GENERAL STUDIES AGREEMENT FORM

For New General Studies Courses

Please complete and attach all materials for your General Studies Course Proposal Application to this form. If you have questions about the General Studies process or would like to discuss your course prior to submitting your Application, please contact the Convenor of the appropriate General Studies Course Review Committee. The completed application should be sent to the Dean of the School of General Studies.

If you design your own course, you will be asked to submit a Proposal Application. Refer to the document entitled "How to Propose a General Studies Course" for description of the course proposal process and guidelines for completing your Proposal Application.

If you propose to teach an existing course or a section of a course with multiple sections, it will suffice to submit a standard syllabus. However, if you propose to teach a course that is part of the College's course inventory but may have fallen into disuse because a faculty member either departed or no longer teaches the course, please submit a complete Proposal Application as if the course were new.

Adjuncts of courses that are not part of multiple section offerings agree to meet with the apropos General Studies committee during the second and fourth years of a course offering to review their experience; after that, adjunct faculty will review their course every 5 years. This course review follows the course review process described in the document entitled "How to Propose a General Studies Course"; refer to that section for fuller explanation of the review process and procedures.

All faculty members whose General Studies courses are approved agree to submit their courses for a review process every five years. A section of the web page entitled "How to Propose a General Studies Course" describes the review process; refer to that section for an explanation of the review process and procedures.

Finally, all instructors are advised that the approval of a General Studies course does not automatically insert such a course into an interdisciplinary minor no matter how suitable such inclusion may be. Decisions about faculty membership in the minor and about inclusion of courses in the curricula of minors are at the discretion of the program faculty of the minor. Similarly, courses do not receive attributes or subscripts automatically, either. Nor does a course become part of the Freshman Seminar Program concurrent with its approval as a General Studies course. Attribute and subscript designation and inclusion in the Freshman Seminar Program require separate approval after the course has gone through the General Studies course approval process. Faculty members interested in such designations should contact the appropriate coordinator.

Please sign this page and submit it together with your General Studies Course Proposal Application materials to the Dean of the School of General Studies.

_____ _____

Signature Date

Philip Eaton

_____

Please print your name clearly here

Please send this form and any attachments to the Dean of the School of General Studies at least two weeks prior to a scheduled new course proposal meeting. Sample, completed new course forms are accessible on the **General Studies website**.

GENERAL STUDIES NEW COURSE PROPOSAL FORM

These sections should be completed by the faculty/staff member proposing the course.

GNM	2XXX	3
Acronym	Course Level (1XXX 2XXX 3XXX 4XXX 5XXX 6XXX)	Credits

Schedule Type	☒ Lecture (1-5)	☐ Seminar (0-6)	☐ Tutorial (7)	☐ Independent study (8)	☐ Internship (9)

Philip Eaton	Applied Physics	NAMS
Instructor Name	Program	School

Modeling Epidemics: Zombies
Complete Course Title (30 characters maximum)

Prerequisite	☐ Yes ☒ No
If yes, list prerequisite by Acronym & Number	

Course Status:	☒ New ☐ Adapted

NOTE: All Subscript designations and/or W/Q approvals must be submitted through the appropriate Convenor.

Course Description for the Bulletin – must be approximately 45 words

Students will learn about how and why scientists mathematically model epidemics (e.g. HIV, the common cold, Covid-19, Zombies, etc.) as well as some basic techniques used to extract numerical results from their models. In this course, students will work in small groups to compile reports where they will conceptually interpret their models and findings.

The sections below should be completed by the General Studies Convenor.

Review Outcome:	*Yes*	*No*	
	☐	☐	Course meets guidelines for "G" category
	☐	☐	Course meets at least two General Studies objectives — List Objective Numbers _____

Course As A Whole Is:	☐ Approved Unanimously	☐ Disapproved With A Split Vote
	☐ Approved With A Split Vote	☐ Disapproved Unanimously

Subcommittee Members Present:	

Recommendations:	

Program Convenor: _____ **Date:** _____

Dean of General Studies: _____ **Date:** _____

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1. General Studies Category

Identify and explain the ways in which the course fits the selected **course category** (GAH, GEN, GIS, GNM or GSS):

Select Course Category: GNM

Explanation of chosen course category:

This course would primarily be about understanding, applying, and interpreting the results of the mathematical models used when studying infectious diseases. Students will prescribe model parameters and verify that the results are consistent with historical records. If the results are not, then they will be required to either update their parameters and explain what about their model failed to describe a real world situation. For each of the models discussed in the course, students will have to develop a model for a particular disease, and their experiences will be synthesized into detailed reports . This course will focus on the process of doing science with respect to infectious disease modeling and on developing student scientific practice skills by writing reports and verbalizing results in a final presentation.

