Appendix C.7.2 Module Description: Analisis Kelangsungan Hidup

Module name	Course Module
Module level, if applicable	Sarjana Kesehatan Masyarakat (S.KM.)
Code, if applicable	403K1222
Subtitle, if applicable	-
Course, if applicable	Analisis Kelangsungan Hidup
Semester(s) in which the module is taught	VII
Person responsible for the module	Prof. Dr. H.M.Tahir Abdullah, M.Sc, MSPH
Lecturer	1. Prof. Dr. H.M.Tahir Abdullah, M.Sc, MSPH - KTA 2. dr. Muhammad Ikhsan, MS., PKK
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a compulsory course and offered in the 7th semester.
Type of teaching, contact hours	Metode pengajaran yang digunakan dalam mata kuliah ini adalah: - Ceramah dan diskusi - Tugas terstruktur - Belajar mandiri Jumlah kelas untuk perkuliahan kurang lebih 8 mahasiswa, terdiri atas Jam kontak untuk kuliah adalah 23 jam, tugas 24 jam, dan belajar mandiri 24 jam.
Workload	Untuk mata kuliah ini, mahasiswa diharuskan memenuhi minimal 71 jam dalam satu semester, yang terdiri dari: - 23 jam untuk kuliah, - 24 jam untuk tugas terstruktur, - 24 jam untuk belajar mandiri.
Credit points	2 SKS (setara dengan 3,6 ECTS)
Requirements according to the examination Regulations	- Mahasiswa harus telah mengikuti semua kelas dan menyerahkan semua tugas kelas yang dijadwalkan sebelum ulangan tengah dan akhir semester. - Kehadiran 80% materi memenuhi syarat untuk mengikuti ujian
Recommended prerequisites	-
Module objectives/intended learning outcomes	Setelah menyelesaikan mata kuliah ini, mahasiswa diharapkan: **S1 :** Berkontribusi dalam peningkatan derajat kesehatan masyarakat secara mandiri, disiplin, dan bertanggung jawab berrdasarkan Pancasila. **CLO1:** Mampu memahami dan menyajikan penggunaan analisis kelangsungan hidup dalam masyarakat secara mandiri dan disiplin **P1**: Mampu menjelaskan konsep dasar ilmu kesehatan masyarakat dalam peningkatan status kesehatan masyarakat; **CLO2:** Mampu menjelaskan dan menguraikan konsep analisis kelangsungan hidup dalam peningkatan status kesehatan masyarakat

Content	Students will learn about: - Ruang lingkup, defenisi dan fungsi Analisis Kelangsungan Hidup (Survival Analisys) - Jenis analisis kelangsungan hidup - Perhitungan mortalitas - Standarisasi mortalitas - Konsep table kematian - Abridged Life table - Cara lay out data analisys survival - Perhitungan data censor - Perhitungan survival - Perhitungan Kaplan Meyer - Perhitungan Cox regression - Penerapan analisis kelangsungan hidup dalam ASI exclusif
Forms of Assessment	1. Structured assignments: 40% 2. Individual and group presentation: 20% 3. Written exam: 30% 4. Class attendance and participation: 10%
Study and examination requirements and forms of examination	Study and examination requirements: - Students must attend 15 minutes before the class starts. - Students must switch off all electronic devices. - Students must inform the lecturer if they will not attend the class due to sickness, etc. - Students must submit all class assignments before the deadline. - Students must attend the exam to get final grade. Form of examination: Written exam: Essay
Media employed	Power Point Presentation.
Reading list	1. Chin Long Chiang, 1984, The Life Table and Its Application.. 1th Edition, Universtiy of California. Berkeley. 2. David G. Kleinbaum,. Mitchel Klein ,. 1996, Survival Analysis A Self-Learning Text ., 2th Edition, Springer, New York. 3. Eland_Johnson, Regina,. Norman L Johnson,. 1980,. Survival Models and Data Analysis. Edition, John Wiley and Sons. New York, Toronto. 4. Mosley, W Henry, Lincoln C Chen,. 1983. Child Survival Strategies fo Research., Population and Development Review. 5. Singarimbun, Masri , 1988. Kelangsungan Hidup Anak. Berbagai Teori, Pendekatan, dan Kebijaksanaan. Gadjah Mada University Press. Yogyakarta.

Course Learning Outcome Assessment of Learning Outcomes for Course Modules

Course Module Name **:** Analisis Kelangsungan Hidup
Code **:** 403K1222
Semester **:** VII
Person responsible for the module **:** Prof. Dr. H.M.Tahir Abdullah, M.Sc, MSPH
Lecturers **:** 1. Prof. Dr. H.M.Tahir Abdullah, M.Sc, MSPH - KTA
2. dr. Muhammad Ikhsan, MS., PKK

Intended Learning Outcomes	Course Module Objectives	List of Assessments	List of Rubrics
S1: Berkontribusi dalam peningkatan derajat kesehatan masyarakat secara mandiri, disiplin, dan bertanggung jawab berdasarkan Pancasila	Mampu memahami dan menyajikan penggunaan analisis kelangsungan hidup dalam masyarakat secara mandiri dan disiplin	**Written exam:** Essay Test. - Mode of delivery: Online through Learning Management System (LMS) & paper-based exam. - Question must be completed within 50 minute. **Assignment:** - Paper that focused on "Menyajikan penggunaan analisis survival pada ASI Ekslusif"	**Essay Test:** - **Got 5 point with the correct and point answer each question** **Rubric for paper** **Rubric for oral presentation** **Rubric for class participation**
P1: Mampu menjelaskan konsep dasar ilmu kesehatan masyarakat dalam peningkatan status kesehatan masyarakat	Mampu menjelaskan dan menguraikan konsep analisis kelangsungan hidup dalam peningkatan status kesehatan masyarakat	**Written exam:** Essay Test. - Mode of delivery: Online through Learning Management System (LMS) & paper-based exam. - Question must be completed within 50 minute. **Assignment:** - Paper that focused on "Berdasarkan analisis kasus yang diberikan buat dan sajikanlah abdriged tabel kematian sesuai dengan perhitungan *Lifetable*" - Kuis	**Essay Test:** - **Got 5 point with the correct and point answer each question** **Rubric for paper** **Rubric for oral presentation** **Rubric for class participation**

