

This Crosswalk shows how classes match Job Series -0454 requirements (see <https://www.opm.gov/policy-data-oversight/classification-qualifications/general-schedule-qualification-standards/0400/rangeland-management-series-0454/>) as of Feb. 3, 2022

Compiled by Susan Edinger Marshall (Cal Poly Humboldt)

University or college name		Angelo State Univ.	BYU	Chadron State College	Colorado State Univ.	Fort Hays State Univ.	Cal Poly Humboldt	Kansas State Univ.
18 BASIC PRINC.	Course (units)	RWM 3331 (3)	PWS 215 (3)	AGRI 242 (3)	RS300 (3)	BIOL 695 & 695L (4)	RRS 306 (3)	AGRON 501 (1.5)
	Course title	Princ. of Range Manag.	Princ. of Range Manag.	Princ. of Rangeland & Forage Manag.	Range. Conserv. & Stewardship	Range. Manag. & Techniques Lab	Wildland Res. Princip.	Range Management
18 RANGE PLANTS	Course (units)	RWM 3335 (3)	PWS 330 (3)	AGRI 339 & Lab (3)	RS312 (1)	BIOL 638 & 638L (4)	RRS 360 (3)	AGRON 560 (1)
	Course title	Range Plants	Range. Plant ID & Ecology	Range Plant ID & Lab.	Range Plant ID	Range. Plant Ecol. & Plant ID Lab	Wildland Plant Communities	Field ID Range & Pasture Plants
18 RANGE ECOL.	Course (units)	RWM 4333 (3)	PWS 350 (3)	AGRI 357 (3)	RS310 (3)	BIOL 637 (3)	RRS 370 (3)	AGRON 681 (3)
	Course title	Range Wildlife Management	Range. Ecology	Grazing Ecology	Forest & Range. Ecogeography	Contemp. Range. Issues	Wildland Ecology	Range Ecology
18 RANGE INVENTORIES & STUDIES	Course (units)	RWM 4336 (3)	PWS 355 (3)	AGRI 428 & Lab (3)	RS432 (3)		RRS 375 (3)	AGRON 660 & 661 (3)
	Course title	Range Invent. & Research	Range. Veg. Measurements & Analysis	Habitat Invent. & Analysis & Lab.	Rangeland Measure. & Monitoring		Vegetation Analysis & Health	Grassland Monitoring & Assess.
18 RANGE IMPROVEMENTS	Course (units)	RWM 3332 (3)	PWS 416 (3)	AGRI 334 (3)	RS452 (4)	BIOL 634 (3)	RRS 430 (3)	AGRON 501 (1.5)
	Course title	Range Improvements	Range.Veg. Improve.	Veg. Manipulation Practices	Rangeland Herbivory Ecology & Manage.	Range. Restor. & Conserv.	Wildland Restor. & Develop.	Range Management

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18 RANCH OR RANGELAND PLANNING	Course (units)	RWM 6345 (3)	PWS 417 (3)	AGRI 430 (3)	NR420 (4)		RRS 460 (3)	AGRON 790 (3)
	Course title	Ranch & Livestock Manage.	Range.Planning & GIS	Land Resource Manage. Planning	Integrated Ecosystem Manage.		Range & Ranch Planning	Range Manage. Planning
18 OTHER COURSES IN THIS CATEGORY?	Course (units)	RWM 4391 (3)						AGRON 670 (variable)
	Course title	Range Research						Range Management Problems
18 What other classes might be used in this category? Please explain the match-ups.	Open-Ended Response	RWM 6338 (Range Animal Nutrition (3)), RWM 6339 (Grazing Management (3)), RWM 6345 (Range and Livestock Management (3)).			Basic Principles: NR220 - NR Ecol. & Manage. (3) Range Improvements: RS478 - Ecological Restoration (3 credits) Ranch/Range Planning: ANEQ472 - Sheep Systems (3) ANEQ478 - Beef Systems (3)			AGRON 762 Range Grasses (Range Plants) (2)

