MODULE PORTOFOLIO

ODD SEMESTER ACADEMIC YEAR 2020/2021

MODULE NAME	:	Programming and Algorithm	Lecture
MODULE CODE	:	SST-105	
CLASS	:	2020	
SEMESTER	:	1	
DATE	:	15 January 2021	Rahmadi Yotenka, M.Sc.

PROGRAM LEARNING OUTCOME AND COURSE OUTCOME :

PLO: (Software) Mastering at least two statistical software, including software based on open source

CO: After completing this course, the students have the ability to:
CO 1. explain the concept of the algorithm, presentation of the algorithm, and the basic structure of the algorithm
CO 2. perform data management with the R program
CO 3. explore the descriptive statistics with the R program

Mapping CO and PLO

CO	PLO											
	E	**N**	**T**	**H**	**U**	**S**	**I**	**A**	**S**	**T**	**I**	**C**
CO1									√			
CO2									√			
CO3									√			

LEARNING STRATEGIES : This course was done with several strategies such as discussion, presentation, and group project.

ASSESSMENT :

The final mark will be weighted as follows:

No	Assessment components	Assessment types	Weight (percentage)
1	CO 1	Assignment	20%
2	CO 2	Quiz, Midterm Exam	30%
3	CO 3	Assignment, Final Exam	50%

CALCULATION PROGRAM LEARNING OUTCOME :

The calculation of CO and PLO for each student:

No	**NIM**	**CO1**	**CO2**	**CO3**	**PLO**
1	20611001	75	88	76.8	79.8
2	20611002	90	79	85.2	84.3
3	20611003	90	86.8	93	90.54
4	20611004	90	88	76.6	82.7
5	20611005	90	76	72.4	77
6	20611006	90	76	70	75.8
7	20611008	75	70	74.8	73.4
8	20611010	75	79	79	78.2
9	20611013	75	79	71.8	74.6
10	20611014	90	82	74.2	79.7

			11	20611016	75	76	59.8	67.7	
			12	20611017	80	79	62.2	70.8	
			13	20611018	80	76	73.8	75.7	
			14	20611019	90	79	80.4	81.9	
			15	20611020	90	76	76.2	78.9	
			16	20611022	90	82	76.6	80.9	
			17	20611030	80	76	62.2	69.9	
			18	20611033	80	79	77.2	78.3	
			19	20611035	80	70	79.6	76.8	
			20	20611036	80	76	64.6	71.1	
			21	20611037	90	80.8	76.6	80.54	
			22	20611038	90	70	81.4	79.7	
			23	20611040	90	79	74.2	78.8	
			24	20611041	90	82	64.6	74.9	
			25	20611042	90	79	69.4	76.4	
			26	20611043	75	70	67	69.5	
			27	20611044	90	85	77.2	82.1	
			28	20611046	80	76	67.6	72.6	
			29	20611047	80	79	72.4	75.9	
			30	20611048	80	70	69.4	71.7	
			31	20611051	75	76	70	72.8	
			32	20611052	80	82	64.6	72.9	
			33	20611053	90	70	59.8	68.9	
			34	20611054	90	85	69	78	
			35	20611057	90	82	78	81.6	
			36	20611061	75	70	64.6	68.3	
			37	20611062	80	79	76.6	78	
			38	20611063	75	70	67	69.5	
			39	20611064	75	70	60.4	66.2	
			40	20611066	80	70	79	76.5	
			41	20611068	100	68	59.6	70.2	
			42	20611069	100	71	66.8	74.7	
			43	20611070	100	72.8	69.8	76.74	
			44	20611071	100	62	66.2	71.7	
			45	20611072	100	72.8	63.8	73.74	
			46	20611075	100	62	64.4	70.8	
			47	20611076	100	68	70	75.4	

