

code	Date	Time	Location	Contact	Practical
BS-01	16/10/2019	10.00-13.00	BrambellC4	Anil Shirsat	BSX 2019
BS-02	25/10/2019	10.00-17.00	BrambellC4	Anil Shirsat	BSX 2019
BS-03	25/09/2019	09.00-13.00	Coach to Treborth	Rosanna Robinson	BSX1030
BS-04	10/10/2019	10.00-13.00	Brambell A1 lab	James McDonald	BSX1030
BS-05	10/10/2019	14.00-17.00	Brambell A1 lab	James McDonald	BSX1030
BS-06	21/10/2019	10.00-13.00	Brambell A1 lab	Simon Webster	BSX1030
BS-07	21/10/2019	14.00-17.00	Brambell A1 lab	Simon Webster	BSX1030
BS-08	11/11/2019	10.00-13.00	Brambell A1 lab	Simon Webster	BSX1030
BS-09	11/11/2019	14.00-17.00	Brambell A1 lab	Simon Webster	BSX1030
BS-10	19/11/2019	10.00-13.00	Brambell A1 lab	Simon Webster	BSX1030
BS-11	19/11/2019	14.00-17.00	Brambell A1 lab	Simon Webster	BSX1030
BS-12	03/12/2019	10.00-13.00	Brambell A1 lab	Rosanna Robinson	BSX1030
BS-13	03/12/2019	14.00-17.00	Brambell A1 lab	Rosanna Robinson	BSX1030
BS-14				Rosanna Robinson	BSX1030
BS-15	21/10/2019	8 AM -6 PM	FIELD TRIP	Alexander Georgiev	BSX3153
BS-16	05/11/2019	2PM - 5PM	THODAY 8 & 9	Alexander Georgiev	BSX3153
BS-17	06/11/2019	10 AM - 1PM	THODAY 8 & 9	Alexander Georgiev	BSX3153

BS-18	10/10/2019	2PM - 5 PM	BRAMBELL MUSEUM	Isabelle Winder	BSX3153
BS-19	11/10/2019	2 PM - 5 PM	BRAMBELL MUSEUM	Isabelle Winder	BSX3153
BS-20	14/11/2019	10 AM - 1PM	THODAY F8 AND 9	Isabelle Winder	BSX3153
BS-21	15/11/2019	2PM - 5 PM	THODAY F8 AND 9	Isabelle Winder	BSX3153
BS-22	Thurs 26th Sept	10:00-13:00	Brambell A1	John Mulley	BSX2022
BS-23	Thurs 26th Sept	14:00-17:00	Brambell A1	John Mulley	BSX2022
BS-24	Thurs 3rd Oct	10:00-13:00	Brambell A1	John Mulley	BSX2022
BS-25	Thurs 3rd Oct	14:00-17:00	Brambell A1	John Mulley	BSX2022
BS-26	Tues 12th Nov	10:00-13:00	Brambell B1	Charles Bishop	BSX2022
BS-27	Tues 12th Nov	14:00-17:00	Brambell B1	Charles Bishop	BSX2022
BS-28	Thurs 14th Nov	10:00-13:00	Brambell B1	Charles Bishop	BSX2022
BS-29	Thurs 14th Nov	14:00-17:00	Brambell B1	Charles Bishop	BSX2022
BS-30	Thurs 28th Nov	10:00-13:00	Brambell A1	Anita Malhotra	BSX2022
BS-31	Thurs 28th Nov	14:00-17:00	Brambell A1	Anita Malhotra	BSX2022
BS-32	21/10/2019	10-1pm	A1	Simon Webster	BSX1030
BS-33	21/10/2019	2-5pm	A1	Simon Webster	BSX1030
BS-34	11/11/2019	10-1pm	A1	Simon Webster	BSX1030
BS-35	11/11/2019	2-5pm	A1	Simon Webster	BSX1030
BS-36	19/11/2019	10-1pm	A1	Simon Webster	BSX1030

