

		Mon.	Tue.	Wed.	Thu.	Fri.	Intensive courses and other courses (Dates to be determined)	
First Half, First Semester 2023	1	ESD	Advanced Course in Hydrological Cycle[J/E] SATO C204-2	Introduction to Global Environmental Management[E] OKINO & others D102	Advanced Course in Hydrological Cycle[J/E] SATO C204-2			[Inter-Graduate School Classes] Introduction to Environmental Science [J] (April 4-6): YAMANAKA & others(D201) Introduction to Environmental Science[E] (April 4-6): WATANABE & others (D101)
		ESS			Advanced Course in Chemical Oceanography[J] NISHIOKA WATANABE YAMASHITA C202	☆Advanced Course in Biogeochemical Cycles in Ecosystems[J] (Advanced Course in Biogeochemistry [J]) CHIKARAISHI TAKIZAWA D102	Advanced Course in Chemical Oceanography[J] NISHIOKA WATANABE YAMASHITA C202	
		BS	Advanced Course in Environmental Molecular Biology II [J/E] TANAKA ITO TAKABAYASHI WASHIO HORI MIWA ONO D101,ILTS		Fundamental Course in Molecular Biology[J] Fundamental Course in Molecular Biology[E] MORIKAWA & others MORIKAWA & others D101 D102		Advanced Course in Agro-Ecosystem Science I (Crop Production) [J/E] HOSHINO GOTOH HIRATA NAKAMURA FSC 106	
		EMS	Fundamental Course in Materials Science II [J/E] KAMIYA D103	Advanced Course in Environmental Catalytic Chemistry II[J/E] NAKAJIMA D103	Fundamental Course in Materials Science I [J/E] YAGI D103		Fundamental Course in Materials Science II[J/E] UMEZAWA D103	
	2	ESD		Introduction to Environmental Adaptation [J] NORO & others C204-1	Advanced Course in Environmental Geoinformatics[E] Avtar C204-1	Advanced Course in Environmental Geoinformatics[E] Avtar C204-1	Introduction to Environmental Adaptation [J] NORO & others C204-1	Special lecture in Earth System Science II Intensive courses for Course in Biogeochemistry :Dates TBD [J]
		ESS	Fundamental Course in Atmosphere-Ocean Physics [J] OSHIMA FUJIWARA D201	Advanced Course in Geophysical Fluid Dynamics[J] NAKAMURA D102	Fundamental Course in Atmosphere-Ocean Physics[J] OSHIMA FUJIWARA D201	☆Advanced Course in Biogeochemical Cycles in Ecosystems[J] (Advanced Course in Biogeochemistry [J]) CHIKARAISHI TAKIZAWA D102	Advanced Course in Atmospheric and Oceanographic Data Analysis[J/E] FUKAMACHI AOKI D102	Advanced Course in Forest Sphere Science I [J](Ecosystem Function) :TAKAGI and others (URYU-NAKAGAWA-TESHIO) Advanced Course in Forest Sphere Science II [J]NAKAMURA and others(WAKAYAMA) Dates TBD Advanced Course in Forest Sphere Science III [J]: AGETSUMA and others(TOMAKOMAI) Dates TBD
		BS	Advanced Course in Animal Ecology I [J/E] NODA KOIZUMI D101	Fundamental Course in Marine Biological Processes [J/E] KUDO YOSHIMURA TAKAGI D101	Advanced Course in Animal Ecology I [J/E] NODA KOIZUMI D101	Fundamental Course in Marine Biological Processes [J/E] KUDO YOSHIMURA TAKAGI D101		
		EMS	Fundamental Course in Materials Science III [J/E] UMEZAWA D103	Advanced Course in Biomaterials Chemistry I [J/E] ONODA D103	Fundamental Course in Materials Science II [J/E] KAMIYA D103		Fundamental Course in Materials Science I [J/E] YAGI D103	Special Lecture in Environmental Materials Science [J]- II [J]- III[J/E]- IV[J] (Dates TBD)
	3	ESD			Advanced Course in Geoecological Resources [E] HAYAKAWA C204-2	Advanced Course in Academic English Writing for Environmental Sciences [E] Raner D101		
		ESS	Fundamental Course in Paleoenvironmental Science [J] YAMAMOTO - SEKI - IRINO - MATOBA - IIZUKA D103	Fundamental Course in Marine and Atmospheric Chemistry [J] SUZUKI KAMEYAMA MIYAZAKI D103	Fundamental Course in Marine and Atmospheric Chemistry [J] SUZUKI KAMEYAMA MIYAZAKI D103	Advanced Course in Polar Oceanography [J] AOKI TOYODA NAKAYAMA D103	Fundamental Course in Paleoenvironmental Science [J] YAMAMOTO - SEKI - IRINO - MATOBA - IIZUKA D103	
		BS				Advanced Course in Environmental Molecular Biology I [J/E] FUKUI MORIKAWA YAMAGUCHI OCHIAI KASAHARA WATANABE SONE YAMAUCHI D102		
	4	ESD	Introduction to Global Environmental Management [E] OKINO & others D102					
ESS			Fundamental Course in Cold Region Sciences [J/E] T WATANABE & others D101	Advanced Course in Environmental Meteorology [J] T WATANABE KAWASHIMA D102	Fundamental Course in Cold Region Sciences [J/E] T WATANABE & others D101			
5	ESD		Introduction to Practical Science for Environment II [J] YAMANAKA D103			☆Introduction to Renewable Energy [E] (Introduction to Environmental Analysis) OKINO FUJII & others D101		