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15 PLANT SCIENCE	Course (units)	RWM 4435 (4)	Bio 230 (4)	AGRI 141 (3)	BZ223 (3)	BIOL 610 and 610L (4)	BOT 350 (4)	BIOL 500 (3)
	Course title	Plant Taxon.	Plant Divers.	Intro. to Plant Science (3)	Plant ID	Flower. Plant Tax. & Lab	Plant Taxonomy	Plant Physiol.
15 PLANT SCIENCE (add'l)	Course (units)	RWM 2321 (3)	Bio 235 (3)	BIOL 439 (3)	RS209 (3)	BIOL 150 and 150L (4)	BOT 105 (4)	BIOL 551 (4)
	Course title(s)	Forage Prod. & Utiliz.	Field Botany	Plant Physiol. & Lab	Intro. to Forest & Range. Ecology	Botany and Lab	Intro. Botany	Taxonomy Flowering Plants
15 PLANT SCIENCE (add'l)	Course (units)		Bio 430 (3)	BIOL 336 and lab (3)	RS310 (3)	AGRI 112 and 112L (4)	BOT 354 (4)	BIOL 529 (3)
	Course title(s)		Plant Classification	General Ecology & lab.	Forest & Range. Ecogeography	Agron.Crop Science &Lab	Agrostology	Ecology
15 ANIMAL SCIENCE	Course (units)	ASCI 1319 (3)	PWS 270 (3)	AGRI 132 (3)	RS300 (3)	BIOL 651 and 651L (4)	RRS 420 (3)	ASI 515 (3)
	Course title		Animal Husbandry	Intro. to Animal Science	Range. Conservation & Stewardship	Mammalogy & Lab	Intro. to Animal Science	Beef Science
15 ANIMAL SCIENCE (add'l)	Course (units)	ASCI 3332 (3)	PWS 335 (3)	AGRI 234 (3)	RS452 (3)	BIOL 650 and 651L (4)		
	Course title(s)	Animal Nutrition	Comparative Animal Nutrition	Principles of Animal Nutrition	Range. Herbivory Ecology & Manage.	Ornithology and Lab		

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15 ANIMAL SCIENCE (add'l)	Course (units)	ASCI 4343 (3)				AGRI 111 and 11L (4)		
	Course title(s)	Beef Cattle				Animal Science and Lab		
15 SOIL SCIENCE	Course (units)	RWM 2321 (3)	PWS 282 & 283 (3+1)	AGRI 245 and Lab (4)	SOCR240 (4)	AGRI 215 (4)	SOIL 260 (3)	AGRON 515 (3)
	Course title	Rangeland Soils	General Soils Lab	Principles of Soil Science & laboratory	Introo. Soil Science	Soils	Intro to Soil Science (3)	Soil Genesis & Classification
15 Soil Sciences SOIL SCIENCE (add'l)	Course (units)	Geol 3301 (3)	PWS 440 (3)	AGRI 436 (3)	SOCR440 (4)		SOIL 360 (3)	
	Course title(s)	Hydrology	Plant Physiology	Rangeland and Fire Ecology	Pedology		Origin and Classification of Soils	
15 Soil Sciences SOIL SCIENCE (add'l)	Course (units)		PWS 511 (3)		SOCR442 (3)		SOIL 460 (3)	
	Course title(s)		Environmental Biophysics: Soil and Plant Water Relations		Forest and Range Soils		Soil Management and Erosion Control	

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15 Directly Related Plant, Animal, and Soil Science What other classes might be used in this category?	Open-Ended Response				Plant Science: RS351 - Wildland Ecosystems in a Changing World (3)	AGRI 306 Forage Crops (Plant Science) (3) AGRI 408 Sheep Production and Management (Animal Science) (3) AGRI 610 Beef Cattle Production and Management (Animal Science) (3)		
9 Related Resource Management Studies	Course (units)	RWM 4331 (3)	PWS 225 (3)	AGRI 348 (3)	FW104 (3)	BIOL 695 and 695L (4)	WSHD 310 (4)	AGRON 305 (4)
	Course title	Wildlife Techniques	Principles of Wildlife and Fisheries Management	Rangeland Hydrology	Wildlife Ecology & Conservation	Rangeland Management and Techniques Lab	Watershed Management	Soils

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9 Related Resource Management Studies	Course prefix and number	RWM 4334 (3)	PWS 411 (3)	AGRI 235 (3)	AREC202 (3)	BIOL 697 and 697L (4)	FOR 315 (3)	AGRON 550 (3)
	Course title	Big Game Management	Watershed Management	Introduction to Wildlife Management	Agricultural Resource Economics	Wildlife Management and Lab	Forest Management	Forage Management & Utilization
9 Related Resource Management Studies	Course (units)	Biol 4451 (4)	PWS 419 (3)	AGRI 330 (3)	F311 Forest Ecology (3)	BIOL 699 and 699L (4)	ESM 215 (3)	AGEC 120 (3)
	Course title	Ecology	Forest Management and Ecology	Agriculture economics and agribusiness		Fisheries Management and Lab	Natural Resources and Recreation	Agricultural Economics & Agribusiness
9 Related Resource Management Studies	Course (units)	Geol 3371 (3)	PWS 357 (3)	GEOS 322 (3)	BZ471 (3)		WLDF 301 (3)	
	Course title(s)	GIS (Geomapping)	Techniques for Wildlife Invest. & Manage.	Introduction to GIS	Stream Biology & Ecology		Principles of Wildlife	

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9 Related Resource Management Studies	Open-Ended Response				WR204 Sustainable Watersheds (3) NR320 Natural Resources History and Policy (3)		ECON 423 Environmental and Natural Resource Economics (3)	