BS-37	19/11/2019	2-5pm	A1	Simon Webster	BSX1030
BS-38	10/08/2109	10-1pm	B1	Simon webster	BSX3145
BS-39	14/10/2109	2-5pm	B1	Simon Webster	BSX3145
BS-40	11/11/2019	10-1pm	B1	Simon Webster	BSX3145
BS-41	20/11/2019	10-1pm	B1	Simon Webster	BSX3145
BS-42	27/11/2019	10-1pm	B1	Simon Webster	BSX3145
BS-43	25/11/2019	10-1pm	A1	Simon Webster	BNS1004
BS-44	25/11/2019	2-5pm	A1	Simon Webster	BNS1004
BS-45	09/10/2019	9am to 4pm	Field Trip	Alison Cameron	BSX 3157-Ornithology
BS-46	16/10/2019	9am to 4pm	Field trip if weather was bad and it was cancelled on 9th of October, or group work on campus (venue TBC) if weather was good and field work was completed on the 9th	Alison Cameron	BSX 3157-Ornithology
BS-47	07/11/2019	10am - 12	Brambell Museum	Alison Cameron	BSX 3157-Ornithology
BS-48	15/11/2019	9am -12	Thoday F27	Alison Cameron	BSX 3157-Ornithology
BS-49	02/11/2019	3-8pm	Field Trip	Charles Bishop	BSX 3157-Ornithology
BS-50	19/11/2019	14.00-17.00	Bram_C4	Alex Papadopulos	BSX2019
BS-51	20/11/2019	10.00-13.00	Bram_C4	Alex Papadopulos	BSX2019
BS-52	30/09/2019	16:00-18:00	WhelPC_003+002	Si Creer	BNS2002

BS-53	03/10/2019	15:00-17:00	Arts_CR1	Si Creer	BNS2002
BS-54	04/10/2019	9:00-11:00	WhelPC_003+002	Si Creer	BNS2002
BS-55	04/10/2019	15:00-17:00	WhelPC_003+002	Si Creer	BNS2002
BS-56	07/10/2019	16:00-18:00	WhelPC_003+002	Si Creer	BNS2002
BS-57	08/10/2019	9:00-11:00	WhelPC_003+002	Si Creer	BNS2002

BS-58	08/10/2019	13:00-15:00	WhelPC_003+002	Si Creer	BNS2002
BS-59	10/10/2019	9:00-11:00	WhelPC_003+002	Si Creer	BNS2002
BS-60	09/10/2019	9:00-12:00	Arts_CR1	Graeme Shannon	BNS3004
BS-61	11/10/2019	14:00-17:00	Arts_CR1	Graeme Shannon	BNS3004
BS-62	15/10/2019	11:00-13:00	AD-035	Graeme Shannon	BNS3004
BS-63	18/10/2019	15:00-17:00	AD_013	Graeme Shannon	BNS3004
BS-64	19/11/2019	10:00-13:00	Bram B1	Henk Braig	BSX-3159
BS-65	26/11/2019	10:00-13:00	Bram A1	Henk Braig	BSX-3159
BS-66	03/12/2019	10:00-13:00	Bram B1	Henk Braig	BSX-3159
BS-67	07/10/2019	1300-1500	Management Centre, Alun 2.01	Dan Thornham	BSX2021
BS-68	08/10/2019	1300-1500	Wheldon Teaching space 5	Dan Thornham	BSX2021
BS-69	08/10/2019	1600-1800	Thoday F1	Dan Thornham	BSX2021

BS-70	09/10/2019	1100-1300	Thoday F1	Dan Thornham	BSX2021
BS-71	14/10/2019	1400-1600	Wheldon Computer lab 002	Dan Thornham	BSX2021
BS-72	14/10/2019	1600-1800	Wheldon Computer lab 002	Dan Thornham	BSX2021
BS-73	15/10/2019	1000-1200	Wheldon Computer lab 002	Dan Thornham	BSX2021
BS-74	17/10/2019	0900-1100	Wheldon Computer lab 002	Dan Thornham	BSX2021
BS-75	04/11/2019	1300-1500	Wheldon Teaching space 5	Dan Thornham	BSX2021
BS-76	05/11/2019	1300-1500	Wheldon Teaching space 5	Dan Thornham	BSX2021
BS-77	05/11/2019	1600-1800	Thoday F1	Dan Thornham	BSX2021
BS-78	06/11/2019	1100-1300	Thoday F1	Dan Thornham	BSX2021
BS-79	21/11/2019	1100-1300	Wheldon Computer lab 002	Dan Thornham	BSX2021
BS-80	21/11/2019	1400-1600	Main Arts Computer lab 1	Dan Thornham	BSX2021
BS-81	21/11/2019	1600-1800	Main Arts Computer lab 1	Dan Thornham	BSX2021
BS-82	22/11/2019	1100-1300	Wheldon Computer lab 002	Dan Thornham	BSX2021
BS-83	02/12/2019	1400-1600	Wheldon Computer lab 002	Dan Thornham	BSX2021
BS-84	02/12/2019	1600-1800	Wheldon Computer lab 002	Dan Thornham	BSX2021
BS-85	03/12/2019	1000-1200	Wheldon Computer lab 002	Dan Thornham	BSX2021
BS-86	05/12/2019	0900-1100	Wheldon Computer lab 002	Dan Thornham	BSX2021
BS-87	09/12/2019	1530-1800	Wheldon Computer lab 002	Dan Thornham	BSX2021
BS-88	11/12/2019	1000-1230	Wheldon Computer lab 002	Dan Thornham	BSX2021