[Important] From 1 April 2020, 8 new subjects has been added (marked ☆). Student enrolling before 2019(Academic year), register subject [Former subject name].(The former subjects written in [J]). Please note : Students enrolling before 2019, cant register unless former subject is written with ☆.
 Time [1st] 8:45-10:15 [2nd] 10:30-12:00 [3rd] 13:00-14:30 [4th] 14:45-16:15 [5th] 16:30-18:00
 Venue [A, B, C, D]Faculty of Environmental Earth Science Bldg. A, B, C, D [LT2F]Institution of Low Temperature Science 2F(215) [LT3F]Institution of Low Temperature Science 3F(N311) [FSC]Field Science Center of Northern Biosphere Bldg. [RB]FSC Research Bldg. 2F [TM] Tomakomai FSC [H]School of Fisheries Sciences [NF]FSC North Administration Section [U]FSC Uryu (Moshiri) [T]FSC Teshio [N]FSC Nakagawa [M]Muran Marine Station
 [INFO]Information Incentive Center
 Language [E]Conducted in English [J/E]Whether it is conducted in English or Japanese will be decided after finishing students registration [J]Conducted in Japanese [*italics in blue*]Classes for English program, open for all students

First Half,
First Semester 2023

		Mon.	Tue.	Wed.	Thu.	Fri.	Intensive courses and other courses (Dates to be determined)					
Second Half, First Semester 2023	1	ESD					Special lecture in Environmental Science Development I [J] Dates (September 4-6) :YAMAGATA (D103)					
		ESS		Advanced Course in Remote Sensing Applications [J]	EBUCHI & others D102	Advanced Course in Hydrologic Cycle in Cryosphere [J]	SHIRAWA MATOBA MATSUZAWA LT2F	Special lecture in Environmental Science Development II [E] Dates (August 7-9) A SATO and YAMASHITA (D101)				
		BS	Advanced Course in Environmental Molecular Biology II [J/E]	TANAKA ITO TAKABAYASHI WASHIO HORI MIWA ONO D101,LT5		Fundamental Course in Molecular Biology [J] <i>Fundamental Course in Molecular Biology [E]</i>	MORIKAWA & others MORIKAWA & others D101 D102	Advanced Course in Agro-Ecosystem Science I (Crop Production) [J/E]	HOSHINO GOTOH HIRATA NAKAMURA FSC 106	Special Lecture in Biosphere Science I [J] : TBD Fundamental Course in Biomass Production [J]: KAWAI (August-September) Special Lecture in Biosphere Science II [J] : TBD		
		EMS		Advanced Course in Environmental Catalytic Chemistry [J/E]	NAKAJIMA D103	Advanced Course in Molecular Photonics and Electronics Science II [J/E]	NAKAMURA D103	Advanced Course in Environmental Nano-Materials Chemistry II [J/E]	KONISHI D103			
	2	ESD		Advanced Course in Environmental Metrology [J]	TOYODA & others C204-1			Advanced Course in Environmental Metrology [J]	TOYODA & others C204-1			
		ESS	Advanced Course in Ocean Dynamics [J]	MITSUDERA D101	Advanced Course in Geophysical Fluid Dynamics [J]	NAKAMURA D102	Advanced Course in Atmospheric Dynamics [J]	HORINOCHI D102	Advanced Course in Hydrologic Cycle in Cryosphere [J]	SHIRAWA MATOBA MATSUZAWA LT2F	Advanced Course in Atmospheric and Oceanographic Data Analysis [J/E]	FUKAMACHI AOKI D102
		BS										
		EMS		Advanced Course in Biomaterials Chemistry I [J/E]	ONODA D103	Advanced Course in Molecular Photonics and Electronics Science II [J/E]	NAKAMURA D103		Advanced Course in Environmental Nano-Materials Chemistry II [J/E]	KONISHI D103		
	3	ESD				<i>Advanced Course in Geoecological Resources [E]</i>	HAYAKAWA C204-2	<i>Advanced Course in Academic English Writing for Environmental Sciences [E]</i>	Renner D101			
		ESS			Advanced Course in Remote Sensing Applications [J]	EBUCHI & others D103	Advanced Course in Polar Oceanography [J]	AOKI TOYODA NAKAYAMA D103	Advanced Course in Environmental Molecular Biology I [J/E]	FLUKUI MORIKAWA YAMAGUCHI OCHIAI KASAHARA WATANABE SONE YAMAUCHI D102		
		BS	Advanced Course in Plant Ecology/Biodiversity Science I [J/E]	AIBA KUBO A809								
		EMS										
	4	ESD										
		ESS			Advanced Course in Environmental Meteorology [J]	T WATANABE KAWASHIMA D102						
		BS	Advanced Course in Plant Ecology/Biodiversity Science I [J/E]	AIBA KUBO A809								
	5	EMS										
		ESD		Introduction to Practical Science for Environment II [J]	YAMANAKA D103				<i>*Introduction to Renewable Energy [E] (Introduction to Environmental Analysis)</i>	OKINO FUJII & others D101		
		ESS										
		BS										

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Venue [A, B, C, D]Faculty of Environmental Earth Science Bldg, A, B, C, D [LT2F]Institution of Low Temperature Science 2F(215) [LT3F]Institution of Low Temperature Science 3F(N311) [FSC]Field Science Center of Northern Biosphere Bldg. [RB]FSC Research Bldg. 2F [TM] Tomakomai FSC [H]School of Fisheries Sciences [NF]FSC North Administration Section [U]FSC Uryu (Moshiri) [T]FSC Teshio [N]FSC Nakagawa [M]Murooran Marine Station [INFO]Information Incentive Center
Language [E]Conducted in English [J/E]Whether it is conducted in English or Japanese will be decided after finishing students registration [J]Conducted in Japanese [*italics in blue*]Classes for English program, open for all students

