College	Department	Program Title	Brief Description	Link
			Maryland 4-H aspires to be a recognized leading youth	
			development program that inspires youth and adults to	
			learn, grow and work together as catalyst for positive	
			change. Program areas include: Animal Science,	
			Citizenship & Leadership, Engineering Technology,	
			Environmental Science, Healthy Living, Inernational	
			Programs, Volunteerism, 4-H Outreach, and 4-H Military	
Agriculture & Natural Resources	UMD Extension	4-H	Programs.	https://extension.umd.edu/4-h
			The Agriculture Marketing Program's mission is to assist	
			individuals with marketing plans, develop profitable,	
			sustainable marketing opportunities, and work in	
			coordination with other supporting agencies to enhance	
Agriculture & Natural Resources	UMD Extension	Ag Marketing	Maryland's agricultural economy.	https://extension.umd.edu/agmarketing
			University of Maryland's Agriculture Law Education	
			Initiative (ALEI) provides both formal and informal	
			education by creating educational resources in an effort	
			to preserve and strengthen Maryland's agricultural	
			industry. Farmer education and student	
			engagement are key elements of the ALEI program. The	
			legal specialists create and lead education programs for	
Agriculture & Natural Resources	UMD Extension	Agricultural Law	farmers throughout the state on a variety of topics.	http://umaglaw.org/
			The Agricultural Nutrient Management Program, which	
			is funded by the Maryland Department of Agriculture	
			(MDA), provides the following services: nutrient	
			management plan development for Maryland farmers	
			through a network of nutrient management advisors	
			located in all 23 county Extension offices; and	
			continuing education and technical support for certified	
			nutrient management consultants and certified farm	
			operators via nutrient management specialists located	
Agriculture & Natural Resources	UMD Extension	Agricultural Nutrient Management Program	on the UMCP campus.	https://extension.umd.edu/anmp
			AGsploration: The Science of Maryland Agriculture is a	
			statewide curriculum designed to increase middle	
			school student agriculture literacy and STEM (science,	
			technology, engineering, and math) skills. Topics include	
			production agriculture, environmental science, and	
			nutrition. More than 400 teachers have been trained to	
			utilize the curriculum. In 2016 the AGsploration team is	
			focusing on final edits to the curriculum and continued	
Agriculture & Natural Resources	UMD Extension	Agsploration: The Science of Maryland Agriculture	expansion of digital learning resources.	https://extension.umd.edu/agsploration

College	Department	Program Title	Brief Description	Link
			MidAtlantic Women In Agriculture has proudly offered	
			Annie's Project to the region since 2008! Annie's Project	
			is designed to empower women in agriculture to	
			develop networks and skills key to making successful	
			business partners. Through the courses, women in	
			agriculture find answers, strength, friendship, and grow	
Agriculture & Natural Resources	UMD Extension	Annie's Project: Empowering Women in Agriculture	in confidence, business skills, and community prestige.	https://extension.umd.edu/annies-project
			The Oyster Aquaculture and Education Program	
			provides programs and materials to watermen and	
			others to develop profitable shellfish aquaculture	
			businesses. The goal is to rebuild the shellfish industry,	
			provide employment and aid in restoring the bivalve	
Agriculture & Natural Resources	UMD Extension	Oyster Aquaculture Education & Training Program	populations important to our bays.	https://extension.umd.edu/aquaculture
			The Maryland Beginning Farmer Success Project	
			provides new farmers with resources, training and	
			contacts to be able to exploreenterprise	
			options, refine ideas, develop plans and strategies,	
Agriculture & Natural Resources	UMD Extension	Beginning Farmer Success	and implement their farming practice.	https://extension.umd.edu/newfarmer
			Breakfast on the Farm is an effort to show those who	
			may have never visited a farm how food gets from the	
			farm to the table. "We invite the public to attend this	
			event and meet a three generation farm family who	
			strives to produce safe, wholesome food for Maryland	
			communities" said Dr. Bob Peters, University of	
Agriculture & Natural Resources	UMD Extension	Breakfast on the Farm	Maryland Professor and Extension Dairy Specialist.	https://extension.umd.edu/breakfast-on-the-farm
			The Expanded Food and Nutrition Education Program	
			(EFNEP) focuses on diet quality, nutrition, cost savings,	
			and food safety. EFNEP educators teach program	
			participants new knowledge and skills, including how	
			to: Choose nutritious snacks/beverages for children;	
			Plan and prepare healthy meals; Handle and store foods	
			safely; Prepare new foods and recipes; Compare prices	
			and save on their food bill; Become physically active;	
Agriculture & Natural Resources	UMD Extension	Expanded Food and Nutrition Education Program	Lose weight sensibly.	https://extension.umd.edu/efnep
			The objective of Farm Management Extension programs	
			is to help Maryland farmers improve their business	
			management skills to improve management	
			productivity, increase profitability, and fulfill their long-	
Agriculture & Natural Resources	UMD Extension	Farm Management	term goals.	https://extension.umd.edu/farmmanagement