BS-89	13/12/2019	1300-1530	Wheldon Computer lab 002	Dan Thornham	BSX2021
BS-90	13/12/2019	1530-1800	Wheldon Computer lab 002	Dan Thornham	BSX2021
BS-95	15/10/2019	1200-1400	tbc	Dan Thornham	bsx-2021
BS-96				j.smith@bangor.ac.uk	BNS1002
BS-97				j.smith@bangor.ac.uk	BNS1002
BS-98				j.smith@bangor.ac.uk	BNS1002

Skills	Other Notes	Demonstrators needed	Confirmed Demonstrators	Total hours (=demonstrators *practical length, for staff use)
Analysis of human single nucleotide polymorphisms: DNA extractions from cheek , PCR, Restriction enzyme analysis, Gel electrophoresis	No marking	1	Catarina Gomes Seidi	3
Analysis of human single nucleotide polymorphisms: DNA extractions from cheek , PCR, Restriction enzyme analysis, Gel electrophoresis	No marking	1	Catarina Gomes Seidi	7
any wildlife ID and demonstrations: e.g. birdspotting; pond dipping, quadrat throwing, tree-identification, pitfall trapping - need to suggest activity and discuss with Rosanna in advance.	Introduce small groups of students, informally to different aspects of wildlife in Treborth	10		40
Microbiology - Gram stain	No marking	3		9
Microbiology - Gram stain	No marking	3		9
Arthropod diversity	No marking	3		9
Arthropod diversity	No marking	3		9
Arthropod diversity 2	No marking	3		9
Arthropod diversity 2	No marking	3		9
Mussel cilliary movement	No marking	3		9
Mussel cilliary movement	No marking	3		9
Animal behaviour	Marking-see below	3		9
Animal behaviour	Marking- see below	3		9
Practical reports	Marking (+ training) approx 200 reports, 20-30 mins each	up to 10		100
Monkey watching: Field work; behavioural observation techniques (focal animal sampling, group scan sampling); Primate behaviour	No marking; must attend a 1 hour prep session TBA before the trip	4		40
Behavioral data analysis: Analysis of simple animal activity budget data; Excel pivot tables; visual presentation of data	No marking; mandatory 1 hour briefing before the first practical; must be able to attend all three sessions	2		7
Behavioural data analysis: Analysis of simple animal activity budget data; Excel pivot tables; visual presentation of data	No marking; mandatory 1 hour briefing before the first practical; must be able to attend all three sessions	2		7

Assisting with a museum practical on primate morphology (some basic familiarity with mammal skeletal structure would be useful)	No marking; mandatory 1 hour briefing before the first practical; must be able to attend all three sessions	2	7
Assisting with a museum practical on primate morphology (some basic familiarity with mammal skeletal structure would be useful)	No marking; mandatory 1 hour briefing before the first practical; must be able to attend all three sessions	2	7
GIS	No marking; mandatory 1 hour briefing before the first practical; must be able to attend all three sessions	2	7
GIS	No marking; mandatory 1 hour briefing before the first practical; must be able to attend all three sessions	2	7
Chordates, early vertebrates, jawless fish - observation and drawing, some basic calculations	No marking	3	9
Chordates, early vertebrates, jawless fish - observation and drawing, some basic calculations	No marking	3	9
Fish diversity - morphological comparison of three fish species, production of scientific drawings	Marking	3	9
Fish diversity - morphological comparison of three fish species, production of scientific drawings	Marking	3	9
Chicken Dissection - functional anatomy of birds and internal organs, production of scientific drawings	marking	3	9
Chicken Dissection - functional anatomy of birds and internal organs, production of scientific drawings	marking	3	9
Chicken Dissection - functional anatomy of birds and internal organs, production of scientific drawings	marking	3	9
Chicken Dissection - functional anatomy of birds and internal organs, production of scientific drawings	marking	3	9
Mammal & Reptile & Amphibian diversity	no marking	1	3
Mammal & Reptile & Amphibian diversity	no marking	1	3
Arthropod diversity	No marking	3	9
Arthropod diversity	No marking	3	9
Arthropod diversity 2	No marking	3	9
Arthropod diversity 2	No marking	3	9
Mussel ciliary movement	No marking	3	9

