

Our Website (<http://www.alce.vt.edu>)

Overview

The Department of Agricultural, Leadership, and Community Education at Virginia Tech is committed to preparing students for success in professions that apply agricultural content to social settings. We offer a majors in Agricultural and Extension Education and Community Leadership and Development. Our minors include Leadership and Social Change and Teaching and Learning in Agriculture. Our students will experience an interdisciplinary program of study designed to address the growing needs of today's evolving agricultural and food systems. The Leadership and Social Change minor is for students planning to pursue careers in a variety of different fields including non-profit organizations, government governmental and non-governmental agencies, industry, and educational sectors. The minor for Teaching and Learning in Agriculture is a great opportunity to learn more about the practical skills of teaching agriculture to supplement your major. Throughout this minor's curriculum, you will examine educational practices and use them to learn applicable skills for your future career.

Agricultural and Extension Education Major (AEE)

The Agricultural and Extension Education major prepares individuals to excel in careers related to youth education in community programs, middle and high school agricultural education, and adult education.

Community Leadership and Development (CLD)

The Community Leadership and Development major is intended for students interested in bridging community-based education efforts with leadership development in agricultural contexts, including non-profit, government, commodities, and industry/corporate roles.

Degree Requirements

For additional information about both degrees, contact Courtney Collins, Academic Advisor and Program Coordinator, cswanson8@vt.edu, 540-231-3694.

Leadership and Social Change Minor (ILRM)

The Leadership and Social Change minor introduces students to the academic study of leadership and provides them with interdisciplinary skills to solve complex societal issues at the local, national, and international levels. While engaging in the study of leadership, students will also learn about the Social Change Model of Leadership Development created specifically for college students. This model helps students understand themselves (individual values), how to work with others (group values), and how to better serve their communities (society values). In this process, students will not only learn *about* leadership but will also answer the question: leadership *for what?*

For additional information about the minor, contact Dr. Austin Council at (540) 231-8188 or adc@vt.edu.

Teaching and Learning in Agriculture Minor (TLAG)

The minor for Teaching and Learning in Agriculture will capture the interest of individuals interested in learning how to apply practical educational pedagogy in diverse career settings across all areas of agriculture and life sciences. Completion of the minor will offer students job market opportunities beyond those specifically associated with their major.

For more information about the minor, contact Dr. Brett Milliken at (540) 231-1003 or bmilliken@vt.edu (<https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fvt-next.courseleaf.com%2Fcourseleaf%2Fbmilliken%40vt.edu&data=05%7C02%7Cmgread%40vt.edu%7Cbff0faeda90f6418c155708dc8729037d%7C6095688410ad40fa863d4f32c1e3a37a%7C0%7C0%7C638533857415616227%7CUnknown%7CTWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTlI6lk1haWw%7C0%7C0%7C%7C%7C&sdata=F8%2FPho6iQWjYRU3L2ctR1NHw6VFC3iryxN1Dmkf8ls%3D&reserved=0>).

Satisfactory Progress

Once students enrolled in the AEE or CLD major have attempted 72 hours (including transfer, advanced placement, advanced standing and credit by examination), "satisfactory progress" will consist of:

- GPA of at least 2.0
- at least 24 credits that apply to the Curriculum for Liberal Education, and
- at least 9 semester credits of departmental requirements.
- Agricultural and Extension Education Major (<https://catalog.vt.edu/undergraduate/agriculture-life-sciences/agricultural-leadership-community-education/agricultural-extension-education/>)
- Community Leadership and Development Major (<https://catalog.vt.edu/undergraduate/agriculture-life-sciences/agricultural-leadership-community-education/community-leadership-development/>)

Head: Tracy Rutherford

Professors: L. V. Crowder, E. K. Kaufman, K. L. Niewolny, R. D. Rudd, T. A. Rutherford, and D. M. Westfall-Rudd