Second Half,
First Semester 2023

		Mon.	Tue.	Wed.	Thu.	Fri.	Intensive courses and other courses (Dates to be determined)	
First Half, Second Semester 2023	1	AL	Fundamental Course in Environmental Science Research[E] ★ OKINO D102				Fundamental Course in Environmental Science [E]: Garcia Molinos (October 2.3.4) (D201)	
		ESD					Introduction to Practical Science for Environment I [J] YAMANAKA SATAKE (Dates :TBD)	
		ESS		Advanced Course in Ocean Biogeochemistry[E] NISHIOKA WATANABE YAMASHITA C202	*Fundamental Course in Biogeochemistry [E] [Advanced Course in Tropospheric Chemistry] SUZUKI KAMEYAMA MIYAZAKI C202	*Fundamental Course in Biogeochemistry [E] [Advanced Course in Tropospheric Chemistry] SUZUKI KAMEYAMA MIYAZAKI C202	Advanced Course in Ocean Biogeochemistry[E] NISHIOKA WATANABE YAMASHITA C202	*Introduction to Circumpolar North [Advanced Course in Terrestrial Geochemical Cycle][E] : FUKAMACHI and Others (Dates :TBD)
		BS						Advanced Course in Forest Sphere Science IV (Regional Resources Management)[J/E]: T YOSHIDA & others (October)
	2	EMS		Fundamental Course in Materials Science III[E] OKINO D103	Fundamental Course in Materials Science II [E] HIROKAWA D103		Fundamental Course in Materials Science I [E] KATO D103	
		ESD		Introduction to Natural Environmental Studies [J/E] TSUYUZAKI NEGISHI SATO D102			Introduction to Natural Environmental Studies [J/E] TSUYUZAKI NEGISHI SATO D102	
		ESS	Advanced Course in Ocean Dynamics [J] MITSUDERA D102	Advanced Course in Climate Dynamics [J] TANIMOTO C202	Advanced Course in Atmospheric Dynamics [J] HORINOUCHE D102			
		BS	Advanced Course in Animal Ecology II [J/E] NODA AGETSUMA KOZUMI KISHIDA OHDAIHI D101	Advanced Course in Marine Biosphere Science I (Marine Environmental Biogeochemistry) [J/E] KUDO YOSHIMURA TAKAGI D101	Advanced Course in Animal Ecology II [J/E] NODA AGETSUMA KOZUMI KISHIDA OHDAIHI D101	Advanced Course in Marine Biosphere Science I (Marine Environmental Biogeochemistry) [J/E] KUDO YOSHIMURA TAKAGI D101	Advanced Course in Agro-Ecosystem Science II (Livestock Production) [J/E] KAWAI HOSHINO GOTOH FSC 106	
	3	EMS	Advanced Course in Environmental Nano-Materials Chemistry I [J/E] KAMIYA D103	Advanced Course in Biomaterials Chemistry II [J/E] UMEZAWA D103	Advanced Course in Molecular Photonics and Electronics Science I [E] BIJU D103	Advanced Course in Environmental Science III [J/E] TBD D103	Advanced Course in Environmental Nano-Materials Chemistry III [J/E] YAGI D103	