			48	20611077	100	74	62.2	73.3	
			49	20611078	100	71	72.4	77.5	
			50	20611079	100	71	61.4	72	
			51	20611080	100	62	66.2	71.7	
			52	20611082	100	68	71	75.9	
			53	20611084	100	71	66.8	74.7	
			54	20611085	100	68	66.8	73.8	
			55	20611086	100	71	69.2	75.9	
			56	20611087	100	68	66.2	73.5	
			57	20611088	100	68	83	81.9	
			58	20611090	100	65	73.4	76.2	
			59	20611093	100	68	71	75.9	
			60	20611095	100	71	82.4	82.5	
			61	20611096	100	72.8	69.2	76.44	
			62	20611097	100	68	66.2	73.5	
			63	20611099	100	68	69.2	75	
			64	20611100	100	68	71	75.9	
			65	20611102	100	71	73.4	78	
			66	20611106	100	68	69.2	75	
			67	20611107	100	72.8	66.2	74.94	
			68	20611108	100	68	68.6	74.7	
			69	20611109	100	74	68.6	76.5	
			70	20611110	100	68	59	69.9	
			71	20611111	100	68	57.8	69.3	
			72	20611112	100	68	69.8	75.3	
			73	20611113	100	72.8	60.2	71.94	
			74	20611114	100	71	58.2	70.4	
			75	20611115	100	68	39	59.9	
			76	20611116	100	68	68.4	74.6	
			77	20611117	100	65	73.4	76.2	
			78	20611118	100	68	66.2	73.5	
			79	20611119	100	65	73.4	76.2	
			80	20611120	100	62	66.2	71.7	
			81	20611121	100	62	59	68.1	
			82	19611076	70	72.8	70.2	70.94	
			83	20611122	60	89	83	80.2	
			84	20611123	50	72.8	85.4	74.54	

			85	20611124	60	68	69.8	67.3	
			86	20611125	70	68	67.4	68.1	
			87	20611126	100	68	79.4	80.1	
			88	20611127	70	68	74.6	71.7	
			89	20611129	70	69.8	67.4	68.64	
			90	20611130	70	69.8	75.2	72.54	
			91	20611131	70	62	69.8	67.5	
			92	20611132	50	62	69.8	63.5	
			93	20611133	60	62	72.2	66.7	
			94	20611134	70	72.8	81.8	76.74	
			95	20611135	70	68	69.8	69.3	
			96	20611136	70	72.8	68	69.84	
			97	20611137	60	60.8	65	62.74	
			98	20611138	50	62	72.8	65	
			99	20611139	70	68	69.8	69.3	
			100	20611140	60	72.8	74.6	71.14	
			101	20611141	60	71	72.2	69.4	
			102	20611142	70	62	72.2	68.7	
			103	20611143	85	71	77.6	77.1	
			104	20611144	70	72.8	72.8	72.24	
			105	20611145	85	72.2	74	75.66	
			106	20611146	85	71	70.4	73.5	
			107	20611147	85	68	75.2	75	
			108	20611148	70	72.8	72.8	72.24	
			109	20611149	60	72.8	88.4	78.04	
			110	20611150	70	68	74.6	71.7	
			111	20611151	60	62	65	63.1	
			112	20611152	60	68	74.6	69.7	
			113	20611153	70	62	69.8	67.5	
			114	20611154	70	68	83.6	76.2	
			115	20611155	60	71	77.6	72.1	
			116	20611156	70	68	72.8	70.8	
			117	20611157	60	74	65	66.7	
			118	20611158	50	77	79.2	72.7	
			119	20611159	50	68	74.4	67.6	
			120	20611160	70	71	78.6	74.6	
			121	20611161	70	72.8	79.2	75.44	

			122	20611162	100	69	72.8	77.1	
			123	20611163	100	75	68	76.5	
			124	20611164	100	72.6	63.2	73.38	
			125	20611165	100	75	75.2	80.1	
			126	20611166	100	72.6	57.8	70.68	
			127	20611167	100	72	55.4	69.3	
			128	20611168	100	66	70.4	75	
			129	20611170	100	75	69.8	77.4	
			130	20611171	100	74.4	72.2	78.42	
			131	20611172	100	69	57.8	69.6	
			132	20611173	100	69	70.4	75.9	
			133	20611174	100	83.4	75.2	82.62	
			134	20611175	100	75	57.8	71.4	
			135	20611176	100	75	62.6	73.8	
			136	20611177	100	68.4	77.6	79.32	
			137	20611178	100	75	80	82.5	
			138	20611182	100	72	60.2	71.7	
			139	20611183	100	71.4	55.4	69.12	
			140	20611184	100	75	77	81	
			141	20611185	100	69	67.4	74.4	
			142	20611186	100	69	78.8	80.1	
			143	20611187	100	75	65	75	
			144	20611188	100	72	69.8	76.5	
			145	20611189	100	72	65.2	74.2	
			146	20611190	100	75	64.6	74.8	
			147	20611191	100	78	80.8	83.8	
			148	20611192	100	54	59.8	66.1	
			149	20611193	100	66	69.8	74.7	
			150	20611194	100	76.2	69.8	77.76	
			151	20611195	100	81	57.8	73.2	
			152	20611197	100	72	65	74.1	
			153	20611198	100	75	83.6	84.3	
			154	20611199	100	75	55.4	70.2	
			155	20611200	100	78	62.6	74.7	
			156	20611201	100	75	67.4	76.2	
			157	20611202	100	69	62.6	72	
			158	20611203	100	75	65	75	