College	Department	Program Title	Brief Description	Link
			University of Maryland Extension provides basic	
			financial education for young people and adults through	
			research-based programs, often in collaboration with	
Agriculture & Natural Resources	UMD Extension	Financial Education Programs	non-profits and community organizations.	https://extension.umd.edu/money
			Food preservation is a reemerging skill in Maryland.	
			Canning classes are being taught by trained educators.	
Agriculture & Natural Resources	UMD Extension	Food Preservation and Safety	Classes are for beginners and veterans alike.	https://extension.umd.edu/foodpreservation
			Maryland's Food Supplement Nutrition Education	
			(FSNE) offers nutrition education programs in five	
			initiative areas: Farm to Family Initiative; Healthy	
			Changes for Out of School Youth; Healthy School	
			Communities; Healthy Tots, Healthy Families; Securing	
Agriculture & Natural Resources	UMD Extension	Food Supplement Nutrition Education	Food Resources for Families.	https://extension.umd.edu/fsne
			This non-credit course is designed for individuals	
			wishing to increase their understanding of forests and	
			forest management. Specifically, the General Forestry	
			Course targets Maryland forest landowners and other	
Agriculture & Netural Descures	UMD Extension	Conoral Forestry Course	citizens with an interest in the principles and practices	https://extension.umd.edu/forestry-course
Agriculture & Natural Resources	OND Extension	General Forestry Course	of forestry. Farmers and Producers can receive detailed advice on	https://extension.unu.edu/forestry-course
			submitting applications to the USDA Sustainable	
			Agriculture Research and Education (SARE) Farmer	
Agriculture & Natural Resources	UMD Extension	Grant Writing Assistance Program for Agriculture	Grant program.	https://extension.umd.edu/grants
			An Extension Specialist in Viticulture and Small Fruit (Dr.	
			Fiola) works with existing vineyard and winery owners	
			to increase production and improve quality. He is	
			working to expand the industry in Maryland by	
			educating new vineyard owners. Resources include A	
			Sustainable Practices Work Book for Wine Grape	
Agriculture & Natural Resources	UMD Extension	Grapes and Fruit	Growing in Maryland.	https://extension.umd.edu/smallfruit
			The Grow It Eat It (GIEI) Program is a subset of the UME	
			Master Gardener program that was launched in 2009 to	
			teach Marylanders how to grow food in home,	
			community, and school gardens. Over the past eight	
			years, Master Gardeners (MGs) have taught hundreds of	
			classes, developed demonstration gardens, and helped	
			thousands of individuals and groups start their own	
Agriculture & Natural Resources	UMD Extension	Grow It Eat It	food gardens.	https://extension.umd.edu/growit