2. Course Description (250-300 word explanation of the course, overall focus, and academic rationale):

Students will learn about how and why scientists mathematically model epidemics (e.g. HIV, the common cold, Covid-19, etc.). These models will include, but are not limited to the SIS model, the SIR model, and the Simple Kermack–McKendrick Epidemic model, as well as looking at discrete collision models of contact spread and the effects of social distancing. These models will be discussed conceptually, and basic numerical techniques will be used to extract numerical results. However, these numerical techniques will not be a major focus of the course. The primary focus of this course will be the conceptual understanding of the models being discussed, properly interpreting the numerical results, and using these as a means to offer informed suggestions on how to deal with an epidemic. These points will be synthesized by the students, working in small groups, in written reports for each of the major models discussed in the course. The culmination of the class will be a final project (2-3 weeks) where small groups will pick a model previously discussed in the class, or design their own model, and use it to model a zombie movie. These projects will result in a written report and a short class presentation where they will explain their model, justify parameter values, review the numerical results, and discuss what actions, if any, humans would need to take in order to survive a zombie outbreak.

3. Course Proposal Narrative

Explain the new learning opportunities provided by the course and the interdisciplinary nature of the course; in addition provide a course outline/syllabus, including overall organization of the course – learning modules, breakdown of the in-class and out of class work -- readings and assignment descriptions; please refer to the document entitled "**How to Propose a General Studies Course**" for a fuller description.

Interdisciplinary Nature:

This class would combine mathematical literacy with verbal/written communication skills in a way that is often not done in math-based science classes. By requiring students to think about math with "simple" physical applications in mind, this course will help them to better think of math conceptually as opposed to procedurally. The mathematical literacy and scientific communication skill this class would teach are critical for being a broad-minded and deep thinker. Students of all disciplines should know how to write about their observational findings and how these findings compare and contrast to the physical world. Further, gaining a better understanding of how models are used, like the ones discussed in this class, is important in other areas where rational and informed decision-making is imperative. For example, understanding how data gathered for Covid-19 or political polling purposes around elections, and why these data should be met with some level of scrutiny, is needed when trying to make decisions about one's personal life ("Should I/my family go outside?") or policy ("Should masks be mandated by law?"). Any math discussed in this course will never be above algebra in nature, so it will be accessible to students from all disciplines.

Difference from a Program Course in an Academic Discipline

Describe the ways in which the course is different in content, goals, and objectives from a Program course in a discipline:

Although some courses in Biology and GNM discuss infectious diseases, none discuss the mathematical modeling of disease spread (i.e. epidemiological modeling). There would likely be some overlap with a couple GMN courses in the historical discussions of diseases, however, the focus of the discussions here would be to help develop/understand the models being used to study the spread of the diseases, as opposed to the diseases themselves. For students who are more mathematically inclined, or who are simply interested in epidemics, this class would offer an opportunity to conceptually explore models often only seen in very specific undergraduate majors or graduate studies. Further, some of the models use the physics of collisions and/or require a moderate amount of programing experience to put into code. Although the coding aspect would not be the primary focus of the course, the methods used to get numerical results would be discussed conceptually.

4. Alignment of Course Goals to Assignments

Identify the objectives met by this course. All courses are expected to meet at least two **General Studies objectives** and one or more college-wide ELOs. Content goals specific to the course should also be given here.

Course Content Goals:

List specific goals here (e.g. For a Food Science course - Students will explain the physics of heat transfer and how this influences cooking with different materials)

Students will examine some of the most famous, and simplistic, models of epidemiology and how they are used to model infectious disease spread.

Students will learn how to set up their own models and how to properly interpret their model parameters.

Students will learn how to get numerical results from their models and how to properly interpret them.

Students will practice their scientific communication skills by writing reports about their models and results.