		ESD	Advanced Course in Climate Change Impacts [E] SATO & others C202	Advanced Course in Environmental Conservation [J/E] TSUYUZAKI C204-2	Advanced Course in Watershed Environmental Science [J/E] NEGISHI & others D102	Advanced Course in Watershed Environmental Science [J/E] NEGISHI & others D102	Advanced Course in Environmental Conservation [J/E] TSUYUZAKI C204-2	
		ESS		*Advanced Course in Ecosystems and Environments [E] [Advanced Course in Environmental Analytical Chemistry] CHIKARAISHI TAKIZAWA D103	Advanced Course in Meteorology and Climate in Cold Regions [J] T WATANABE LT2F	Advanced Course in Climate Modeling [J] NAKAMURA KAWASHIMA D103	*Advanced Course in Paleoclimatology [Advanced Course in Paleoclimatology and Biomarker Geochemistry] [E] YAMAMOTO SEKI IRINO D103	
		BS				Advanced Course in Plant Ecology/Biodiversity Science II G KUDO UTSUMI A809		
	4	EMS	Advanced Course in Climate Change Impacts [E] SATO & others C202	Advanced Course of International Science Communication Methods [E] TOYODA Greve Avtar D101		Advanced Course in Applied Ecology [J/E] SENZAKI A809	Advanced Course in Applied Ecology [J/E] SENZAKI A809	
		ESS	Advanced Course in Glacier/Ice Sheet Science [J/E] SUGIYAMA IZUKA MINOWA LT2F	*Advanced Course in Ecosystems and Environments [E] [Advanced Course in Environmental Analytical Chemistry] CHIKARAISHI TAKIZAWA D103	Advanced Course in Meteorology and Climate in Cold Regions [J] T WATANABE LT2F	Advanced Course in Theoretical Glaciology [E] Greve LT313	*Advanced Course in Paleoclimatology [Advanced Course in Paleoclimatology and Biomarker Geochemistry] [E] YAMAMOTO SEKI IRINO D103	
		BS			*Fundamental Course in Biodiversity of Northern Ecosystems [E] G KUDO & others D101	Advanced Course in Plant Ecology/Biodiversity Science II G KUDO UTSUMI A809	*Fundamental Course in Biodiversity of Northern Ecosystems [E] G KUDO & others D101	
		EMS						
	5	ESD		Advanced Course in Practical Science for Environment [J] YAMANAKA D103				
		BS	Fundamental Course in Biological Diversity [J] KOZUMI & others D101	Advanced Course in Ecological Genetics I [J/E] OHARA KOSHIKAWA C202	Fundamental Course in Biological Diversity [J] KOZUMI & others D101	Advanced Course in Ecological Genetics I [J/E] OHARA KOSHIKAWA C202	Fundamental Course in Field Sciences [J/E] YOTSUKURA & others D102	