Associate Professors: T. G. Archibald, C. R. Friedel, and H. H. Scherer

Assistant Professors: T. A. Drape, R. Nayak, J. Parrella, and H. M. Sunderman

Collegiate Faculty: A. D. Council, K. McCain, D. B. Milliken, and J. H. Walz

Instructor/Lecturer: S. C. Mariger and M. M. Seibel

Adjunct/Affiliate Faculty: S. J. Manchester, D. Odoom, J. Obeng-Baah, and R. J. Rateau

Adjunct Associate Professor: F. Shushok

Emeritus Faculty: S. R. Burke, W. G. Camp, J. R. Crunkilton, and J. H. Hillison

Undergraduate Program Director: D. M. Westfall-Rudd (540) 231-5717;
mooredm@vt.edu

Undergraduate Course Descriptions (ALCE)

ALCE 2094 - Introduction to Metal Fabrication (1 credit)

Introduction to metal working tools, equipment/operation and safety practices. Including the fundamentals of Oxy-Acetylene (OA) gas welding, Shielded Metal Arc Welding (SMAW) and Gas Metal Arc Welding (GMAW).

Instructional Contact Hours: (3 Lab, 1 Crd)

ALCE 2294 - Animal Structures and Environment (3 credits)

Functional considerations in facilities development for production agriculture. Concepts of farmstead planning and system development. Techniques for providing safe and efficient animal production environments, especially for confinement facilities.

Instructional Contact Hours: (3 Lec, 3 Crd)

ALCE 2414 - Identity and Inclusion in Agricultural and Life Sciences (3 credits)

Examines histories of persons representing different social identities, statuses, space, place, and traditions in agricultural and life sciences. Explores how differences influence experiences individuals may have in agricultural and life sciences. Apply ethical reasoning practices to recognize and addresses critical issues surrounding inclusion of diverse populations within agricultural and life sciences education and leadership.

Prerequisite(s): ENGL 1106

Pathway Concept Area(s): 1A Discourse Advanced, 7 Identity & Equity in U.S., 10 Ethical Reasoning

Instructional Contact Hours: (3 Lec, 3 Crd)

Course Crosslist: NDIG 2414

ALCE 2484 - Engine and Power Train Technology (3 credits)

Engine and power train technology with an emphasis on the fundamentals of internal combustion engines, electrical systems, power transmission systems and maintenance practices.

Instructional Contact Hours: (2 Lec, 3 Lab, 3 Crd)

ALCE 2964 - Field Study (1-19 credits)

Instructional Contact Hours: Variable credit course

ALCE 2974 - Independent Study (1-19 credits)

Instructional Contact Hours: Variable credit course

ALCE 2984 - Special Study (1-19 credits)

Instructional Contact Hours: Variable credit course

ALCE 3004 - Educational Programs in Agricultural and Life Sciences (3 credits)

Offers a foundation for student engagement and exploration of educational programs within agricultural and life sciences. Formal and non-formal learning contexts in local community programs. Opportunities include fieldwork assignments.

Instructional Contact Hours: (3 Lec, 3 Crd)

ALCE 3014 - Leadership Effectiveness for Professionals in Agricultural Organizations (3 credits)

Leadership theory and skills required to perform effectively in leadership positions within agricultural organizations and communities. Leadership skills, personal development, teamwork, and social responsibility in agriculture industry.

Prerequisite(s): LDRS 1015 or LDRS 1414

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 11 Intercultural&Global Aware.

Instructional Contact Hours: (3 Lec, 3 Crd)

ALCE 3084 - Agricultural Metal Fabrication (3 credits)

Introduction to metal working tools, equipment, and processes. Fundamentals of hot and cold metal working, plumbing, and welding applications, including inert gas welding processes. Junior standing or consent of instructor is required.

Instructional Contact Hours: (1 Lec, 6 Lab, 3 Crd)

ALCE 3494 - Advanced Welding Technology (1 credit)

Techniques in metal work and welding that include tool maintenance, Oxy-Acetylene (OA), Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Gas Tungsten Arc Welding (GTAW). Design of welded structures, fundamentals of heat treatment, plastic welding and Plasma Arc Cutting (PAC). Pre: Junior standing.