	Montana State Univ.	New Mexico State Univ.	North Dakota State Univ.	OK State Univ.	South Dakota State Univ.	So. Utah Univ.	Tarleton State Univ.	Texas A&M Univ. College Station
18 BASIC PRINC.	NRSM 101 (3)	RGSC 2110 (3)	RNG 136 (3)	NREM 3613 (3)	Rang 205 (3)	RANG 3600 & 3605 (4)	RNRM-3301-530 (3)	ESSM 314 (3)
	Natural Resources Conservation	Intro. to Range. Manag.	Intro. to Range. Manag.	Princ. of Range Manag.	Intro. to Range Manag.	Range. Manag. & Lab	Princ. of Range Manag.	Princ. of Range Manag. Around the World
18 RANGE PLANTS	NRSM 350 (3)	RGSC 316 (3)	RNG 450/650 (3)	PBIO 4005 (5)	Rang 210-210L (2)	RANG 3800 & 3805 (4)	RNRM-3300-010 (3)	ESSM 302 (3)
	Veg. of Western Wildlands	Range. Plants	Range Plants	Field Botany	Range Plant ID & Lablab	Range. Plant Ecol. & ID	Range & Forest Plants	Wildland Plants of North America
18 RANGE ECOL.	NRSM 240 (3)	RGSC 440 (3)	RNG 458/658 (3)	NREM 3013 & 3012 (5)	Rang 321 (3)	RANG 4200 (3)	RNRM 3315-010 (3)	ESSM 316 (3)
	Natural Resource Ecology	Range. Res. Ecology	Grazing Ecology	Applied Ecol. & Conserv. Lecture & lab	Wildland ecosystems	Wildland Ecology	Range Ecology	Range Ecology
18 RANGE INVENTORIES & STUDIES	NRSM 453 (3)	RGSC 452 (4)	RNG 213 (3)	NREM 3813 (3)	Rang 425-425L (3)			ESSM 313 (3)
	Habitat Invent. & Analysis	Veget. Measurements	Range Sampling Techniques	Biometrics (name change soon)	Range. Assessment & Monitor. Lab			Veg. Sampling Methods & Designs in Ecosystems
18 RANGE IMPROVEMENTS	ENSC 461 (3)	RGSC 325 (3)	RNG 456 (3)	NREM 4783 and 4793 (3+3)	Rang 374-374L (4)	RANG 4400 and 4405 (4)	RNRM-4312-010 (3)	ESSM 317 (3)
	Restoration Ecology	Range. Restoration Ecology	Ecolog. Restoration	Prescribed Fire & Adv.Prescribed Fire	Habitat Conserv. & Manage. Lab	Wildland Restor. & Lab	Range Improv. & Devel.	Veg. Manage.

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18 RANCH OR RANGELAND PLANNING	WILD 420 (3)	RGSC 460 (4)	RNG 462/662 (3)	NREM 4613 (3)	Rang 215 crosslisted as AS 215 (3)			ESSM 415 (4)
	Range & Wildlife Policy & Planning	Range. Planning Manage.	Natural Resource & Range. Planning	Range. Resources Planning	Intro.to Integrated Range Manage.			Range Analysis & Manage. Planning
18 OTHER COURSES IN THIS CATEGORY?	NRSM 353 (3)	RGSC 317 (3)	RNG 451/651 (3)	NREM 4023 (3)	Rang 421 (3)	RANG 4000 (3)		ESSM 301 (3)
18 What other classes might be used in this category? Please explain the match-ups.	Grazing Ecology and Management NRSM 330 - Fire Ecol and Management (Range Ecol class) (3) NRSM 351- Biomes of western woodlands (Range Ecol) (2)	Rangeland Communities	Ecology of Fire-Dependent Ecosystems	Restoration Ecology ANSI 4203 Range. & Pasture Util. (3)	Grassland Fire Ecology EES 425- EES 425L, Disturbance and Restoration Ecology and Lab (3) NRM 311, Principles of Ecology (3)	Rangeland - Ungulate Animal Relations		Wildland Watershed Management ESSM 303 Agrostol. (3) ESSM 304 Range. Plant Tax. (3) ESSM 320 Ecosyst. Rest. & Manage. (3) ESSM 440 Wetland Delin. (3) RWFM 349 Range. & Wildlife Animal Nutr. (3) -RWFM 401 Range. Plant & Herbiv. Dyn. (3) -ESSM 416 Fire Ecol. & NR Manage. (3)