159	20611205	100	75	75.2	80.1
160	20611206	100	78	63.2	75
161	20611207	100	72	69.4	76.3
162	20611208	100	69	72.4	76.9
163	20611209	100	69	67.6	74.5
164	20611210	100	69	62.6	72
165	20611211	100	75	57.8	71.4
166	20611212	100	72	67.4	75.3
167	20611213	100	75	59.8	72.4
168	20611214	100	68.4	69.4	75.22
169	20611215	100	78	69.4	78.1
170	20611216	100	78	62.6	74.7

Achievement of PLO in Design of Experiment course Academic Year 2020/2021

Design of Experiment	**E**	**N**	**T**	**H**	**U**	**S**	**I**	**A**	**S**	**T**	**I**	**C**
CO 1									88.29			
CO 2									72.05			
CO 3									69.89			
Achievement of PLO									**74.22**			

LEARNING OUTCOME ANALYSIS :

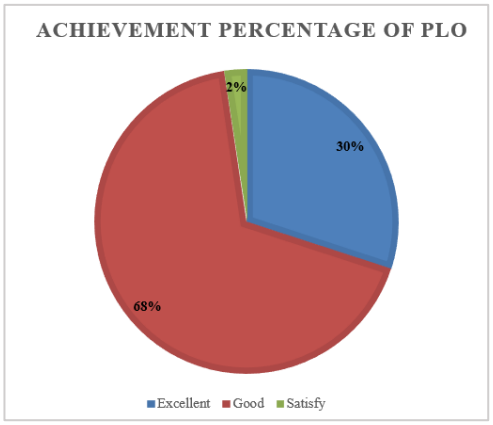
PLO Assessment Rubric

PLO	Description	Excellent	Good	Satisfy	Fail
Software	Mastering at least two statistical software, including software based on open source	Students have the ability to explain the concept of the algorithm, presentation of the algorithm, and the basic structure of the algorithm, perform data management with the R program, and explore the descriptive statistics with the R program	Students have the ability to explain the concept of the algorithm, presentation of the algorithm, and the basic structure of the algorithm, perform data management with the R program, and explore the descriptive statistics with score at least 65.00	Students have the ability to explain the concept of the algorithm, presentation of the algorithm, and the basic structure of the algorithm, perform data management with the R program, and explore the descriptive statistics with score at least 55.00	Students have the ability to explain the concept of the algorithm, presentation of the algorithm, and the basic structure of the algorithm, perform data management with the R program, and explore the descriptive statistics with score

		with score at least 76.25	and less than 76.25	and less than 76.25	less than 55.00.

Achievement number of PLO

	Number of students	Percentage (%)
Excellent	51	30.00
Good	115	67.65
Satisfy	4	2.35
Fail	0	0.00
Total	170	100.00



STUDENT'S LEARNING PERFORMANCE ANALYSIS	:	From the 170 students who took this course, around 30% of the students met the very good criteria for PLO Software. No one considers a failure. However, some students were still found in the satisfied category. Students have difficulty in performing programming simulations to solve problems in statistics using R, especially exploring descriptive statistics with the R program
RECOMMENDATION FOR FUTURE LEARNING	:	There is a recommendation for better course in the future that motivates students to understand perform data management with the R program and perform programming simulations to solve problems in statistics using R.
RECOMMENDATION FOR INSTITUTION	:	Recommendation for institution is by giving more chance for lecturer to develop more online learning materials.