

Agriculture & Natural Resources provides instruction for those wishing training, retraining, or skills upgrading in the field of agriculture and those wishing to transfer to a four-year college or university. Diverse learning activities are provided at facilities on Maui and Molokai. The Maui facility includes a 10,700 sq. ft. greenhouse; two acres of turfgrass including a golf green, fairway, and rough; and a 1.5 acre vegetable field. The Molokai Farm includes a 5,000 sq. ft. greenhouse, orchards, and vegetable fields on 28 acres of land. Projections point to a continued need for well-trained people in all aspects of the green industry. Hotels and condominiums face increasing demand for personnel to design and maintain aesthetically pleasing landscapes. Golf course and recreational facilities require knowledgeable people to establish and maintain healthy turfgrass in an environmentally sound manner. Farms and plantations need informed individuals to implement new technologies and sustainable agriculture techniques. Numerous opportunities exist for entrepreneurs in vegetable, flower, and nursery crop production as well as landscape maintenance.

Students may transfer to other institutions after beginning their academic and technical training on Maui or Molokai. Agriculture courses have been articulated with the University of Hawai'i at Hilo; some courses are equivalent to the ones offered there, while others transfer as agriculture or general electives. Students can also meet agriculture program requirements at the University of Hawai'i at Mānoa, as well as mainland institutions.

Contact the program coordinator, Ann Emmsley, at 984-3243, or by email at [aemmsley@hawaii.edu](mailto:aemmsley@hawaii.edu) for latest program schedule cycle.

#### Requirements for Certificates of Competence (CO):

Agricultural Science: 7 credits	Agriculture 122(3), 200(4)
GIS in Ecosystem Management: 8 credits	Geographic Information Systems/Information and Computer Science 150(4) Geographic Information Systems 180(4)
Nursery Production: 9 credits	Agriculture 230(3), 266(3), 269(3)
Pest Management: 9 credits	Agriculture 174(3), 201(3), 281(3)

#### Requirements for Certificates of Completion (CC):

Turfgrass Specialist: 23 credits	Sustainable Tropical Crop Production: credits
Agriculture 122(3), 174(3), 233(2), 235(3), 260(3), 194v(3)	Agriculture AG 103(2)AG 104(2)122(3), 174(3), 232(1235(3), 251(4),
English 22, 100, or 106(3)	
Mathematics 18 or higher(3)	
<i>Additional courses to improve employability, but not required:</i>	Landscape Maintenance: 13 credits
Agriculture 200(4), 201(3), 250(4), 269(3), 281(3)	Agriculture 235(3), 250(4), 260(3), 269(3)

#### Requirements for Certificates of Achievement (CA):

Courses required for all four CA programs: 27 credits	
Agriculture 122(3), 174(3), 200(4), 201(3), 230(3), 235(3)	Automotive Technology
80(2), MATH 18 or higher(3)	English 22, 100, or 106(3)
Floriculture Management: 34 credits	Nursery Management: 34 credits
Agriculture 263(3), 269(3), 193V(1)	Agriculture 266(3), 269(3), 193V(1)
Horticulture & Landscape Maintenance: 40-41 credits	Sustainable Tropical Crop Management: 41credits
Agriculture 250(4), 260(3), 269(3) or 265(4), 281(3)	Agriculture AG 103(2), AG104(1)232(1), 251(4), AG 252(2),
	, 281(3), 193V(1)

#### Requirements for Associate in Applied Science (AAS) Degree60-62credits

Horticulture & Landscape Maintenance: 60-61 credits	Sustainable Tropical Crop Management: 62 credits
<i>All CA Horticulture &amp; Landscape courses(40) plus:</i>	<i>All CA Sustainable Tropical Crop courses(41) plus:</i>
Electives(8) from AG Elective List below	Electives( 9 ) from AG Elective List below
General Education(12) listed below	General Education(12) listed below
General Education required for both AAS programs: 12 credits	AG Elective List:
English 21, 22, 55, 100, 102, 104, 106, or BUS 130(3)	Agriculture ,ICS 101 or BUSN 150(3)
Humanities elective(3)	<i>Tropical Crop options:</i> Agriculture AG 113(1),AG 162(2), AG 253(4),