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15 PLANT SCIENCE	BIOO 433 (3)	RGSC 357 (3)	BIOL 314 (3)	NREM 4033 (3)	Bot 301-301L (3)	AGSC 3030 and 3035 (4)	BIOLOGY 1406 (4)	RWFM 202 (3)
	Plant Physiol.	Grass Tax.	Plant Systematics	Ecol. of Invasive Species	Plant Systematics	Forage Crops and Lab	Basic Biology	Conc. in Appl. Plant Biol.
15 PLANT SCIENCE (add'l)	AGSC 454 (3)	EPWS 314 (3)	BIOL 460/660 (3)	NREM 4990 (3)	BOT 303-303L (3)	AGSC 1110 and 1115 (4)	AGRI 1307 (3)	
	Agrostology	Plant Physiol.	Plant Ecology	Herb. Plants Great Plains	Forest Ecol. & Management	Crop Prod. & Lab	Fund. of Agron.	
15 PLANT SCIENCE (add'l)	Bioo 233 (4)		BOT 372 (3)		PS 313 (3)		BIOLOGY 3415 or BIOLOGY 3436 (4)	
	ID of Seed Plants		Struct. & Divers. of Plants &Fungi		Forage Crop & Pasture Manage.		Plant Tax. or Plant Physiol.	
15 ANIMAL SCIENCE	ANSC 100 (3)		ANSC 114 (3)	ANSI 1124 (4)	AS 101 - AS101L (4)	AGSC 1000 (3)	BIOLOGY 1406 (4)	ANSC 107 (3)
	Intro. to Animal Science		Intro.to Animal Sciences	Intro. to Animal Science	Intro. to Animal Science	Princ. of Animal Science	Basic Biology	General Animal Science
15 ANIMAL SCIENCE (add'l)	ANSC 222 (3)	ANSC 1170 (3)	ANSC 220 (3)	ANSI 3543 (3)	AS 218 (3)	AGSC 3400 & 3405 (4)	AGRI 1419? (3?)	ANSC 108 (1)
	Livestock in Sustainable Systems	Introduction to Animal Metabolism	Animal Production	Principles of Animal Nutrition	Survey of Animal Nutrition	Feed & Nutr. of Livest. & Horses Lab	Animal Sci & Vet. Tech.?	General Animal Science Lab.

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15 ANIMAL SCIENCE (add'l)	WILD 325 (3)	ANSC 1120 (3)	ANSC 223 (3)	ANSI 4613 (3)	WL 220 (3)		ANSC 2350, ANSC 3409, ANSC 3319, ANSC 3308, ANSC 3300	ANSC 302 (3)
	Wildlife-Livestock Nutrition	Introduction to Animal Science	Introduction to Animal Nutrition	Beef Cow-Calf Management	Introduction to Wildlife and Fisheries Management		Anatomy & Physiology of Domestic Animals, Genetics, Animal Breeding, Principles o Animal Nutrition, Applied Animal Nutrition & Feeding Meat	Basic Beef Cattle Production
15 SOIL SCIENCE	ENSC 245 (3)	SOIL 2110 (3)	SOIL 210 (3)	SOIL 1124 (4)	PRAG 410-410L (3)	AGSC 3506 & 3565 (4)	SOIL 3301 (3)	SCSC 301 (4)
	Soils	Introduction to Soil Science	Introduction to Soils	Fundamentals of Soil Science	Soil Geography and Land Use Interpretation	Soils and Lab	Soil Science	Soil Science
15 Soil Sciences SOIL SCIENCE (add'l)	ENSC 454 (3)	SOIL 2110L (1)	SOIL 410/610 (3)	SOIL 3433 (3)	PS 462-462L (3)		SOIL 3412 (3)	
	Landscape Pedology	Introduction to Soil Science Lab	Soils and Land Use	Soil Genesis, Morphology and Classification	Environmental Soil Management		Soil genesis, Morphology, and Classification	
15 Soil Sciences SOIL SCIENCE (add'l)		SOIL 472 (4)	SOIL 444/644 (3)	SOIL 4363 (3)	PS 213-213L (3)			
		Soil morphology and classification	Soil Genesis and Survey	Soil, Water and Weather	Soils			

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15 Directly Related Plant, Animal, and Soil Science What other classes might be used in this category?		RGSC/ANSC 458 Livestock Behavior, Welfare and Handling - (3); ANSC 304 Feeds and Feeding - (3); ANSC 426 Beef Production Cow/Calf Management - (3)	All (3) BIOL 315 - Genetics ANSC 324 - Applied Animal Nutrition SOIL 351 - Soil Ecology SOIL 465/665 - Soil and Plant Analysis SOIL 433/633 Soil Ecohydrology and Physics	ANSI 4633 Stocker and Feedlot Cattle Management (3)	PS 412, Environmental Soil Chemistry (3)			
9 Related Resource Management Studies	AGSC 342 (3)	RGSC 318 (3)	RNG 453/653 (3)	NREM 3503 (3)	ABS 475-475L (3)	NR 1010 (3)	AAEC 2317 (3)	ESSM 201 (1)
	Forages	Watershed Management	Rangeland Resources Watershed Management	Wildlife Management	Integrated Natural Resource Management	Introduction to Natural Resources Management	Fundamentals of ag. & Appl. Econ.	Exploring Ecosystem Science and Management