Instructional Contact Hours: (3 Lab, 1 Crd)

ALCE 3624 - Communicating Ag and Life Sciences in Writing (3 credits)

Communication skills necessary to carry out work with the general public and audiences in the food, agriculture, and natural resources fields. Professional writing for diverse audiences, assessing best written communication practices, and on creation of a portfolio, utilizing multiple platforms of written communication. Pre: Junior standing.

Prerequisite(s): ENGL 1106

Pathway Concept Area(s): 1A Discourse Advanced, 11 Intercultural&Global Aware.

Instructional Contact Hours: (3 Lec, 3 Crd)

ALCE 3634 - Communicating Ag and Life Sciences in Speaking (3 credits)

Strategies and techniques for effective oral communication in professions related to food, agriculture, and natural resources. Oral, visual, and interpersonal communication, ethical framing of complex problems, group leadership, and meeting management.

Prerequisite(s): ENGL 1106

Pathway Concept Area(s): 1A Discourse Advanced, 10 Ethical Reasoning

Instructional Contact Hours: (3 Lec, 3 Crd)

ALCE 3814 - Life Sciences Communication & Public Engagement (3 credits)

Identifying principles of inclusive and culturally responsive public engagement. Creating life sciences communication strategies and community-centered approaches that maximize public engagement. Evaluating effects of life sciences communication strategies on public engagement.

Instructional Contact Hours: (3 Lec, 3 Crd)

ALCE 3900 - Bridge Experience (0 credits)

Application of academic knowledge and skills to in a work-based experience aligned with post-graduation goals using research-based learning processes. Satisfactory completion of work-based experience often in the form of internship, undergraduate research, co-op, or study abroad; self-evaluation; reflection; and showcase of learning. Pre: Departmental approval of 3900 plan.

Instructional Contact Hours: (0 Crd)

ALCE 3954 - Study Abroad (1-19 credits)

Instructional Contact Hours: Variable credit course

ALCE 4004 - Teaching Adults in Agriculture (2 credits)

Organizing classes, developing programs of instruction and teaching techniques applicable to out-of-school groups in Agriculture.

Instructional Contact Hours: (2 Lec, 2 Crd)

ALCE 4014 - Introduction to Cooperative Extension (3 credits)

An overview of the Cooperative Extension Service as it applies to non-formal education for citizens and communities. Major areas discussed include history, organization, functional areas, responsibilities of local agents, employment in extension, and educational program planning.

Instructional Contact Hours: (3 Lec, 3 Crd)

ALCE 4024 - Managing Agricultural Supervised Occupational Experience Project (2 credits)

Major emphasis will be given to the agricultural teachers responsibility for supervision of the Supervised Occupational Experience Program (SOEP). The course will emphasize the ownership project, the cooperative placement project, maintaining record books, and supervising the SOEP.

Instructional Contact Hours: (2 Lec, 2 Crd)

ALCE 4034 - Methods of Planning Education Programs for Agriculture (3 credits)

Course examines the procedures involved in the development of courses, curriculum, and instructional materials for education programs in agriculture.

Prerequisite(s): ALCE 3004

Instructional Contact Hours: (2 Lec, 3 Lab, 3 Crd)

Course Crosslist: EDCT 4034

ALCE 4044 - Agricultural Sciences Seminar (3 credits)

A senior capstone course addressing issues of importance for majors in Agricultural Sciences. The course will emphasize a synthesis of research results from collected data and information on contemporary problems in agriculture and related fields and a sharing of the results. It will emphasize the development of skills in critical analysis. Senior Standing required.

Instructional Contact Hours: (3 Lec, 3 Crd)

ALCE 4054 - Internship in Coop Extension (1-16 credits)

Off-campus participation experience for those preparing to become extension agents in the Cooperative Extension Service. Variable Credit; 6-16 credits.