UMD Continuing Education Programs

College	Department	Program Title	Brief Description	Link
			UME's Healthy and Safe Environments Action Team	
			offers a variety of classes, workshops, and trainings to	
			reach specific audiences including youth and the general	
			public, health professionals and caseworkers, and day	
			care providers. Participants learn how to make homes,	
Agriculture & Natural Resources	UMD Extension	Healthy & Safe Environments	schools and work places safer and healthier.	https://extension.umd.edu/healthy-environments
			Vision:People gardening and managing land in harmony	
			with nature. Mission: Develop and deliver science-	
			based, sustainable gardening and integrated pest	
			management education for better human and	
Agriculture & Natural Resources	UMD Extension	Home & Garden Information Center	environmental health.	https://extension.umd.edu/hgic
			The Smart Choice Health Insurance [™] and Smart Use	
			Health Insurance [™] program consists of five	
			multidisciplinary modules that provide health insurance	
			literacy education to assist adults in exploring the	
			information they need to build their knowledge, skills	
			and confidence to choose and use their health insurance	
Agriculture & Natural Resources	UMD Extension	Insuring Your Health	wisely.	https://extension.umd.edu/insure
			LEAD Maryland Foundation, Inc. is dedicated to	
			identifying and developing leadership to serve	
			agriculture, natural resources, and rural communities.	
			The LEAD Fellowship curriculum focuses on providing	
			public issues education, skills building, leadership	
			development, and personal growth. Through program	
			participation, Fellows become more equipped to solve	
			problems, identify resources, engage and educate	
Agriculture & Natural Resources	UMD Extension	LEAD Maryland	others, lead communities, and to shape public policy.	https://extension.umd.edu/lead-maryland
			Multiple events are held throughout the spring,	
			summer, and fall to address issues of pasture	
			management like rotational grazing, weed control,	
			renovating poor performing pasture, and more. The	
			Equine Rotational Grazing Demonstration Farm is part	
			of the Central Maryland Research and Educational	
			Center in Clarksville, Maryland. The site was developed	
			to educate equine farm operators how to better	
			manage their pastures to benefit horses and the	
Agriculture & Natural Resources	UMD Extension	Maryland Horses	environment.	https://extension.umd.edu/horses/our-programs

College	Department	Program Title	Brief Description	Link
			Our goal is to help Maryland's poultry industry and	
			growers both large and small with general practical	
			knowledge about poultry production practices in order	
			to continue to develop, maintain, and operate	
			economically viable and environmentally responsible	
Agriculture & Natural Resources	UMD Extension	Maryland Poultry	poultry operations in the state.	https://extension.umd.edu/poultry
			It is the goal of University of Maryland's Vegetable IPM	
			Specialist to provide professionals, growers and citizens	
			of Maryland in particular and the Mid-Atlantic in general	
			practical knowledge about vegetable production	
			practices for the purpose of sustaining the environment,	
			enhancing economic vitality, and improving the quality	
Agriculture & Natural Resources	UMD Extension	Maryland Vegetables	of life of individuals and their communities.	https://extension.umd.edu/mdvegetables
			This conference provides a multi-disciplinary and	
			ecological view of health and wellness research, practice	
			and outreach education. The conference offers a	
			combination of workshops, seminars, research updates,	
			theoretical perspectives, and thought-provoking	
			dialogue to fully engage participants in the dynamic and	
			complex world of health. Using the Social Ecological	
			Model as a framework, the conference tracks offer	
			opportunities for participants to gain new perspectives	
			on the multifaceted nature of our society, and how each	
Agriculture & Natural Resources	UMD Extension	National Health Outreach Conference	sector influences health.	https://extension.umd.edu/nhoc
			The Personal Finance Seminar for Professionals is	
			designed for personal finance professionals from public,	
			private, and not-for-profit organizations, including all	
			branches of the military. Participants learn about	
			today's most critical financial issues and how to turn	
			information into consumer knowledge and action.	
			Sessions are held on topics such as Financial Planning &	
			the Latest Trends, The Growing Racial Wealth Divide,	
Agriculture & Natural Resources	UMD Extension	Personal Finance Seminar	and For-profit Higher Education in the United States.	http://extension.umd.edu/pfs