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9 Related Resource Management Studies	WILD 301 (3)	RGSC 302V (3)	NRM/RNG/SOIL 454/654 (3)	AGEC 1113 (3)	NRM 119 (2)	RANG 3600 & 3605 (4)		RENr 205 (3)
	Princ. of Fish & Wildlife Manage.	Forest and Society	Wetland Resources Management	Intro. to Ag. Economics	Orient. to Natural Res. Manage.	Rangeland Manage. and Lab		Fundamentals of Ecology
9 Related Resource Management Studies	NRSM 455 (3)	FWCE 1110G (4)	NRM 402/602 (3)	NREM 4353 (3)	NRM 230 (2)	NR 3000 (3)		RENr 215 (1)
	Riparian Ecology and Management	Introduction to Natural Resource Management	River and Stream Resource Manage.	Natural Resource Recreation	Natural Resource Management Techniques	Wildlife Ecology and Management		Fundamentals of Ecology-- Laboratory
9 Related Resource Management Studies	WILD 438 (3)	FWCE 2110 (3)	NRM 452/652 (3)	NREM 4413 (3)	NRM 300 (3)			RWFM 305 (3)
	Wildlife Habitat Ecology	Principles of Fish and Wildlife Management	Managing Nat. & Range. Res. using GIS	Watershed Hydrology and Water Quality	Laws and Policies in NR Manage.			Princ. & Pract. of Wildlife & Fish. Manage.

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9 Related Resource Management Studies	GPHY 284 - Intro to GIS (3)	Only RGSC 318 is required. 6 additional credits may include: FWCE 1110G Intro. NR Manage.(3), FWCE 2110 Princ. Fish & Wild. Manage. (3) AEEC 337V Natural Resource Econ. (3) AEEC 384V Water Resource Econ. (3)	NRM 431/631 - National Environmental Policy Act & Environmental Impact Assessment (3)	NREM 4603 Ecotour. & Wilderness Manage. (3); NREM 2083 or GEOG 4203 GIS course (3); NREM 4001 Issues in Global Change (1); NREM 4043 NR Admin. & Policy (3); NREM 4613 Rangeland Res. Plan.(3)	AGEC 271, Farm and Ranch Management	AGSC 3020 Agribusiness Management (3)		WFSC 303 Fish & Wlfe Laws & Admin. (3) RWFM 321 Communic. NR (3) -AGEC 325 Farm & Ranch Manage. (3) - ESSM 351 GIS for Res. Manage, (3) - RENR 375 Cons. of NR (3) -WFSC 304 Wild. & Fish. Cons (3) - WFSC 406 Wildf

	Texas Tech Univ.	Univ. of Arizona	Univ. of CA at Berkeley	Univ. of Idaho	Univ. of NE Lincoln	Univ. of Nevada Reno	University of Wyoming	Utah State Univ.
18 BASIC PRINC.	NRM-3304 (3)	RNR 384 (3)	ESPM 186 (4)	REM 151 (3)	NRES 220 (3)	REM 241 (3)	REWM 2000 (3)	WATS 2220 (3)
	Princ. of Range Manag.	Nat. Res. Manag. Practices (1 unit to range)	Manag. & Conserv. of Range. Ecosystems	Range. Principles	Princ. of Ecology	Princ. of Range Manag.	Principles of Rangeland Management	General Ecology
18 RANGE PLANTS	NRM-3403 (4)	RNR 230 (3)	IB 102 & L (4)	REM 252 & REM 253 (2+1)	AGRO 442 (3)	NRES 345 (3)	REWM 2400 (4)	WILD 3830 (3)
	Range, Forest, & Wetland Veg. in North America	Field Botany	Intro. to CA Plant Life	Wildland Plant ID & Wildland Plant ID Field Studies	Wildland plants	Range & Forest Plants	Range Ecosystems and Plants	Range. Plants & Taxonomy
18 RANGE ECOL.	NRM-3302 (3)	RAM 382; RAM436a (3+2)	ESPM 116B (4)	REM 459 (3)	AGRO 245 (3)	AGSC 408 (5)	LIFE 3400	WILD 3800 (4)
	Range Plant Ecology	Range. Plant Communities; Grazing Ecol. & Manage	Ecology of Grasslands & Woodlands	Range. Ecology	Intro. to Grassland Ecology & Manage	Range. Ecosystems	General Ecology	Wildland Plants & Ecosystems
18 RANGE INVENTORIES & STUDIES	NRM-3301 (3)	RAM 456a (4)	ESPM 278 & ESPM 72 (3+3)	REM 410 & REM 460 (2+1)	AGRO 440 (3)	REM 411 (3)	REWM 4330 (4)	WILD 4750 (4)
	Veg. Invent. & Analysis	Range. Inventory & Monitoring	Range. Assessment/ GIS	Princ. of Veg. Monitor. & Meas. & Integr. Field Studies in Range.	Ecosystem Monitoring & Assessment	Range. Vegetation Measurements	Rangeland Ecosystem Assessment and Monitoring	Monitoring & Assessment in Nat. Res. Mgt.
18 RANGE IMPROVEMENTS	NRM-4302 (3)	RAM 446 (4)	ESPM 280 (3)	REM 280 & PLSC 419 (2+2)	AGRO 340 (3)	REM 498 (3)	REWM 4850 (3)	WILD 3850 (3)
	Range Improvements	Restor. & Manage. of Wildland Veg.	Range Planning & Policy	Intro. to Wildland Restor. & Plant Comm. Restor. Methods	Range Manage. & Improve.	Range. Restor. Ecology	Rangeland Vegetation Management Techniques	Vegetation & Habitat Mgt.

