

**Chemical and Biological Engineering  
Summary of Actions  
2019-2020**

Concern	Recommendation	Action	Follow-up
Students in EMAT 464 report feeling underprepared by aspects of EMAT 464 which is taken by chemical-, biological-, and mechanical engineering majors. This is due to differences in the emphasis on chemistry/biology and mechanics of materials for the different majors.	Provide clarity to advisors and faculty about the differences in the between the academic preparation as well as typical careers for graduates in each respective major	A document that provides clear and common language that can be used by both faculty and departmental advisors is being generated by the program coordinator for the new major and the ChBE department head.	Check in with advisors to ensure that they are aware of and using the materials. Gather informal student data in both majors to see if they are cognizant of the differences
There is less support for Polymath, which is used for simulations in which ODE's are solved in ECHM 328	Explore other software options to solve systems of ODE's including MATLAB and Python. A "pro" for polymath is that it is simple and allows students to focus on the content of the course - not the analytical "tool"	Other options were explored. While Python was considered, it is taught to students who have only had Calc I, therefore are not yet equipped to apply to ODE's We will continue to use Polymath for ECHM 328.	Monitor the support of Polymath and continue to use as long as it is supported
The DAC was concerned about job placement of graduating seniors (concern was raised in very early 2020, pre-pandemic)	work closely with career services to provide students opportunities to enhance their soft skills to be more successful during the interview process and monitor student job placement within 6-months of graduation	Much of the action was postponed due to the pandemic and the tracking of the job placement was impacted by the curtailed hiring within the engineering industry	Continue to utilize career services resources as they are offered and monitor student job placement
Significant uncertainty regarding the delivery of courses in the coming year, particularly those that typically involve hands on labs	Faculty who teach lab-based courses should investigate potential remote options	Several faculty joined the AIChE Lab Virtual Community of Practice who discussed	Utilize remote labs if required in the fall

		online/remote labs during weekly meetings. Materials were shared	
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There was significant uncertainty at the end of the 2019-2020 academic year about the format of the upcoming fall. Montana State University ultimately announced that they would have students in residence and offer courses in one of three modalities: fully face-to-face; blended format and completely online. The Department worked closely with the Office of the Registrar to schedule nearly 85% of our course offerings in the face-to-face format for AY21.