College	Department	Program Title	Brief Description	Link
			Maryland Sea Grant College draws on the talent and	
			expertise of the state's universities and academic	
			laboratories to foster innovative marine research,	
			education, and outreach. In this way Maryland Sea	
			Grant serves as a bridge between academic expertise	
			and the needs of those who manage, conserve, enjoy,	
			or make their living from the Chesapeake Bay. Graduate	
			fellows work directly with Sea Grant-funded	
			researchers, and sponsor undergraduate summer	
			students in a Research Experiences for Undergraduates	
			program. Through an Aquaculture-in-Action curriculum,	
			online interactive lessons, and science fellowships for	
			teachers, Sea Grant has helped raise the bar on	
Agriculture & Natural Resources	UMD Extension	Maryland Sea Grant College	environmental science education.	http://extension.umd.edu/seagrant
			UMD Extension offers educational programs for sheep	
			and goat producers in Maryland. Some of the programs	
			include The Junior Sheep & Goat Skillathon for youth to	
			gain and demonstrate knowledge in livestock,	
			Integrated Pest Management/FAMACHA workshops,	
			and Webinar short courses held every winter and cover	
Agriculture & Natural Resources	UMD Extension	Sheep and Goat Program	various aspects of sheep and goat production.	http://extension.umd.edu/sheep-goats
			After an in-depth needs analysis, Soil Health was chosen	
			as the focal topic for a new three-year professional	
			development program for Ag Service Providers,	
			sponsored by USDA Sustainable Agriculture Research	
			and Education (SARE) and University of Maryland	
			Extension. Various educational events and workshops	
Agriculture & Natural Resources	UMD Extension	Soil Health	are held throughout the year.	http://extension.umd.edu/soil-health
			Within the Watershed Protection and Restoration	
			Program, the Watershed Stewards Academy is a training	
			program to empower residents to improve the water	
			quality of local streams. The Academy provides	
			Stewards with knowledge and expertise from lecturers,	
			training in using watershed assessment tools for	
			analyzing stormwater runoff, and hands-on experience	
			leading stormwater management and behavior change	
			projects. A consortium of experienced stormwater	
			management practitioners provides Stewards with on-	
			going support for their community projects. Stewards	
			become community leaders in reducing harmful effects	
Agriculture & Natural Resources	UMD Extension	Watershed Protection and Restoration Program	of polluted stormwater running off into our streams.	http://extension.umd.edu/watershed/watershed-stewards-academy

College	Department	Program Title	Brief Description	Link
			The University of Maryland Extension's Well Water and	
			Septic Homeowner Education Project provides seminars	
			to help marylanders maintain the operations of their	
			septic systems and provide safe drinking water to their	
			families. Seminars include the Keep Your Water Well	
Agriculture & Natural Resources	UMD Extension	Well Water and Septic Systems	Seminar and the Septic System 101 Seminar.	http://extension.umd.edu/well-and-septic
			MidAtlantic Women in Agriculture is dedicated to	
			providing knowledge and resources to women who	
			share a passion for agriculture. Women in Agriculture	
			hosts an annual conference to educate, engage and	
			empower women, offers webinars on various topics,	
			and runs Annie's Project, a program to enducate,	
Agriculture & Natural Resources	UMD Extension	Women in Agriculture	connect and empower women in agriculture.	http://extension.umd.edu/womeninag
			The Woodland Stewardship Education (WSE) program	
			helps connect woodland property owners to their land.	
			Through a variety of Extension offerings, WSE brings	
			together professionals from such fields as forestry,	
			wildlife ecology, and natural resource management to	
			enable woodland property owners to make sound and	
Agriculture & Natural Resources	UMD Extension	Wooland Stewardship Education	informed decisions about managing their land.	http://extension.umd.edu/woodland
			The Institute of Applied Agriculture offers a Continuing	
			Education option that allows individuals not enrolled at	
			the University of Maryland to take select IAA courses	
			without completing an entire Certificate in Applied	
			Agriculture for credit. Courses are in areas of study such	
			as Sustainable Agriculture, Landscape Management,	
			Ornamental Horticulture and Agricultural Leadership	
Agriculture & Natural Resources	Institute of Applied Agriculture	Academic Courses	and Communication.	http://iaa.umd.edu/areas-study/continuing-education
			This 15-week noncredit workshop provides an overview	
			of pesticide use and safety. Topics include	
			environmental protection, labeling, personal safety, first	
			aid, formulation and chemistry, equipment, disposal,	
Agriculture & Natural Resources	Institute of Applied Agriculture	Pesticide Use and Safety	storage, record-keeping, and liability.	http://iaa.umd.edu/
			In this 15-week noncredit workshop, emphasis is placed	
			on turfgrass growth and development, turfgrass use and	
			adaptability, and turfgrass pests. Major weed, insect,	
			and disease pests in Maryland will be discussed. Primary	
	_	_	cultural practices including fertilization, mowing, and	
Agriculture & Natural Resources	Institute of Applied Agriculture	Turfgrass Management	irrigation will also be covered.	http://iaa.umd.edu/

