
BOOK REVIEWS


The purpose of the book is to provide guidelines to administrators and faculty for systemic change in undergraduate education in colleges of agriculture and natural resources to meet education needs in the 21st Century, an era of rapid change in agriculture. The book consists of two parts: 1) the framework, and 2) the focus on implementation and agenda for action in curricula and instruction change. Part I of the book represents a rework of H.O. Kunkel, I.L. Maw and C.L. Skaggs’ 1996 book, “Revolutionizing Higher Education in Agriculture: Framework for Change.” Part II of the book reflects chapters based on edited presentations of plenary speakers and focus group discussions at two workshops held in May 1997 at Texas A&M University and April 1998 at Cornell University. Speakers and participants were senior administrators and faculty from University of Connecticut, Alabama A&M, Cornell, Texas A&M, Rutgers, and Purdue universities.

Six chapters in Part I consist of theoretical and conceptual analyses of the issues, purpose and essence of higher education in agriculture and the process of systemic change. These chapters call for systemic change in undergraduate education in agriculture, not just incremental change. Colleges of agriculture must re-establish connectivity to rapidly changing society. Colleges must adapt to provide quality with limited resources and must put students first. The guiding principles for systemic change that are identified include:

1. Define agriculture broadly as a system based on stewardship, public health, and livelihood;
2. Develop a vision for the future about what our institutions should be and whom they should serve;
3. Collaborate with other units of the university in teaching and research;
4. Make undergraduate education a high priority among a limited number of departmental priorities;
5. Create diversity through active recruitment of urban, rural, and of non-traditional students;
6. Let academic need, not research needs, drive strategic planning;
7. Develop strategic partnerships for inter- and intra-institutional collaboration;
8. Develop programs which meet societal and constituent needs;
9. Build flexible curricula requiring both specialized and generalized knowledge;
10. Expand traditional production agriculture curricula with courses in liberal arts and environmental sciences reflecting the social and environmental dimensions of agriculture;
11. Incorporate values and the changing nature of values into the curricula;
12. Integrate the programs with contemporary issues;
13. Make teamwork and systems thinking a part of the intellectual framework of instruction;
14. Create cores of study—foundational, functional and integrative—with a liberal education;
15. Diminish redundancy and enhance connections among courses in the curriculum;
16. Teach students how to think, not what to think;
17. Use the best and most appropriate methods of teaching;
18. Create rewards for those who “do it.”

Nine chapters in Part II focus on implementation and agendas for action: 1) Responsibilities and expectations; 2) Conception and change; 3) Values; 4) Course construction; 5) Course content; 6) Faculty scholarship; 7) Classroom environment: Student participation; 8) Innovation and systems thinking; 9) Strategies for implementation.

The authors note that “the most important step in implementing the needed fundamental changes in higher education in agriculture and natural resources is to gain a perceptive understanding of the society and the industries for which our graduates must be readied.”

Successful undergraduate curricula and courses of the future must engage reality, rethink goals, values, and mission; recognize the high tech and global nature of agriculture; systematically engage administration, faculty and students; provide a climate for moral discussions and visions for the 21st century; design courses and curricula that are outcome, not content driven; provide opportunities for integrative and educational scholarship for students and faculty; engage students in participatory learning; and incorporate systems thinking into the education process.

The book is a “must read” for faculty and administrators in colleges of agriculture and natural resources concerned about education of undergraduates for the 21st Century. The authors and the editors have done an excellent job of presenting the case for change in education in colleges of agriculture and natural resources noting the need for flexible programs which create flexible graduates with the ability to adapt to a rapidly changing industry and where graduates recognize agriculture and natural resources as fields with opportunities and challenges beyond production.

The book provides a roadmap to a bright future for colleges of agriculture and natural resources in the 21st Century for those institutions with administrators and faculty who have the needed vision and commitment to engage in systemic change.

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