Example of Essay Test

1. Jelaskan fungsi analisis kelangsungan hidup!
2. Jelaskan konsep data layout analisis survival!
3. Jelaskan konsep standarisasi mortalitas kesehatan reproduksi!
4. Jelaskan penggunaan analisis survival pada analisis kesehatan masyarakat!

Contoh Soal Tugas

1. Complete the Lifetable
   a. Find the probability of dying
   b. Find observed expectation of life

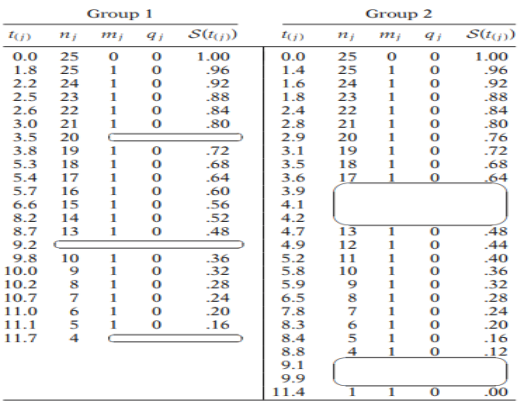
Interval since diagnosis	Number living at time (X)	Probability of dying	Number dying	Fraction of last year	Number of years lived in	Number of years lived beyond	Observed expectation of life
0-1	100,000		24,254	0.5	87,873	1,289,575	
1-2	75,746		13,743	0.5	68,875	1,201,702	
2-3	62,003		6,388	0.5	58,809	1,132,827	
3-4	55,615		4,770	0.5	53,230	1,074,018	
4-5	50,845		3,261	0.5	49,215	1,020,788	
5-6	47,584		2,769	0.5	46,200	971,573	
6-7	44,815		1,961	0.5	43,835	925,373	
7-8	42,854		1,851	0.5	41,929	881,538	
8-9	41,003		1,381	0.5	40,313	839,609	
9-10	39,622		1,844	0.5	38,700	799,296	
10-11	37,778		1,657	0.5	36,900	760,596	
11-12	36,121		1,844	0.5	35,199	723,646	
12-13	34,277		0	0.5	34,277	688,447	
13	34,277					654,170	

2. Complete The following data are a sample from the 1967–1980 Evans County study. Survival times (in years) are given for two study groups, each with 25 participants. Group 1 has no history of chronic disease (CHR = 0), and group 2 has a positive history of chronic disease (CHR = 1):

   Group 1 (CHR = 0): 12.3+, 5.4, 8.2, 12.2+, 11.7, 10.0, 5.7, 9.8, 2.6, 11.0, 9.2, 12.1+, 6.6, 2.2, 1.8, 10.2, 10.7, 11.1, 5.3, 3.5, 9.2, 2.5, 8.7, 3.8, 3.0

   Group 2 (CHR = 1): 5.8, 2.9, 8.4, 8.3, 9.1, 4.2, 4.1, 1.8, 3.1, 11.4, 2.4, 1.4, 5.9, 1.6, 2.8, 4.9, 3.5, 6.5, 9.9, 3.6, 5.2, 8.8, 7.8, 4.7, 3.9

   a. Fill in the missing information in the following table of ordered failure times for groups 1 and 2:



Group 1					Group 2				
$t_{(j)}$	n_j	m_j	q_j	$\hat{S}(t_{(j)})$	$t_{(j)}$	n_j	m_j	q_j	$\hat{S}(t_{(j)})$
0.0	25	0	0	1.00	0.0	25	0	0	1.00
1.8	25	1	0	.96	1.4	25	1	0	.96
2.2	24	1	0	.92	1.6	24	1	0	.92
2.5	23	1	0	.88	1.8	23	1	0	.88
2.6	22	1	0	.84	2.4	22	1	0	.84
3.0	21	1	0	.80	2.8	21	1	0	.80
3.5	20				2.9	20	1	0	.76
3.8	19	1	0	.72	3.1	19	1	0	.72
5.3	18	1	0	.68	3.5	18	1	0	.68
5.4	17	1	0	.64	3.6	17	1	0	.64
5.7	16	1	0	.60	3.9				
6.6	15	1	0	.56	4.1				
8.2	14	1	0	.52	4.2				
8.7	13	1	0	.48	4.7	13	1	0	.48
9.2					4.9	12	1	0	.44
9.8	10	1	0	.36	5.2	11	1	0	.40
10.0	9	1	0	.32	5.8	10	1	0	.36
10.2	8	1	0	.28	5.9	9	1	0	.32
10.7	7	1	0	.24	6.5	8	1	0	.28
11.0	6	1	0	.20	7.8	7	1	0	.24
11.1	5	1	0	.16	8.3	6	1	0	.20
11.7	4				8.4	5	1	0	.16
					8.8	4	1	0	.12
					9.1				
					9.9				
					11.4	1	1	0	.00