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18 RANCH OR RANGELAND PLANNING	NRM-4303 (3)	RAM 487 (2)	ESPM 280 (3)	REM 456 (3)	NRES 438 (3)	REM 494 (3)	REWM 4900 (3)	WILD 4000 (3)
	Range & Wildlife Analys. & Manage. Planning	Range. Manage.Plannin g	Range Planning & Policy	Integrat. Range. Manage.	Grassl. Conserv. Planning & Manage.	Range & Forest Admin. & Policies	Rangeland Management Planning	Princ. of Range Mgt.
18 OTHER COURSES IN THIS CATEGORY?	NRM-3323 (3)		ESPM 278 (3)		AGRO 440 (3)		REWM 4830 (3)	WILD 4910 (3)
18 What other classes might be used in this category? Please explain the match-ups.	Prescribed Burning NRM 3300 GIS for NR Manage. (3) BOT/NRM (4) 3401 Plant Physiology NRM 3309 Restoration Ecology (3)	There is a new course on Principles of Range Management , 2 credits, but it is not in the catalog yet.	Rangeland Assessment ESPM 121 Devel. & Classif. of Soils (3) ESPM 120 Sci. of Soils (3) ESPM 134 Fire, insects, & disease in wildland ecosystems (3) ESPM C172 Remote sensing Environ. (3) ESPM 102BL Lab. in NR Sampling (2) ESPM 252: Seminar in Forest & Wildland Resource Policy & Analysis (3)		Great Plains Ecosystems	Range Plants: REM 408 Range. Ecosyst. (5) Range Ecology: BIOL 314 Ecol. & Pop. Biol. (3), NRES 217 NR Ecology (3) Inventory/Impro vements/Plannin g: REM 499 Riparian Manage. & Restoraiton (3) PSC 403C: Environ. Policy (3)	Ecological Applications of Wildland Management REWM 4530 (Range or Watershed Seminar; 1)	Assessment and Synthesis in NR WILD 1800 (3) Introduction to GIS

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15 PLANT SCIENCE	PSS 3323 (3)	PLS 360 (3)	EPSM 111 (4)	BOT 205 (4)	AGRO 215 (3)	NRES 406 (4)	REWM 3000 (4)	WILD 2400 (1.5)
	Crop Physiol.	Plant Growth & Physiol.	Ecosystem Ecology	General Botany	Genetics	Plant Ecophysiology	Plant Ecophysiology: Plant Form and Function	Wildland Res. Techniques
15 PLANT SCIENCE (add'l)	NRM 4304 (3)	ECOL 472 (4)	ESPM 105A (4)	REM 341 (3)			LIFE 2023 (4)	WILD 3810 (1.5)
	Fire Ecology & Manage.	Systematic Botany	Sierra Nevada Ecology	Systematic Botany			Biology of Plants and Fungi	Plant & Animal Populations
15 PLANT SCIENCE (add'l)	NRM 4314	PLS 359	INTEGBI 157LF		AGRO 325		RNEW 4130 (3)	BIOL 4400
	Watershed Planning	Plant Cell Struct. & Function	Ecosystems of California		Intro. Plant Physiol.		Applied Remote Sensing for Agricultural Management	Plant Physiol.
15 ANIMAL SCIENCE	ANSC 4406 (4)	ACBS 336 (3)	ESPM 106 (3)	AVS 110 (3)	AGRO 447 (4)	AGSC 413 (3)	REWM 4100 (4)	WILD 2400 (1.5)
	Sheep & Goat Production	Applied Animal Nutrition	American Wildlife: Management & Policy in the 21st Century	Science of Animal Husbandry	Great Plains Field Pedology	Range-livestock Interactions	Nutritional Ecological Management of Range Herbivores	Wildland Resource Techniques
15 ANIMAL SCIENCE (add'l)	NRM-4314 (3)	ACBS 334 (3)	ESPM 114 (3)	AVS 109 (4)	ASCI 451 (3)	AGSC 418 (3)		WILD 3810 (1.5)
	Wildlife & Livestock Nutrition	Princ. of Animal Nutrition	Wildlife Ecology	The Science of Animals that Serve Human.	Livest. Manage. on Range & Pasture	Beef Cattle Manage		Plant & Animal Populations

