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1. (Course Overview)

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	chromatin), DNA	,	1	-RNA polymerase, Promoters,		(chromosome,	, RNAi,		
	1. BE Troop. (2012). Molecular Biology(4th ed). Jones and Bartlett. 2. Watson et. al.. (2014). Molecular Biology of the GENE(7th ed). Pearson. 3. RF Weaver. (2012). Molecular Biology(5th ed). McGraw -Hill. 4. JE Krebs et. al.. (2013). Lewin's Essential GENES(3rd ed). Jones and Bartlett. 5. . (2018). (3 ). 6. J Zlatanova & KE van Holde. (2016). Molecular Biology. Garland Science. 7. . (2020). Current Journals-Nature, Science, Cell etc...								
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2. (Course Schedule)

1	08/31 ~ 09/04		Introduction - (1)
			Overview for Life Science II
			<ul style="list-style-type: none"> <li>- Time schedule</li> <li>- Overview</li> <li>- Concepts of Life science(Moleculr Biology)</li> <li>- Historical Background</li> </ul>
2	09/07 ~ 09/11		Introduction - (2)
			Model Organisms in the field for Life Science/Molecular Biology
			<ul style="list-style-type: none"> <li>- Model organisms ; virus, bacteria, yeast, plansts, animals; Drosophila, C. elegans, mouse</li> </ul>
			(PPT)
3	09/14 ~ 09/18		Genome Structure in Prokaryote and Eukaryotes
			<ul style="list-style-type: none"> <li>- Chromosome in prokaryotes</li> <li>- Chromosome in eukaryotes</li> <li>- chromatin</li> <li>- chromosome</li> <li>- gene density</li> <li>- Cot analysis</li> </ul>
			(PPT)
4	09/21 ~ 09/25		DNA replication - I
			DNA replication - I
			General Characteristics (common) in DNA Replication
			<ul style="list-style-type: none"> <li>- in Prokatyoes</li> <li>- in Eukaryotes</li> <li>- Replication mode</li> <li>- Enzymology</li> </ul>
			(PPT)
5	09/28 ~ 10/02		Eukaryotic DNA replication - II
			Different stages in DNA repliacation
			<ul style="list-style-type: none"> <li>- Comparison Enzymology between prokaryotes and eukaryotes</li> </ul>
			<ul style="list-style-type: none"> <li>- initiation ; origin</li> <li>- Elongation</li> <li>- termiantion</li> </ul>
			(PPT)

6	10/05~10/09		DNA Mutagenesis
			<ul style="list-style-type: none"> <li>- DNA Mutagenesis</li> <li>- Types of mutation</li> <li>- Spontaneous mutagenesis</li> <li>- Induced mutagenesis</li> </ul>
			(PPT)
7	10/12~10/16		DNA Repair
			<ul style="list-style-type: none"> <li>- DNA repair</li> <li>- Types of DNA repair</li> <li>- Base excision repair, Nucleotide excision repair</li> <li>- Homologous recombination</li> </ul>
			(PPT)
8	10/19~10/23		Mid - Term Examination
			Mid - Term Examination
			(PPT)
9	10/26~10/30		Eukaryotic Transcription - I
			<ul style="list-style-type: none"> <li>- General characteristics of euakryotic transcription</li> <li>- Types and functions of RNA polymerase</li> <li>- Types of Promoters</li> </ul>
			(PPT)
10	11/02~11/06		Eukaryotic Transcription - II
			<ul style="list-style-type: none"> <li>- Review of Prokaryotic Transcription</li> <li>- Eukaryotic Transcription</li> </ul>
			(PPT)

11	11/09~11/13		Eukaryotic Transcription - Regulation
			- Principles of regulation; Chromatin remodelling, Modification of histones
			(PPT)
12	11/16~11/20		Modification of Eukaryotic Transcription
			- RNA splicing - Alternative splicing
			(PPT)
13	11/23~11/27		Regulation of Eukaryotic Transcription
			- Exon shuffling, RNA editing - Enhancer - Conserved mechanisms of transcriptional regulation - Transcriptional repressors
			(PPT)
14	11/30~12/04		Regulatory RNAs
			- RNA interferences - The evolution and exploitation of RNAi - Regulatory RNAs and X-inactivation
			(PPT)
15	12/07~12/11		Translation in eukaryote
			- Eukaryotic translation - Different stages of translation - Transport
			(PPT)
16	12/14~12/18		Final - Examination
			Final - Examination

		Quiz Test	
		Lecture Summary	
		( )	

		* * (chapter) summary note ( *) (minds@kku.ac.kr), t/s

