



Bio-physical Agricultural and Natural Resource Management Curricula Components

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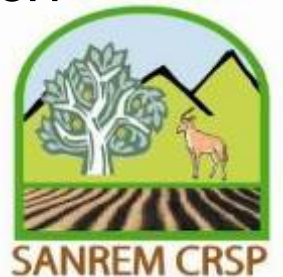
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**Catholic University
of Sudan**



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Outline

- **Purpose**
- **Methodology**
- **Results**
- **Discussion & Suggestions**



Purpose

Identify commonalities in bio-physical course components of “model” agricultural and natural resource management curricula.



Methodology

- **Identified agricultural and natural resource management (NRM) programs for comparison**
- **Limited to B.S. programs**
- **Principal focus on agricultural curricula**
- **Obtained curricula by degree program and entered into database for analysis**



Methodology

- **Identify “core” courses in agricultural and NRM curricula**
 - **Focus on biophysical courses.**
 - **Identified “core” courses at each university**
 - **“Core” courses defined as courses required in at least 50% of majors.**
 - **Compared identified “core” courses across universities to identify most common “core” courses**



Results

Programs considered

- Egerton University, Kenya
- Haramaya University, Ethiopia
- Moi University, Kenya
- University of Development Studies, Ghana (modeled on Makerere University, Uganda)
- Earth University, Costa Rica
- Zamorano, Honduras
- Catholic University of Sudan (proposed)



Egerton University, Kenya

Degrees

- **Agric. Business Management**
- **Agric. Economics**
- **Agronomy**
- **Animal Health Management**
- **Animal Production**
- **Dairy Science & Technology**
- **Food Science & Technology**
- **Horticulture**



Haramaya University, Ethiopia

Degrees

- **Agricultural Business Management**
- **Agricultural Economics**
- **Animal Production & Health**
- **Animal Science**
- **Crop Production & Protection**
- **Plant Sciences**
- **Soil & Water Management & Engineering**



Moi University, Kenya

Degrees

- **Agricultural Business Management**
- **Agricultural Economics**
- **Agronomy**
- **Animal Health Management**
- **Animal Production**
- **Dairy Science & Technology**
- **Food Science & Technology**
- **Horticulture**



University of Development Studies, Ghana

Degrees

- **Agricultural Economics & Extension**
- **Agronomy**
- **Agricultural Mechanization & Irrigation**
- **Animal Science**
- **Horticulture**
- **Renewable Natural Resources**



Earth University, Costa Rica

Degree

- **Agronomy**



Zamorano, Honduras

Degrees

- **Agribusiness Management**
- **Agricultural Science & Production**
- **Food Agroindustry**
- **Socioeconomic Development and Environment**