UMD Continuing Education Programs

College	Department	Program Title	Brief Description	Link
			This 15-week noncredit workshop covers the major	
			insect pests and beneficial insects of ornamental plants	
			and turfgrasses in the Mid-Atlantic region. The student	
			will be responsible for insect identification, life history,	
Agriculture & Natural Resources	Institute of Applied Agriculture	Insects of Ornamentals and Turfgrass	and control practices of approximately 100 insects.	http://iaa.umd.edu/
			The presence of unwanted plants or weeds in a lawn or	
			sports turf is one of the most noticeable pests of turf	
			stands. This module covers four main areas of turfgrass	
			weed control. The first area provides an overview of	
			why some plants are classified as weeds, herbicide	
			terminology, and cultural programs used for reducing	
			weed problems in lawn and sports turf. Annual grass	
			control for such weeds as crabgrass and goosegrass	
			using both preemergence and postemergence	
			herbicides will be the second area of discussion and is	
			geared to the Mid-Atlantic region. Broadleaf weed	
			control is the third area of concentration and will cover	
			the major types of postemergence herbicides and	
			optimal conditions for their use. The final topic is on	
			perennial grass and nutsedge control products and	
			programs. Both selective and nonselective herbicides	
Agriculture & Natural Resources	Institute of Applied Agriculture	Turfgrass Weed Control Module	will be covered within this section	http://iaa.umd.edu/
			Though many insects are beneficial there are a few that	
			can cause extensive damage to turfgrasses. This module	
			covers the major insect pests of turf within the Mid-	
			Atlantic region. Identification of white grubs such as	
			Japanese beetle, masked chafers, and June beetles will	
			be covered. Also damage symptoms and control	
			programs for this group of insect pests will be reviewed.	
			Other damaging insects covered in this module are	
			billbugs, chinch bugs, and sod webworms. Principles of	
			integrated pest management will be emphasized when	
Agriculture & Natural Resources	Institute of Applied Agriculture	Turfgrass Insect Control Module	assessing control options for insect pests.	http://iaa.umd.edu/

College	Department	Program Title	Brief Description	Link
			Nitrogen is considered one of the most important	
			nutrients in determining turfgrass quality and is a	
			cornerstone of turfgrass fertilization programs. However	
			concerns over the role of excessive nitrogen levels on	
			environmental and plant quality need to be addressed.	
			This module looks at the different types of nitrogen	
			fertilizers used for turfgrasses and covers the basic	
			principles of nitrogen fertility. A key concept of how	
			nitrogen becomes available for plant uptake and the	
			advantages and disadvantages of different nitrogen	
Agriculture & Natural Resources	Institute of Applied Agriculture	Nitrogen Fertilization Module	fertilizers is thoroughly covered in this module.	http://iaa.umd.edu/
			Turfgrasses, because of their growth characteristics,	
			have the ability to withstand traffic and mowing thus	
			allowing a range of uses from lawn to sports field	
			applications. Turfgrass managers must understand how	
			turfgrasses respond to environmental and management	
			inputs regarding growth and development. This module	
			will cover the many different facets of plant growth	
			from photosynthetic to respiratory activities to the	
			major growth areas of a turfgrass plant. The importance	
			of root growth, tillering, and inflorescence development	
Agriculture & Natural Resources	Institute of Applied Agriculture	Turfgrass Growth and Development Module	will be discussed in this module.	http://iaa.umd.edu/
			Selecting turfgrass species and cultivars that are best	
			adapted to known environmental conditions and	
			management inputs is a critical component of best	
			management practices and also implementing sound	
			integrated pest management programs. This module	
			will look at different groups of turfgrasses such as are	
			warm season and cool season turfgrasses and how they	
			are best suited for lawn and sports field applications.	
			Criteria such as shade tolerance, wear tolerance, heat,	
			and drought tolerance are various environmental	
			factors that must be considered when selecting	
			turfgrass species and cultivars. This module also covers	
			management inputs such as mowing height, fertility,	
			and irrigation requirements for different turfgrass	
Agriculture & Natural Resources	Institute of Applied Agriculture	Turfgrass Species Selection Module	species.	http://iaa.umd.edu/