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Language	[E]Conducted in English [J/E]Whether it is conducted in English or Japanese will be decided after finishing students registration [J]Conducted in Japanese [italics in blue]Classes for English program, open for all students

First Half,
Second Semester 2023

		Mon.	Tue.	Wed.	Thu.	Fri.	Intensive courses and other courses (Dates to be determined)					
Second Half, Second Semester 2023	1	ESD					Special lecture in Environmental Science Development III [E] (Jan 4-7):KAWAKAMI (D201)					
		ESS										
		BS										
	2	EMS		Fundamental Course in Materials Science III[E]	OKINO D103	Fundamental Course in Materials Science II [E]	HIROKAWA D103	Fundamental Course in Materials Science I [E]	KATO D103			
		ESD	Advanced Course in Environmental Adaption [E]	Liu & others D102		Advanced Course in Environmental Adaption [E]	Liu & others D102					
		ESS		Advanced Course in Climate Dynamics [J]	TANIMOTO C202							
	3	BS		Advanced Course in Marine Biosphere Science II [J]	URA HAKODATE		Advanced Course in Marine Biosphere Science II [J]	URA HAKODATE	Advanced Course in Agro-Ecosystem Science II (Livestock Production) [J/E]	KAWAI HOSHINO GOTOH FSC 106		
		EMS	Advanced Course in Environmental Nano-Materials Chemistry I [J/E]	KAMIYA D103	Advanced Course in Biomaterials Chemistry II [J/E]	UMEZAWA D103	Advanced Course in Molecular Photonics and Electronics Science I [E]	BIJU D103	Advanced Course in Molecular Environmental Science III [J/E]	TBD D103	Advanced Course in Environmental Nano-Materials Chemistry III [J/E]	YAGI D103
		ESD	Advanced Course in Environmental Pollution Comparison [E]	TOYODA & others D101	Advanced Course in Frozen Ground Environments [J]	ISHIKAWA D102					Advanced Course in Frozen Ground Environments [J]	ISHIKAWA D102
	4	ESD	Advanced Course in Environmental Pollution Comparison [E]	TOYODA & others D101	Advanced Course of International Science Communication Methods [E]	TOYODA Greve Avtar D101					Advanced Course in Water Resources [E]	WATANABE D101
		ESS							Advanced Course in Theoretical Glaciology [E]	Greve LT313		
		BS										
	5	ESD			Advanced Course in Practical Science for Environment [J]	YAMANAKA D103					Advanced Course in Water Resources [E]	WATANABE D101
		ESS										
		BS	Fundamental Course in Ecology [J/E]	KOSHIKAWA & others D102	Advanced Course in Ecological Genetics II [J]	KOSHIKAWA YOSHIDA C202	Fundamental Course in Ecology [J/E]	KOSHIKAWA & others D102	Advanced Course in Ecological Genetics II [J]	KOSHIKAWA YOSHIDA C202	Fundamental Course in Field Sciences [J/E]	YOTSUKURA & others D102

【Important】	
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Venue	[A, B, C, D]Faculty of Environmental Earth Science Bldg. A, B, C, D [LT2F]Institution of Low Temperature Science 2F(215) [LT3F]Institution of Low Temperature Science 3F(N311) [FSC]Field Science Center of Northern Biosphere Bldg. [RB]FSC Research Bldg. 2F [TM] Tomakomai FSC [H]School of Fisheries Sciences [NF]FSC North Administration Section [U]FSC Uryu (Moshiri) [T]FSC Teshio [N]FSC Nakagawa [M]Muroran Marine Station [INFO]Information Incentive Center
Language	[E]Conducted in English [J/E]Whether it is conducted in English or Japanese will be decided after finishing students registration [J]Conducted in Japanese <i>【italics in blue】</i> Classes for English program, open for all students

Second Half,
Second Semester 2023