Catholic University of the Sudan

Degree

- **Agricultural and Environmental
Sciences (proposed)**





Core Courses Identified



0 1 2 3 4 5 6
Programs

Computer Science I

Mathematics I

Soil Science I

Statistics I

Chemistry I

Economics I

Marketing I

Mathematics II

Rural Sociology & Extension

Biology, Botany I

Biology, Zoology

Chemistry, Biochemistry

Crop Science I

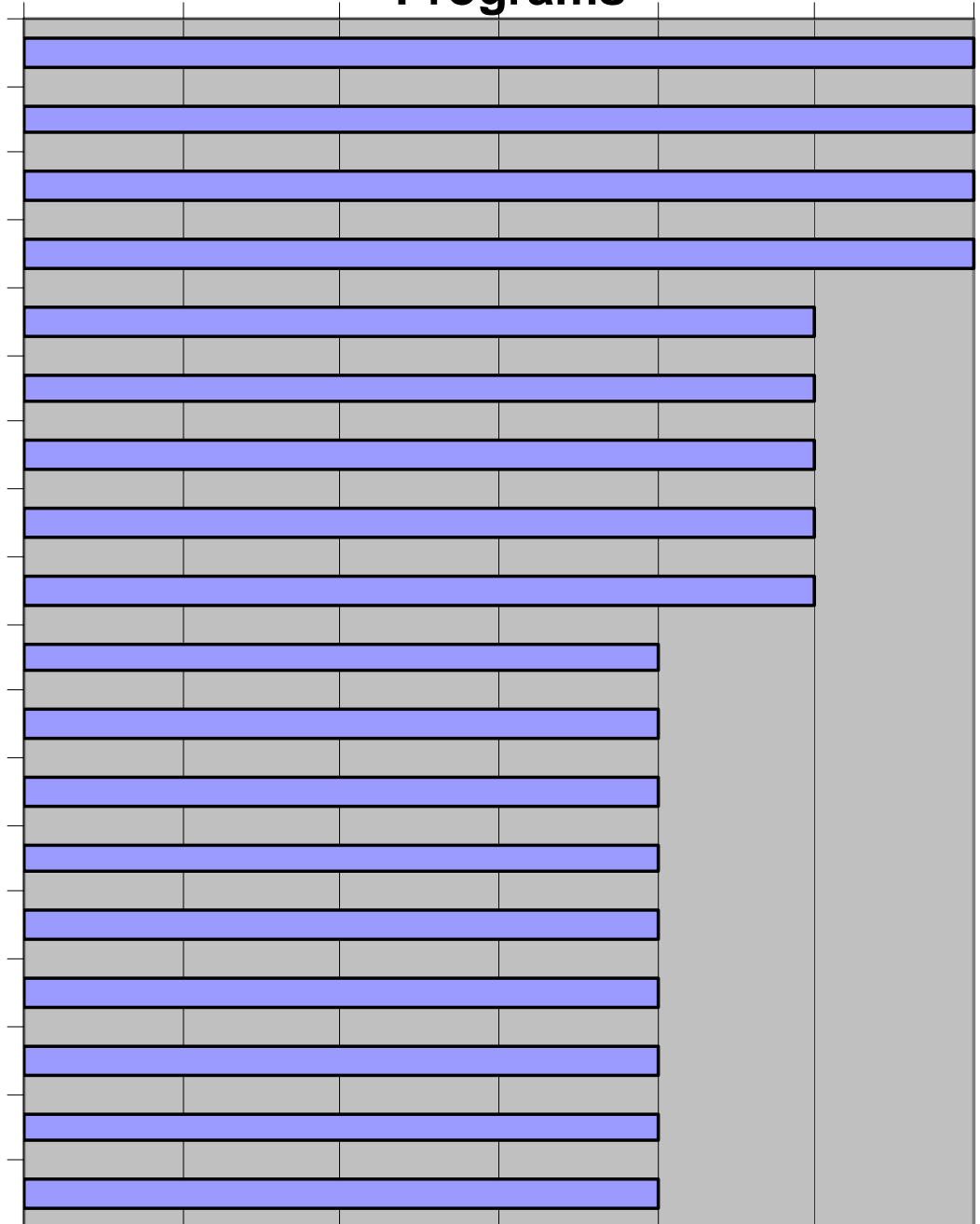
Experimental Design & Analysis

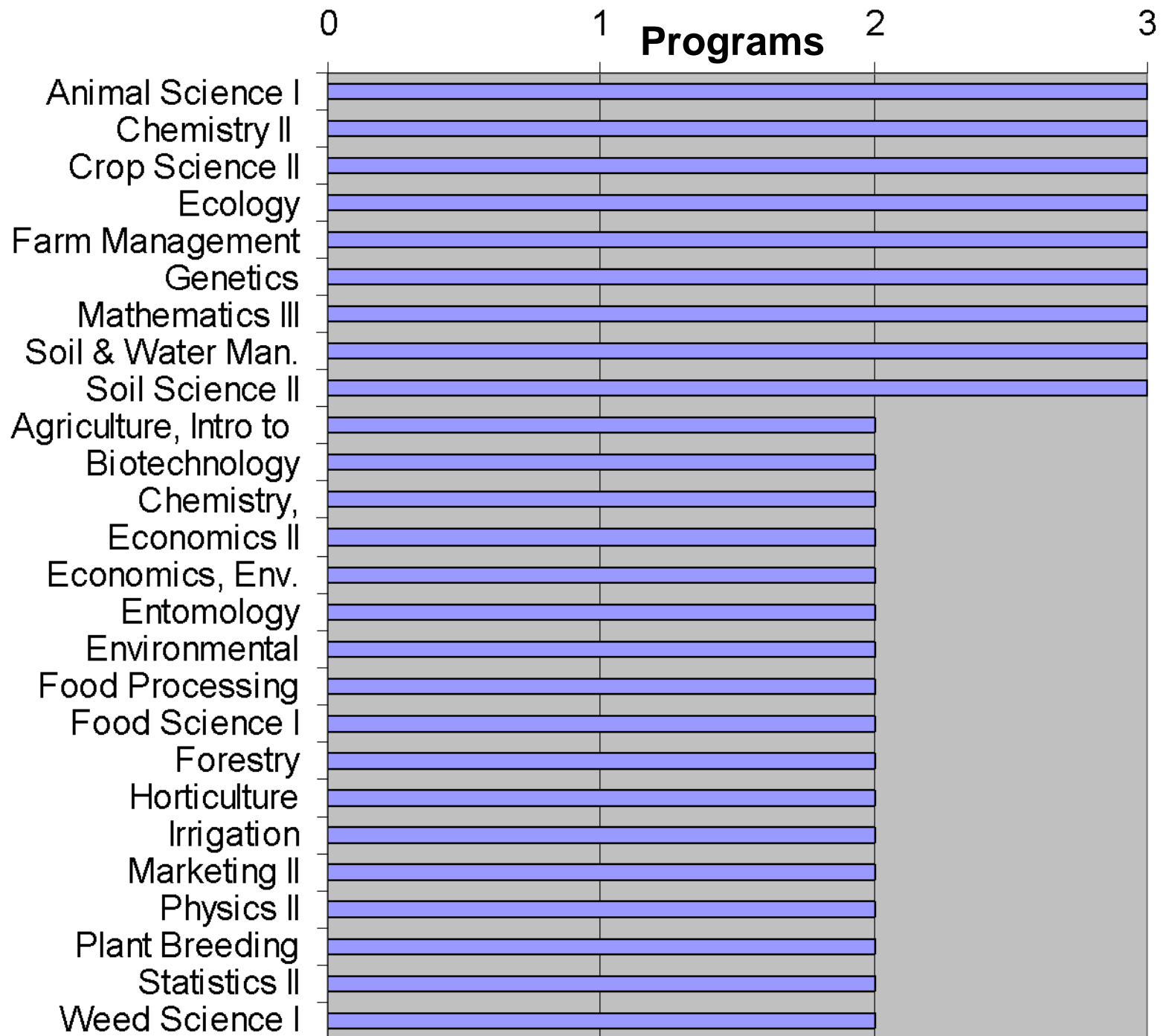
Extension Education

Physics I

Project Design & Evaluation

Rural Development







Core Courses

(Present in $\geq 50\%$ of programs)

Animal Science

Biochemistry

Biology, Botany

Biology, Zoology

Chemistry I, II

Computer Science

Crop Science I, II

Ecology

Economics

Extension Education

Farm Management

Genetics

Marketing I

Mathematics I, II, III

Physics

Project Design & Evaluation

Rural Development

Rural Sociology & Extension

Soil & Water Management

Soil Science I, II

Statistics

Exp. Design & Analysis

What is missing or unnecessary?



Questions and Discussion

A photograph of a sunset over a mountain range. The sky is filled with horizontal bands of orange and red clouds. The sun is a bright yellow line on the horizon, casting a glow over the landscape. The foreground shows the dark silhouettes of trees and the ridges of mountains.