Instructional Contact Hours: (1-16 Lec, 1-16 Crd)

ALCE 4064 - Ag Mechanical Lab Management (3 credits)

Plan, organize, and manage secondary school mechanics laboratories. Management of the instructional program, facility, equipment, inventory, safety, liability, personnel, material control, and student customer work.

Instructional Contact Hours: (2 Lec, 3 Lab, 3 Crd)

ALCE 4234 - Curriculum for Career and Occupational Education (3 credits)

Provides current and prospective career and occupational education teachers with research bases, resources, and available curricula for teaching content in the respective disciplines. Develops the ability to plan, manage, develop, and evaluate curricula. The prerequisite EDCT 2604 will be waived for Agricultural Education students. Pre: Junior Standing

Prerequisite(s): EDCT 2604

Instructional Contact Hours: (3 Lec, 3 Crd)

ALCE 4244 - Teaching and Training Methods in Agricultural and Life Sciences (3 credits)

Survey of strategies for design, implementation, and evaluation of instruction and training practices in agricultural life sciences. Applications of principles in formal and non-formal educational settings, including schools, extension, and industry. Pre: Junior standing

Instructional Contact Hours: (3 Lec, 3 Crd)

ALCE 4254 - Adult Vocational&Technical Ed (3 credits)

Theory, practices, and procedures involved in planning, developing, implementing, managing, and evaluating adult education programs in Vocational and Technical Education. Completion of, or concurrent enrollment in, courses in teaching methods and curriculum required.

Instructional Contact Hours: (3 Lec, 3 Crd)

ALCE 4304 - Community Education and Development (3 credits)

Comprehensive examination of community education and development. Community/sustainable community development, strategies for mobilizing social change in/with communities. Explore participatory, popular, and community-based education from rural and urban settings. Globalization, sustainability, and social movement discourse with emphasis on agricultural, health, and food system examples. Pre: Junior standing.

Instructional Contact Hours: (3 Lec, 3 Crd)

ALCE 4744 - Methods, Materials and Practices in Instruction (1-6 credits)

Planning, using, evaluating classroom procedures; selection and organization of subject content and materials in vocational and technical education. Maximum credit: 6 Consent required.

Corequisite(s): EDCT 4754

Instructional Contact Hours: (1-6 Lec, 1-6 Crd)

ALCE 4754 - Internship in Education (1-16 credits)

Planned program of clinical practice in education under the direction and supervision of a university supervisor and a selected practitioner. Recommendation of program area and successful completion of Professional Studies required.

Instructional Contact Hours: (1-16 Lec, 1-16 Crd)

ALCE 4884 - Youth Program Management (3 credits)

Organizational design of educational youth programs such as 4-H and FFA, including administrative planning, human resource development, recruitment, marketing, and budgeting.

Instructional Contact Hours: (3 Lec, 3 Crd)

Course Crosslist: EDCT 4884

ALCE 4964 - Field Study/Practicum (1-19 credits)

Instructional Contact Hours: Variable credit course

ALCE 4974 - Independent Study (1-19 credits)

Instructional Contact Hours: Variable credit course

ALCE 4984 - Special Study (1-19 credits)

Instructional Contact Hours: Variable credit course

ALCE 4994 - Undergraduate Research (1-19 credits)

Instructional Contact Hours: Variable credit course

Undergraduate Course Descriptions (LDRS)

LDRS 1414 - Citizen Leadership (3 credits)

Language, theories, concepts, and competencies associated with practicing effective leadership and social change and developing intercultural and global awareness.

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 11 Intercultural&Global Aware.

Instructional Contact Hours: (3 Lec, 3 Crd)

LDRS 1424 - Citizen Leadership Praxis (3 credits)

Application of foundational knowledge of leadership, intercultural and global awareness, the social change model, and socially responsible leadership concepts toward a service-learning project.

Prerequisite(s): LDRS 1414

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 11 Intercultural&Global Aware.

Instructional Contact Hours: (2 Lec, 3 Lab, 3 Crd)

LDRS 2014 - Principles of Peer Leadership (3 credits)

Theories and basic principles associated with being a positive influence on fellow students, identification of contemporary college student issues, leadership skills utilized to motivate peers in teamwork-based scenarios, leadership skills associated with human development, ethics, maintaining community, and conflict in decision making. May be repeated once for a maximum of 6 credits.

