Workshop Objectives

- Introduce current STEM pedagogies and curriculum ideas for better preparing science and agriculture teachers in Malawi.
- Discuss opportunities for course delivery through Open Distance Learning (ODL) for increased accessibility.
How do you see STEM education connecting to local communities?

- Use of indigenous knowledge
- Teachers are likely to understand the language and the customs
- Combines both indigenous and scientific knowledge
- Use of local culture and environment
- Allow people from local communities to contribute towards the improvement of learning
How do you see STEM education connecting to local communities?

- Community participation and support
- Very possible if planned well in consultation with the community
- Local structures can properly support STEM education
- High possibility of it happening provided community stakeholders and students themselves support
How do you see STEM education connecting to local communities?

- Use of blended modes will connect STEM education to local communities
- Through ODL – use of ICT
- Will help to create a network among learners (what they do in a classroom) and how they can relate it to everyday life...
- STEM education is a tool for solving local communities problems - providing solutions to the local economy
Science and Ag Teacher Education and Curriculum Development

Goals
- Equip students with relevant knowledge and skills on content and pedagogy
- Develop a responsive curriculum for socio-economic development
  - Effective teachers
  - Innovative and reflective teachers
  - A teacher who can facilitate learning
  - Teacher who is creative in resource mobilization and practicals

Needs
- Personnel with relevant experience in teacher education
- Relevant resources
- Supportive environment for learning
- Infrastructure conducive for teaching and learning
  - Content
  - Methodology
  - Principles of science learning and teaching
  - Research skills
  - Use of modern technology – ICT
  - Using indigenous knowledge
  - Skills for assessment learning
  - Appropriate pedagogy for handling large classes
  - Qualified teacher educators
  - Needs assessment for the status quo
  - Stakeholder participation

Challenges
- Institutional capacity
- Classroom space
- Limited funding
- Ineffective policy on PPP
  - Innovation in context
  - Resource constraints
  - Recruiting
  - Large classes
  - Political will

Ideas for Success
- Capacity building
- Pilot ideas at small scale
- Engaging both technical and policy personnel
- Using locally available indigenous technologies and the local environment
- Using nearby secondary schools for practicals
- Strong relationship between the colleges and teaching practice scholar
  - Effective policy on PPP
  - Resource mobilization
  - Collaboration
  - Creativity & Cost
  - Sharing
- Establishing satellite centers
- Adequate staff/HR
- Engage in innovative teaching
- Attachments