Social Science elective(3)

AG 265(4), Ag 263(3)AG 266(3)

*Horticulture options:* Agriculture 194v(1-3), AG 269(3) or AG 265(4)232(1)  
Trade/Natural Science appropriate to major, e.g., WELD 198

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#### Requirements for Certificates of Competence (CO):

Agricultural Science: 7 credits	Agriculture 122(3), 200(4)
GIS in Ecosystem Management: 8 credits	Geographic Information Systems/Information and Computer Science 150(4) Geographic Information Systems 180(4)
Nursery Production: 9 credits	Agriculture 230(3), 266(3), 269(3)
Pest Management: 9 credits	Agriculture 174(3), 201(3), 281(3)

#### Requirements for Certificates of Completion (CC):

Turfgrass Specialist: 23 credits	Sustainable Tropical Crop Production: 15 credits
Agriculture 122(3), 174(3), 233(2), 235(3), 260(3), 194v(3)	Agriculture AG 103(2), AG 104(2), 122(3), 174(3), 232(1), 235(3), 251(4), 290(4)
English 22, 100, or 106(3)	
Mathematics 18 or higher(3)	
<i>Additional courses to improve employability, but not required:</i>	Landscape Maintenance: 13 credits
Agriculture 200(4), 201(3), 250(4), 269(3), 281(3)	Agriculture 235(3), 250(4), 260(3), 269(3)

#### Requirements for Certificates of Achievement (CA):

Courses required for all four CA programs: 27 credits	
Agriculture 122(3), 174(3), 200(4), 201(3), 230(3), 235(3)	Automotive Technology 80(2)
BUSN 189, MATH 18 or higher(3)	English 22, 100, or 106(3)
Floriculture Management: 34 credits	Nursery Management: 34 credits
Agriculture 263(3), 269(3), 290(4), 193V(1)	Agriculture 266(3), 269(3), 290(4), 193V(1)
Horticulture & Landscape Maintenance: 40-41 credits	Sustainable Tropical Crop Management: 39-41 credits
Agriculture 250(4), 260(3), 269(3) or 265(4), 281(3)	Agriculture AG 103(2), AG 104(1), 232(1), 251(4), AG 252(2), 263(3), 266(3), 281(3), 290(4), 193V(1)

#### Requirements for Associate in Applied Science (AAS) Degree: 60-62 credits

Horticulture & Landscape Maintenance: 60-61 credits	Sustainable Tropical Crop Management: 62-60 credits
All CA Horticulture & Landscape courses(40) plus:	All CA Sustainable Tropical Crop courses-Horticulture & Landscape courses(39) plus:
Electives(58) from AG Elective List below	Electives(96) from AG Elective List below
General Education(12-15) listed below	General Education(12-15) listed below
General Education required for both AAS programs: 12-16 credits	AG Elective List:
English 21, 22, 55, 100, 102, 104, 106, or BUS 130/COM 145(3)	Agriculture 92P(1), 92Q(1), 92R(1), 92S(1), 92T(1), 262(3), 264(3), 266(3), 290(4)
ICS 101 or BUSN 150(3)	Tropical Crop options: Agriculture AG 113(1), AG 162(2), AG 253(4), AG 265(4), AG 263(3), AG 266(3), 250(4), 260(3), 269(3)
Humanities elective(3)	
Natural Science elective(3)	Horticulture options: Agriculture 194v(1-3), AG 269(3) or AG

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Social Science elective(3)  
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265(4)-232(1), 233(2), AG 266(3), AG 263(3), Ar 253(4)254(4)  
Trade/Natural Science appropriate to major, e.g., WELD 198ACG