Mussel ciliary movement	No marking	3		9
Dogfish morphology and internal anatomy, dissections, drawing, interpretation				
Trout morphology and internal anatomy, dissections, drawing, interpretation	No marking	2		6
GnRH gene expression, RNA purif.	No marking	2		6
GnRH gene expression, cDNA , PCR	No marking	2		6
GnRH gene expression, electrophoresis, interpretation of results, bioinformatics	No marking	2		6
Onion root mitosis	Marking	3		9
Onion root mitosis	Marking	3		9
Cors Ddyga Reserve Management plan	1 hour prep time	2		16
Cors Ddyga Reserve Management plan		2		16
Bird Species Poster Session	2 hours marking time	2		8
Reserve Management Plan Group talks and Discussion Session		2		6
Visit to Raven roost at Newburgh Forest	no marking	1		5.5
Plant Molecular Biology (DNA extractions/PCR)	No marking	2		6
Plant Molecular Biology (DNA extractions/PCR)	No marking	2		6
Spp. Delimitation/bioinformatics	Marking	3	Abdullah Munawar Rafiq; G Kirthana Pillay; Paul George	2

Spp. Delimitation/bioinformatics	Marking	3	Abdullah Munawar Rafiq; G Kirthana Pillay; Paul George	2
Spp. Delimitation/bioinformatics	Marking	3	Abdullah Munawar Rafiq; G Kirthana Pillay; Paul George	2
Spp. Delimitation/bioinformatics	Marking	3	Abdullah Munawar Rafiq; G Kirthana Pillay; Paul George	2
Spp. Delimitation/bioinformatics	Marking	3	Abdullah Munawar Rafiq; G Kirthana Pillay; Paul George	2
Spp. Delimitation/bioinformatics	Marking	3	Abdullah Munawar Rafiq; G Kirthana Pillay; Paul George	2

Spp. Delimitation/bioinformatics	Marking	3	Abdullah Munawar Rafiq; G Kirthana Pillay; Paul George	2
Spp. Delimitation/bioinformatics	Marking	3	Abdullah Munawar Rafiq; G Kirthana Pillay; Paul George	2
R statistics package	No marking	2	Owain Barton & Amy Gresham	3
R statistics package	No marking	2	Owain Barton & Amy Gresham	3
R statistics package	No marking	2	Owain Barton & Amy Gresham	2
R statistics package	No marking	2	Owain Barton & Amy Gresham	2
Crabs and parasitic castration	No marking	1		3
Fish parasites: dogfish, mackerel	No marking	1		3
Microscopy of blood parasites	No marking	1		3
Basic statistics - data types; non/parametric data	please be available for a prep meeting the week before the workshop/s	2		4
Basic statistics - data types; non/parametric data	please be available for a prep meeting the week before the workshop/s	2		4
Basic statistics - data types; non/parametric data	please be available for a prep meeting the week before the workshop/s	2		4

Basic statistics - data types; non/parametric data	please be available for a prep meeting the week before the workshop/s	2		4
Basic statistics - choosing tests; drawing graphs	please be available for a prep meeting the week before the workshop/s	2		4
Basic statistics - choosing tests; drawing graphs	please be available for a prep meeting the week before the workshop/s	2		4
Basic statistics - choosing tests; drawing graphs	please be available for a prep meeting the week before the workshop/s	2		4
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Basic statistics - choosing tests; drawing graphs	please be available for a prep meeting the week before the workshop/s	2		4
Basic statistics - choosing tests; drawing graphs	please be available for a prep meeting the week before the workshop/s	2		4
Basic statistics - interpreting & reporting results	please be available for a prep meeting the week before the workshop/s	2		4
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Basic statistics - interpreting & reporting results	please be available for a prep meeting the week before the workshop/s	2		4
Basic statistics - interpreting & reporting results	please be available for a prep meeting the week before the workshop/s	2		4
invigilation	please be available for a prep meeting the week before the workshop/s	2		4
invigilation	please be available for a prep meeting the week before the workshop/s	2		4

invigilation	please be available for a prep meeting the week before the workshop/s	2		4
invigilation	please be available for a prep meeting the week before the workshop/s	2		4
critical evaluation of written science; marking essays on a variety of topics	Marking only	5 to 10		90
Ability to interpret skulls and morphology (though full training will be given)	Full training will be available and should be attended (an hour in the week before). Marking could be available if willing - would be helpful	5		10
Ability to interpret skulls and morphology (though full training will be given)	Full training will be available. Marking could be available if willing - would be helpful.	5		10
Ability to interpret skulls and morphology (though full training will be given)	Full training will be available. Marking could be available if willing - would be helpful	5		10