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 11 Intercultural&Global Aware.

Instructional Contact Hours: (3 Lec, 3 Crd)

Repeatability: up to 6 credit hours

LDRS 2964 - Field Study (1-19 credits)

May be repeated for a maximum of 6 credits.

Instructional Contact Hours: Variable credit course

Repeatability: up to 6 credit hours

LDRS 2974 - Independent Study (1-19 credits)

Instructional Contact Hours: Variable credit course

LDRS 2984 - Special Study (1-19 credits)

Instructional Contact Hours: Variable credit course

LDRS 3104 - The Dynamics of Leadership (3 credits)

This course examines advanced leadership theories and leadership effectiveness in today's organizations.

Prerequisite(s): LDRS 1015 or LDRS 1414

Instructional Contact Hours: (3 Lec, 3 Crd)

LDRS 3304 - Elements of Team Leadership (3 credits)

Develop effectiveness in leading, delegating, and communicating within a team environment. Emphasis on motivation of team members, emotional intelligence, ethical issues, team member dynamics, team management, and effective team processes.

Prerequisite(s): LDRS 1015 or LDRS 1414

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 10 Ethical Reasoning

Instructional Contact Hours: (3 Lec, 3 Crd)

LDRS 3954 - Study Abroad (1-19 credits)

Instructional Contact Hours: Variable credit course

LDRS 3984 - Special Study (1-19 credits)

Instructional Contact Hours: Variable credit course

LDRS 4044 - Leadership Studies Capstone (1 credit)

Culmination of comprehensive knowledge gained about leadership and social change throughout a student's undergraduate career. Involves reflection on collegiate leadership experiences and coursework in the leadership and social change minor. Results in student development of an electronic portfolio (i.e., ePortfolio). Pre: Senior standing.

Prerequisite(s): LDRS 1015 or LDRS 1414

Instructional Contact Hours: (1 Lec, 1 Crd)

LDRS 4414 - Leading with Humility (1 credit)

Teaches nature and origins of humility, traditional and modern understandings, connections to modern leadership theories/frameworks, application of humility to three dimensions: personal, relational, and community/cultural dimensions. Pre: Sophomore Standing

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 10 Ethical Reasoning

Instructional Contact Hours: (1 Lec, 1 Crd)

LDRS 4454 - Toxic Leadership (3 credits)

Toxic leadership, impacts and outcomes on leaders, followers, and the organizational environment. Apply problem-based learning through case study analysis, critical thinking and decision-making, and cooperative methods mitigating toxic leadership actions. Explore ethical-based leadership principles. Pre: Sophomore standing.

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 10 Ethical Reasoning

Instructional Contact Hours: (3 Lec, 3 Crd)

LDRS 4514 - Skills for Nonprofit Organizational Leaders (3 credits)

Skills essential for leading nonprofit organizations. Nonprofit sector, governance, fundraising, financial administration, managing personnel, media communications, strategic planning, and leadership skills. Pre: Junior Standing.

Prerequisite(s): LDRS 1414

Instructional Contact Hours: (3 Lec, 3 Crd)

LDRS 4754 - Internship (1-19 credits)

Instructional Contact Hours: Variable credit course

LDRS 4964 - Field Study (1-19 credits)

May be repeated for a maximum of 6 credits.

Instructional Contact Hours: Variable credit course

Repeatability: up to 6 credit hours

LDRS 4974 - Independent Study (1-19 credits)

Instructional Contact Hours: Variable credit course

LDRS 4984 - Special Study (1-19 credits)

Instructional Contact Hours: Variable credit course

LDRS 4994 - Undergraduate Research (1-19 credits)

Honors

Instructional Contact Hours: Variable credit course

LDRS 4994H - Undergraduate Research (1-19 credits)

Honors

Instructional Contact Hours: Variable credit course