

Department of **Biology**  
Undergraduate - Biology  
FACULTY OF MATHEMATICS AND NATURAL SCIENCES  
**INSTITUT TEKNOLOGI SEPULUH NOPEMBER (ITS)**

Smt	Code	Courses	Credits
1	IG1101	Islam Education*	2
1	IG1102	Protestant Education*	2
1	IG1103	Catholic Education*	2
1	IG1104	Hindu Education*	2
1	IG1105	Buddha Education*	2
1	IG1106	Concept of Nationalism	3
1	IG1108	English	3
1	IG1110	Khonghucu Education*	2
1	SB1301	Biology	3
1	SB1303	Ecology	2
1	SK1207	Chemistry	2
1	SM1203	Calculus I	3
2	IG1107	Concept of Scientific Technology and Communication	3
2	SB1304	Biochemistry	3
2	SB1320	Plant Structure	3
2	SB1330	Animal Structure	4
2	SF1203	Physics I	3
2	SK1208	Organic Chemistry	2
3	SB1305	Cell Biology	3
3	SB1306	Cell Biology	3
3	SB1321	Plant Development	4
3	SB1323	Plant Systematic	4
3	SB1331	Animal Embryology	3
3	SB1333	Animal Systematic	4
4	SB1201	Biostatistics	3
4	SB1308	Genetics	4
4	SB1310	Evolution	2
4	SB1340	Microbiology	3
4	SB1350	Animal Ecology	3
4	SB1352	Plant Ecology	3
5	SB1307	Molecular Biology	3

Smt	Code	Courses	Credits
5	SB1325	Plant Physiology	4
5	SB1335	Animal Physiology	4
5	SB1341	Environmental Microbiology	3
5	SB1351	Biomonitoring	4
6	SB1312	Research Method	2
6	SB1314	Biotechnology	2
6	SB1342	Microbial Physiology	3
6	SB1344	Microbial Systematic	3
6	SB1354	SDA Management	4
7	IG1109	Technopreneurship	3
7	SB1343	Microbial Industry	3
7	SB1401	Geology**	3
7	SB1403	Oceanography**	3
7	SB1411	Plant Management**	3
7	SB1413	Phytohormone**	3
7	SB1415	Algology**	3
7	SB1417	Plant Stress Physiology**	3
7	SB1419	Vegetable Pesticide**	2
7	SB1421	Plant Pathogenicity Response**	2
7	SB1423	Microtechnique**	3
7	SB1431	Marine Natural Products**	2
7	SB1433	Entomology**	3
7	SB1435	Marine Invertebrates**	3
7	SB1437	Ichtiology**	3
7	SB1439	Aquaculture**	3
7	SB1441	Pest and diseases of fishes**	3
7	SB1443	Endocrinology**	2
7	SB1451	Bioremediation**	3
7	SB1453	Khamir Biology**	3
7	SB1455	Enzymology**	3
7	SB1457	Marine Microbiology**	2

Smt	Code	Courses	Credits
7	SB1459	Microbe Analysis Technique**	3
7	SB1461	Microbial Interactions**	3
7	SB1463	Land Microbiology**	3
7	SB1471	Marine Biology**	3
7	SB1473	Biogeography**	2
7	SB1475	Coral Reef**	3
7	SB1477	Limnology**	3
7	SB1479	Insect Ecology**	2
7	SB1481	Diving Technique**	2
7	SB1483	Remote Sensing**	2
7	SB1485	Marine Ecology**	2
7	SB1501	Practical Work	2
7	SB1503	Seminar	2
8	SB1402	Water Sports**	1
8	SB1410	Biofertilizer**	3
8	SB1412	Plants and Mycorrhizae**	3
8	SB1414	Biology of Mangrove**	3
8	SB1416	Plant In-Vitri Culture**	3
8	SB1418	Plant Metabolite Biosynthesis**	2
8	SB1420	Vegetable Fuel Biotechnology**	2
8	SB1422	Plant Genomics**	3
8	SB1430	Animal Reproduction Technology**	2
8	SB1432	Animal Cell Culture**	2
8	SB1434	Animal Histopathology**	3
8	SB1436	Ethology**	2
8	SB1438	Protozoology**	2
8	SB1440	Experimental Embryology**	3
8	SB1442	Ornithology**	2
8	SB1450	Metalomik Microbes**	2
8	SB1452	Bacteriology**	3
8	SB1454	Micology**	3

\* Select one of those with stars

\*\* Elective courses

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Smt	Code	Courses	Credits
8	SB1456	Virology**	2
8	SB1458	Fermentation Technology**	3
8	SB1460	Food Microbiology**	2
8	SB1470	Wetland Ecology**	2

Smt	Code	Courses	Credits
8	SB1472	Animal and Plant Interaction**	2
8	SB1474	Bioconservation**	2
8	SB1476	Tropical Forest Ecology**	2
8	SB1478	Plankton Ecology**	2
8	SB1480	Population Ecology**	2

Smt	Code	Courses	Credits
8	SB1482	Introduction to Environmental Impact Assessment**	2
8	SB1484	Benthic Ecology**	2
8	SB1510	Final Project	6

\* Select one of those with stars

\*\* Elective courses