University or college name	Texas Tech Univ.	Univ. of Arizona	Univ. of CA at Berkeley	Univ.of Idaho	Univ.of NE Lincoln	Univ. of Nevada Reno	University of Wyoming	Utah State Univ.
15 ANIMAL SCIENCE (add'l)	ANSC 3301 (3)	ACBS 405 (3)	INTEGBI 31 (3)	AVS 474 (3)	NRES 311 (3)	AGSC 206 (3)		ADVS 2080 (3)
	Principles of Nutrition	Principles of Livestock Health Management	The Ecology and Evolution of Animal Behavior	Beef Cattle Science	Wildlife Ecology and Management	Fundamental of Animal Nutrition		Beef and Dairy Herd Health and Production Practices
15 SOIL SCIENCE	PSS 2432 (4)	ENVS 200, 201 (4)	ESPM 120 (3)	SOIL 205 (3)	AGRO 153 (4)	NRES 497 (3)	SOIL 2010 (4)	PSC 3000 (4)
	Principles and Practices in Soils	Soil Science	ESPM 120 Science of Soils 3 Units	The Soil Ecosystem	Soil Resources	Forest and RAnge Soils	Introduction to Soil Science	Fundamentals of Soil Science
15 Soil Sciences SOIL SCIENCE (add'l)	PSS 4332 (3)	ENVS 431 (3)	ESPM 121 (3)	SOIL 206 (1)		NRES 322 (4)	SOIL 4120 (4)	PSC 5130 (4)
	Soil Classification	Soil Morphology, Classification and Interpretation	Development and Classification of Soils	The Soil Ecosystem Lab		Intro to soils	Genesis, Morphology, and Classification of Soils	Soil Genesis, Morphology, and Classification
15 Soil Sciences SOIL SCIENCE (add'l)	PSS 3321 (3)	ENVS 300 (3)	EPS 101 (4)	SOIL 454				
	Forage and Pasture Crops	Soil Ecology of Sustainable Systems	Field Geology and Digital Mapping	Pedology (3)				

University or college name	Texas Tech Univ.	Univ. of Arizona	Univ. of CA at Berkeley	Univ. of Idaho	Univ. of NE Lincoln	Univ. of Nevada Reno	University of Wyoming	Utah State Univ.
15 Directly Related Plant, Animal, and Soil Science What other classes might be used in this category?	NRM 1401 - Introduction to Natural Resources Management (4)	Animal Sci: ACBS 477 Beef Resources Management (3) also ACBS 315R (3), ACBS 480B (1)	ESPM 134 Fire, Insects, Disease in Wild. Ecosyst. (3) ESPM 280 Fire Ecol. Sem. (3) ESPM 102BL Lab. In NR Sampling (2) ESPM 115C Fish Ecol. (3) ESPM 114 Wildlife Ecol. (3) ESPM 113 Insect Ecol. (2)				LIFE 2022 (Animal Biology, 4); REWM 4000 (Poisonous Plants and Plant Toxins, 3); SOIL 4150 (Forest and Range Soils, 3); REWM 4200 (Reclamation of Drastically Disturbed Lands, 3); REWM 4440 (Applied Fire Ecology, 3); REWM 4580 (Rangeland Restoration Ecology, 3); REWM 4750 (Wildlife Habitat Restoration Ecology, 3)	Plant Science- PSC 3500 Struct. & Funct. of Plants (3) PSC 5550 Fund. of Integrated Weed Manage. (4) Animal Science- ADVS 2090 Sheep Prod. Practices (2) WILD 4340 Range Rum. Nutr. & Manage. (3)
9 Related Resource Management Studies	NRM 4309 (3)	RNR 448 (3)	ESPM C104 (4)	WLF 411 (2)	SCIL 101 (3)	NRES 310 (4)	REWM 3100 (3)	WATS 3700 (3)
	Range-Wildlife Habitat Management	Conservation Planning and Wildland Recreation	Modeling and Management of Biological Resources	Wildland Habitat Ecology and Assessment	Science and Decision-Making for a Complex World	Wildlife Ecology and Management	Principles of Wildland Water Quality	Fundamentals of Watershed Science

