MCDB 511: Molecular Genetics  
(Cross-listed with GDCB). (3-0) Cr. 3. S.  
Prereq: BIOL 313 and BBMB 405  
The principles of molecular genetics: gene structure and function  
at the molecular level, including regulation of gene expression,  
genetic rearrangement, and the organization of genetic information in  
prokaryotes and eukaryotes.

MCDB 528: Advances in Molecular Cell Biology  
(Cross-listed with GDCB). (3-0) Cr. 3. Alt. F., offered even-numbered years.  
Prereq: Courses in general cell biology and biochemistry  
Cell biological processes including cell signaling, cell division,  
intracellular trafficking, biogenesis of organelles, cell adhesion and  
motility.

MCDB 533: Advances in Developmental Biology  
(Cross-listed with GDCB). (3-0) Cr. 3. Alt. F., offered odd-numbered years.  
Prereq: BIOL 314 or Biol 423  
Fundamental principles in multicellular development. Emphasis on  
cellular and molecular regulation of developmental processes, and  
experimental approaches as illustrated in the current literature.

MCDB 545: Plant Molecular, Cell and Developmental Biology  
(Cross-listed with GDCB, PLBIO). (3-0) Cr. 3. Alt. F., offered odd-numbered years.  
Prereq: Biol 313, BIOL 314, BIOL 330 or BBMB 405  
Plant nuclear and organelle genomes; regulation of gene expression;  
hormone signaling; organization, function, and development of plant cells  
and subcellular structures; regulation of plant growth and development.

MCDB 590: Special Topics  
Cr. arr. Repeatable.

MCDB 676: Biochemistry of Gene Expression in Eucaryotes  
(Cross-listed with BBMB). (2-0) Cr. 2. Alt. S., offered even-numbered years.  
Prereq: BBMB 404 and BBMB 504; and BBMB 506 and BBMB 507; or BBMB  
405 or BBMB 505 and or GDCB 511  
Analysis of the biochemical processes involved in expression of  
eucaryotic genes and the regulation thereof, including RNA polymerase,  
transcriptional regulatory proteins, enhancers and silencers, chromosome  
structure, termination, RNA processing, RNA transport, RNA turnover,  
small RNAs, translational regulation, protein turnover.

MCDB 697: Graduate Research Rotation  
Cr. 1-6. Repeatable. F.S.  
Graduate research projects performed under the supervision of selected  
faculty members in the molecular, cellular, and developmental biology  
program.

MCDB 698: Seminar in Molecular, Cellular, and Developmental Biology  
(Cross-listed with BBMB, GDCB, MICRO, V MPM). (2-0) Cr. 1-2.  
Repeatable. F.S.  
Student and faculty presentations.

MCDB 699: Research  
Cr. arr. Repeatable.