College	Department	Program Title	Brief Description	Link
			The ability of turfgrasses to absorb nutrients and water	
			are critical components in maintaining active and	
			healthy plant growth. As a turfgrass manager knowledge	
			of different soil characteristics such as texture, porosity,	
			and nutrient retention are critical in implementing	
			proper fertility and irrigation programs. This module will	
			cover topics such as biotic factors that influence soil	
			health, the influence of soil pH on nutrient availability,	
			and how soil porosity affects soil water movement and	
			plant water uptake. Additional areas in this module look	
			at the impact of wear and compaction on plant growth,	
			the role of organic matter on a soils productivity, and	
Agriculture & Natural Resources	Institute of Applied Agriculture	Turfgrass Soils Module	how soil chemistry affects nutrient availability.	http://iaa.umd.edu/
			How do turfgrasses survive drought conditions? How do	
			turfgrasses survive freezing temperatures? This module	
			will cover these topics and management steps to better	
			allow turfgrasses to adapt to these stress situations. The	
			importance of light quality and intensity are also	
			reviewed as is heat stress and heat adaptation.	
			Management practices such as adjusting mowing	
			heights or nitrogen fertility that provide a more	
			favorable plant response to these conditions are	
Agriculture & Natural Resources	Institute of Applied Agriculture	Turfgrass Adaptation to Environmental Conditions	discussed in detail in this module.	http://iaa.umd.edu/
			Four hours per week of guided garden work, open to	
			the campus community. Lessons and activities vary,	
			including soil preparation, planting, watering, weeding,	
Agriculture & Natural Resources	Institute of Applied Agriculture	UMD Community Learning Garden Work Hours	harvesting, and pest control.	http://iaa.umd.edu/
			One-day course in the art and science of keeping honey	
			bees as a hobby or for profit. Students study honey bee	
			history, biology, anatomy, nutrition, and management,	
Agriculture & Natural Resources	Institute of Applied Agriculture	Introduction to Beekeeping	as well as visit an active apiary on campus.	http://iaa.umd.edu/
			A three-hour workshop at Terp Farm about spring	
			vegetable seedling propagation including soil building,	
Agriculture & Natural Resources	Institute of Applied Agriculture	Vegetable Seedling Production Workshop	tray seeding, and greenhouse management.	http://iaa.umd.edu/
			Terp Farm hosted a three-hour Chesapeake CRAFT farm	
			tour and potluck. Interns and apprentices from more	
	Institute of Applied Assignation	Choseneoko CRAFT et Terre Forme	than ten regional farms gathered to network and learn	http://jpp.umd.edu/
Agriculture & Natural Resources	Institute of Applied Agriculture	Chesapeake CRAFT at Terp Farm	about Terp Farm's sustainable production system.	http://iaa.umd.edu/

College	Department	Program Title	Brief Description	Link
			IAA hosted a field trip of the Best Buddies program at	
			Parkdale High School in Prince Georges County.	
			Students started seeds in the UMD greenhouse that	
			would later be planted at their school garden. We also	
			had a tour of the greenhouse, had a bilingual discussion	
			of vegetable consumption in their lives, and talked	
Agriculture & Natural Resources	Institute of Applied Agriculture	Best Buddies Greenhouse Workshop	about career opportunities through the IAA.	http://iaa.umd.edu/
			IAA hosted approximately 20 high school students from	
			across the country who are interested in studying	
			agriculture for two workshops: Tree Identification &	
Agriculture & Natural Resources	Institute of Applied Agriculture	AgDiscovery	Measurement, and Soils & Sustainability	http://iaa.umd.edu/
			UMD students attended this event organized by the	
			Community Learning Garden club and their faculty	
			advisor. Seed saved from the garden the past summer	
			and fall were procesed and packaged for free	
			distribution at spring garden events. The advisor led a	
			lesson on the seed saving process and the heirloom and	
Agriculture & Natural Resources	Institute of Applied Agriculture	Seed Saving Workshop	native varieties being saved.	http://iaa.umd.edu/