University or college name	Texas Tech Univ.	Univ. of Arizona	Univ. of CA at Berkeley	Univ. of Idaho	Univ. of NE Lincoln	Univ. of Nevada Reno	University of Wyoming	Utah State Univ.
9 Related Resource Management Studies	NRM 4304 (3)	RNR 355 (3)	ESPM 115B (2)	FOR 462 (3)	AECN 141 (3)	NRES 295 (3)	REWM 4285 (3)	ENVS 3010 (3)
	Fire Ecology and Management	Introduction to Wildland Fire	Biology of Aquatic Insects 2 Units	Watershed Science & Manage.	Intro. to the Econ. of Agriculture	Ecohydrology	Wildland Hydrology	Fund. of Nat. Res. & Environ. Policy
9 Related Resource Management Studies	NRM- 3300 (3)	WFSC 444 (4)	ESPM 134 (3)	NRS 383 (3)	AECN 265 (3)	AGSC 425 (4)	REWM 4700 (3)	ENVS 4000 (3)
	GIS for NR Management	Wildlife Ecology, Conservation, and Management	Fire, insects, and disease in wildland ecosystems	Natural Resource and Ecosystem Service Economics	Resource and Environmental Economics I	Forage Science	Wildland Watershed Mangement	Human Dimensions of Natural Resource Management
9 Related Resource Management Studies	NRM- 3311 (3)	RAM 441 (3)		FOR 375 (3)	NRES 412 (3)		AGEC 4700 (3)	APEC 3010 (3)
	Field Ecology	NR Manage. in Native Amer. Communities		Intro. to Spatial Analysis for NR Management	Intro. to GIS		Economics of Range Resources	Intro to Agricultural Economics

University or college name	Texas Tech Univ.	Univ. of Arizona	Univ. of CA at Berkeley	Univ. of Idaho	Univ. of NE Lincoln	Univ. of Nevada Reno	University of Wyoming	Utah State Univ.
9 Related Resource Management Studies	NRM 3325 - Integrated Natural Resources Management Skills	RAM 340 Cons. & Agric. Southwest (3), RNR 400 Nox. Invasive Plants (3), RNR 316: NR Ecology (3s) and RNR 200: Cons. of Natural Environ. (3), RNR 458 Ecosystem Ecol. & a Sust. Future (3), WSM 452 Dryland Ecology &			ALEC 388 Ethics in Agriculture and Natural Resources; NRES 281 Introduction to Water Science	GEOG 210R: Introduction to Geotechnology (3)		APEC 3012 Intro. to Nat. Res. & Region. Econ. (3) ENVS 3300 Fund. of Recreation Res. Mgt. (3) PSC 4320 Forage Prod. & Pasture Ecol. (3) PSC 4280 World Field Cropping Syst. (3) WILD 4500 Principles of Wildlife Mgt. (3) WILD 5200

	Shasta College	Sheridan College
18 BASIC PRINC.	AGNR 4 (3)	REWM 2000 (3)
	Wildlands and Range Ecology	Princ. of Range Manag.
18 RANGE PLANTS		REWM 2420 (2)
		Range. Plant Taxon.
18 RANGE ECOL.		Range. Ecosystems (2)
		REWM 2410
18 RANGE INVENTORIES & STUDIES		REWM 2350 (1)
		Range & Pasture Monitor.
18 RANGE IMPROVEMENTS		

University or college name	Shasta College	Sheridan College
18 RANCH OR RANGELAND PLANNING		
18 OTHER COURSES IN THIS CATEGORY?		REWM 1005 (2)
18 What other classes might be used in this category? Please explain the match-ups.		Survey of Natural Resource Management

University or college name	Shasta College	Sheridan College
15 PLANT SCIENCE	AGPS 20 (3)	BIOL 2400/BIOL 2410 (3+2)
	Plant Science	General Ecology/ Field Ecology
15 PLANT SCIENCE (add'l)		
15 PLANT SCIENCE (add'l)		
15 ANIMAL SCIENCE	ANSC 19 (3)	
	Animal Science	
15 ANIMAL SCIENCE (add'l)	AGSC 30 (3)	
	Livestock Prod.	

University or college name	Shasta College	Sheridan College
15 ANIMAL SCIENCE (add'l)		
15 SOIL SCIENCE	AGPS 24 (3)	SOIL 2010 (4)
	Soils	Intro to Soil Science
15 Soil Sciences SOIL SCIENCE (add'l)		
15 Soil Sciences SOIL SCIENCE (add'l)		

University or college name	Shasta College	Sheridan College
15 Directly Related Plant, Animal, and Soil Science What other classes might be used in this category?		
9 Related Resource Management Studies	AGNR 1 (3)	REWM 2390 (1)
	Intro to Natural Resources	Capstone in Rangeland Management

University or college name	Shasta College	Sheridan College
9 Related Resource Management Studies	AGNR 70 (3)	
	Wildlife Conservation & Manage.	
9 Related Resource Management Studies	AGNR 53 (3)	
	Forest Production and Health	
9 Related Resource Management Studies	AGNR 51 (3)	
	Silviculture and Fire Ecology	

University or college name	Shasta College	Sheridan College
9 Related Resource Management Studies	AGNR 50 Natural Resources Measurements (3)	