellular genetics with emphasis on research developments including plant gene transfer, RFLP mapping, and plant gene expression.

**\*\*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 requirement indicated above. Further, elective courses may include those in any discipline offered at the graduate level (500 or above) as specified above. For students enrolled in the online program, availability of courses may be available on a limited basis; students will need to confer with online degree the program coordinator.**

### Key Graduate Faculty

Name	Specialty Area	Phone	E-mail Address
Kokoasse A-Kpoblekou	Soil Chemistry and Waste Management	334-724-4522	<a href="mailto:akpoblekou@mytu.tuskegee.edu">akpoblekou@mytu.tuskegee.edu</a>
Deloris Alexander	Prebiotics, Probiotics	334-724-4667	<a href="mailto:dalexander@mytu.tuskegee.edu">dalexander@mytu.tuskegee.edu</a>
Ramble Ankumah	Soil Sciences, Environmental Sciences		