

A Quick Guide to MCDB Research Courses

Course	Volunteer	SRP-99	SRP-199 (including MCDB 199)	MCDB 196A-B	MCDB 198A-D	MCDB 199A-D
Short Description	Volunteer	Lower-division Student Research Program	Upper-division, single-quarter research	Research Apprenticeship	MCDB Departmental Honors research	Multi-quarter research
Suitable Project	Unofficial work in the lab	Learning protocol Small project	Limited project (10 weeks)	Multi-term project (2 quarters)	Advanced, multi-term project (at least 3 quarters)	Multi-term project (at least 2 quarters)
Credit Obtainable	0 units/quarter	1-2 units/quarter	4 units/quarter	4 units/quarter	4 units/quarter	4 units/quarter
Time Commitment	No minimum or maximum	3-5 hours/week per unit for at least one quarter	12-20 hours/week for one quarter	12-20 hours/week for two quarters	12-20 hours/week for at least three quarters	12-20 hours/week for at least two quarters
Approval Required	Central administration	Lab advisor and Undergraduate Research Center	Lab advisor and MCDB department (for MCDB 199)	Lab advisor and MCDB faculty committee	Lab advisor and MCDB faculty committee	Lab advisor and MCDB department
Administrative Requirements to Begin Course/Series	Student must complete paperwork to ensure lab and student safety. Faculty must initiate filing.	Contract only	10-week project proposal due Monday of Week 2 of quarter to be enrolled.	2-quarter project proposal due 1.5 months in advance of quarter to be enrolled. Approval not guaranteed.	3-quarter 198A-C / 1-quarter 198D project proposal due Monday of Week 2 of quarter to be enrolled.	2-quarter 199A-B / 10-week 199C or 199D project proposal due Monday of Week 2 of quarter to be enrolled.
When should student consult with faculty mentor or lab advisor to begin MCDB research course/series?	~3 weeks for paperwork to be processed before student begins in lab.	~1 month in advance of quarter to be enrolled	Student should consult with lab advisor to finalize specific project at least 1 month in advance of quarter to be enrolled.	Student should discuss with lab advisor their project proposal at least 2 months in advance of quarter to be enrolled. Multiple drafts of proposal often required.	Student should discuss with lab advisor their project proposal at least 2 months in advance of quarter to be enrolled. Multiple drafts of proposal often required.	Student should consult with faculty mentor to finalize specific project at least 1 month in advance of quarter to be enrolled.
Grading	None	P/NP	Letter Grade	Letter Grade	Letter Grade	Letter Grade
Final Assignment	None	None	Final paper due at end of quarter.	Final MCDB 180A-B assignments due at end of each quarter.	Final paper due at end of 198A-B, D and final thesis due at end of 198C.	Final paper due at end of each quarter.

A Quick Guide to MCDB Research-Related Courses

Course Title	MCDB 180A-B	MCDB 193	MCDB 194A
Short Description	Scientific Analysis and Communication	Journal Club	Lab Meeting
Purpose	Must be taken concurrently with MCDB 196A-B or 198A-D to enhance research experience	Familiarize student with relevant literature to the lab	Familiarize student with lab proceedings
Credit Obtainable	2 units/quarter	1 unit/quarter	1 unit/quarter
Time Commitment	2-hour seminar once/week + outside study	~2 hours/week	~2 hours/week
Approval Required	Lab advisor and MCDB faculty committee	MCDB department	MCDB department
Administrative Requirements to Begin Course/Series	Application, which includes a project proposal, required. Approval not guaranteed.	Student must be concurrently enrolled in upper-division MCDB research course under MCDB faculty member.	Student must be concurrently enrolled in upper-division MCDB research course under MCDB faculty member.
When should student consult with faculty mentor or lab advisor to begin MCDB research course/series?	Student should discuss with lab advisor at least 2 months in advance of quarter to be enrolled.	Requirements may be determined at the start of the quarter.	Requirements may be determined at the start of the quarter.
Grading	Letter Grade (Assigned by instructor)	P/NP	Letter Grade
Final Assignment	As assigned by instructor	None	None