Clarify the STEM Pathways

1) Meet with STEM Completion Coaching Community on a bi-weekly basis throughout 2017-18 to develop a student communication plan, effective scheduling plan, curriculum plans (SEPs) including Basic Skills courses, transfer plans, student learning support plan, resource plan and data reporting needs plan.

This will involve the Dean of IT/Engineering, the Dean of Institutional Effectiveness and the members of the STEM Completion Coaching Community.

Get Students on STEM Pathways

1) Initiate new STEM student welcome day in Fall 2017 to meet faculty, learn about BC STEM clubs, and hear about STEM careers. Faculty will be encouraged to participate in Summer Bridge sessions, to provide guidance to 1st time STEM students.

This will be accomplished along with the Dean of IT/Engineering, the Engineering Program Manager, the MESA Program Manager, the Title V Director and the Completion Coaches.

2) Work with the Pathways implementation team and the STEM department chairs to develop a STEM 1st year experience course by March 2018.

3) Work with the Kern California Academic Partnership Program (CAPP), the Kern Promise and other outreach initiatives to promote STEM student interest and career awareness in K-12.

4) Track and improve Multiple Measures placement processes, detailing ways high school students can ensure placement into MATH B6A Calculus I by the end of Spring 2018. This will need involvement of at least the math department chair, myself and the Dean of Institutional Effectiveness with KHSD math faculty.

Keep Students on STEM Pathways

1) Participate in the effective use and communication of Starfish to aid in students’ completion.

Work on the Starfish team and implement this program within the STEM Completion Coaching Community.

2) By end of Fall 2017, train all STEM faculty on how to use the current Early Alert program and when available to faculty, the Starfish student success program.
This will be completed in collaboration with the Dean of Counseling.

3) Work with the faculty chairs to create opportunities for faculty and students to participate in on-campus STEM general interest events, like National Chemistry Week, National Pi Day and the SPE Engineering Day.

4) Develop a data timeline and communication responses involving the Completion Coaches and course faculty as needed. This may involve calling students, texting students, emailing students or providing specific printed directions to students in class, following the communication plan.

This will be completed during throughout the 2017-18, and data, dates, and responses will captured in weekly reports to establish a standard process for future years. All members of the Completion Coaches will be involved, and other faculty and staff will be asked to assist as needed.

5) Include support for STEM Mentors and Assistants as part of a new NSF S-STEM grant proposal by March 2018.

6) Work with the STEM department chairs to create set semester course schedules that allow STEM students to complete their required courses without conflicts, especially for those students who start as part of the Kern Promise in Fall 2018.

7) Baseline metrics from the Dean of Institutional Effectiveness will be used for the STEM Pathways Milestones to establish improvement goals and plans for each. These will be tracked each term, and goals and plans will be reviewed and improved.

Milestones to track and improve will include...
   a. Completion of college-level math (preferably MATH B6A Calculus I) and English within 1st year.
   b. Completion of 15 units within first semester.
   c. Completion of 30 units within first year.
   d. Completion of 60 units within first two years.
   e. Successful graduation and transfer to a Baccalaureate program within 3 years.
   f. Equity in enrollment, success and progression outcomes.
   g. Persistence from Fall to Spring and from Fall to next Fall for new students.

Ensure Learning

1) With the STEM Completion Coaching Community members by February 2018, institute a public review and evaluation of STEM Program Reviews and Program Learning Outcomes. This should be done with openness to ideas for improvement and consideration for student input and experiences.

2) Encourage STEM clubs to connect activities to program learning outcomes.