

The course content is divided into 7 Modules. Each module has its own folder on the Canvas website. Each module contains several chapters from the textbook **Molecular Biology: Principles of Genome Function, 2nd Edition, Craig et al., Oxford:**

**Module 1** Introduction (Ch 1, 2)

**Module 2** Basic Methods in Molecular Biology (Ch 19)

**Module 3** Chromosome structure and function (Ch 4)

**Module 4** Transcription (Ch 4, 8, 9, 10)

**Module 5** Translation (Ch 11, 12, 13)

**Module 6** Genomics (Ch 18, Ch 19)

**Module 7** Replication and DNA repair (Ch 6, 15, 16)

Please see **Course Overview** on Canvas for additional details

***Tentative schedule (topics are subject to change – exam dates will NOT change)***

DATE	TOPIC	INSTRUCTION FORMAT	READING	PROF
M 8/24	Class objectives and overview	Live on Teams <b>Group I &amp; II</b>	Ch 1	Yao
W 8/26	<b>Module 1</b> Introduction	Online Lecture Video Live Recitation on Teams <b>Group I &amp; II</b>	Ch 2, Ch 19 (1, 2)	Yao
M 8/31	<b>Module 2</b> Basic Methods in Molecular Biology	Online Lecture Video In-class <b>Group I</b>	Ch 19 (3, 4, 6, 7)	Yao
W 9/2	<b>Module 2</b> Basic Methods in Molecular Biology	Online Lecture Video In-class <b>Group II</b>	Ch 19 (3, 4, 6, 7)	Yao
M 9/7	<b>Labor Day</b>			
W 9/9	<b>Module 3</b> Chromosome structure and function	Online Lecture Video Live Recitation on Teams <b>Group I &amp; II</b>	Ch 4	Yao
M 9/14	<b>Module 3</b> Chromosome structure and function	Online Lecture Video In-class <b>Group I</b>		Yao
W 9/16	<b>Module 3</b> Chromosome structure and function	Online Lecture Video In-class <b>Group II</b>		Yao
M 9/21	<b>Module 4</b> Transcription	Online Lecture Video Live Q & A on Teams <b>Group I &amp; II</b>	Ch 8	Yao
W 9/23	<b>FIRST EXAM: Exam material includes content covered on 9/16</b>			
M 9/28	<b>Module 4</b> Transcription	Online Lecture Video In-class <b>Group I</b>	Ch 8	Yao
W 9/30	<b>Module 4</b> Regulation of transcription	Online Lecture Video In-class <b>Group II</b>	Ch 9	Yao
M 10/5	<b>Module 4</b> Regulation of transcription	Online Lecture Video In-class <b>Group I</b>		Yao
W 10/7	<b>Module 4</b> RNA processing	Online Lecture Video In-class <b>Group II</b>	Ch 10	Yao
M 10/12	<b>Module 4</b> RNA processing	Online Lecture Video Live Q & A on Teams <b>Group I &amp; II</b>		Yao

W 10/14	<b>SECOND EXAM: Exam material includes content covered on 10/12</b>			
	****Monday October 19 "W" drop date****			
M 10/19	<b>Module 5</b> Translation I	Online Lecture Video In-class <b>Group I</b>	Ch 11.1 – 11.6	Stargell
W 10/21	<b>Module 5</b> Translation II	Online Lecture Video In-class <b>Group II</b>	Ch11.7 – 11.11 Ch11.14	Stargell
M 10/26	<b>Module 5</b> Regulation of Translation	Online Lecture Video In-class <b>Group I</b>	Ch 12	Stargell
W 10/28	<b>Module 5</b> Regulatory small RNAs	Online Lecture Video In-class <b>Group II</b>	Ch 13.1 – 13.7	Stargell
M 11/2	<b>Module 5: Methods</b> of studying translation	Online Lecture Video In-class <b>Group I</b>	p839 Ch12.1EA; Ch12.3;Ch13.2 EA; p808 –10	Stargell
W 11/4	<b>Module 6</b> Genomics I	Online Lecture Video In-class <b>Group II</b>	18.1 – 18.5	Stargell
M 11/9	<b>Module 6: Methods</b> of studying genomics	Online Lecture Video Live Q & A on Teams <b>Group I &amp; II</b>	Ch 19.15	Stargell
W 11/11	<b>Third EXAM: Exam material includes content covered on 11/6</b>			
M 11/16	<b>Module 6</b> Genomics II	Online Lecture Video In-class <b>Group I</b>	18.6 – 18.11	Stargell
W 11/18	<b>Module 7</b> Replication I	Online Lecture Video In-class <b>Group II</b>	Ch 6.1 – 6.7	Stargell
11/23-27	<b>FALL BREAK</b>			
M 11/30	<b>Module 7</b> Replication II	Online Lecture Video Live on Teams <b>Group I &amp; II</b>	Ch 6.8 – 6.11	Stargell
W 12/2	<b>Module 7</b> DNA damage	Online Lecture Video Live on Teams <b>Group I &amp; II</b>	Ch 15.1 – 15.7	Stargell
M 12/7	<b>Module 7</b> DNA repair; CRISPR/Cas-9	Online Lecture Video Live on Teams <b>Group I &amp; II</b>	Ch16.1 – 16.3 Ch16.8	Stargell
W 12/9	Methods Overview	Online Lecture Video Live on Teams <b>Group I &amp; II</b>		Stargell
	<b>Fourth EXAM: (Finals week) Covers all course material</b>			
	<b>Wednesday, December 16<sup>th</sup></b>			