General Studies Objectives	ELOs	IDEA
Objective 4	Quantitative Reasoning	Objective 3
Objective 3	Teamwork and Collaboration	Objective 5
Objective 9	Communication Skills	Objective 8

Explain how the goals identified above will be met and assessed, for example through specific readings and assignments. If you need more space, please attach additional information with your completed form.

GSO Objective 4: Ability to understand numerical data so as to be able to comprehend arguments and positions that depend on numbers and statistics.
Assignments: In their written reports, students will need to explain how they got their numerical results and then interpret these results. By considering the specific aspect of the model and their interpretations of the numerical results, students will give suggestions on what can be done to lessen the effects of the epidemic being modeled and what these suggests would look like for a population.

GSO Objective 3: Ability to reason logically and abstractly and to comprehend and criticize arguments.
Assignments: Part of group grades will be a double blind (reader and writer do not know who each other are) peer reviews of the reports written by each group. I.e. groups will, at the instructor's arrangement, read another group's report and supply a referee report with comments and criticisms. The groups would then be able to improve their reports given these comments/criticisms. These improved reports would be submitted to the instructor for grading.

GSO Objective 9: Scientific knowledge of the physical and natural world and understanding how that knowledge is attained and evaluated.
Assignments: In the final project students will need to interpret the model in the context of a zombie outbreak and then select parameter values which are reasonable for the specific zombie movie they decided to model. They will then have to interpret how "realistic" these results are and potentially adjust parameters to correct for "unrealistic" results.

Quantitative Reasoning.
Assignments: Student will be required to generate and interpret their own data for their reports.

Teamwork and Collaboration.
Assignments: All of the reports will be written in small groups. Part of the evaluation will be group member participation surveys.

Communication Skills.
Assignments: The students will write reports that explain their model, analysis, and their results. Further, the students will give suggestions on how a population could react to lessen the impact of the pandemic being modeled.

IDEA Objective 3: Learning to apply course material.
Assignments: The group reports described in the previous objectives require the application of the materials discussed in the course.

IDEA Objective 5: Acquiring skills in working with others as a member of a team.
Assignments: Most of the assessments in the class would be via small group reports and activities.

IDEA Objective 8: Developing Skill in expressing oneself orally or in writing.
Assignments: The written reports would satisfy one part of these. The final project also would contain a presentation aspect where each group would orally describe their models, their parameters, and their results.

Adjunct faculty proposing a new General Studies course should, in addition, complete a Sponsor Form and attach a CV.

Please send this form and any attachments to the Dean of the School of General Studies at least two weeks prior to a scheduled new course proposal meeting. Sample, completed new course forms are accessible on the **General Studies website**.

Modeling Epidemics (GNM 2XXX) – Fall/Spring 20XX

W Designation: W2 – Writing will the be primary means of evaluation for this class

Instructor Information:

Instructor: Philip Eaton, Ph.D. (Just call me Philip) **Office:** USC2-206 **Email:** philip.eaton@stockton.edu

Email is the best way to get into contact with me outside of office hours.

Office Hours: I will be on my class Discord (LINK HERE) in the subchannel "office-of-philip" M-F 8:00 am - 10:00 am and MWF 3:30 pm - 5:00 pm. You will need to create a Discord account to join, but it is FREE. Also, please make sure you use you first name or first&last name when filling out your nickname!

I have set up "work rooms" in my Discord for everyone to use as a place to meet up in groups to discuss reports, readings, concepts, etc.; more can be opened as needed. These can be found either on the course Blackboard in the left-hand content panel or using the following link LINK HERE.

Class Information:

Dates: XXX. #xx - XXX. #xx **Holidays/No Class:**

Times: 00:00 am/pm - 00:00 am/pm

Place: XXX #### **Online presence:** Everything for the course will be posted to Blackboard.

Important Dates:

XXX. #xx - Last day to drop classes with a full refund;
XXX. #xx - Last day to drop classes with a 50% refund;
XXX. #xx - Last day to withdraw from the course with a "W";
XXX. #xx - (Friday) Final Exam: 00:00 am/pm - 00:00 am/pm in XXX ###

About this Course:

Students will learn about how and why scientists mathematically model epidemics (e.g. HIV, the common cold, Covid-19, etc.). These models will include, but are not limited to the SIS model, the SIR model, and the Simple Kermack–McKendrick Epidemic model, as well as looking at discrete collision models of contact spread and the effects of social distancing. These models will be discussed conceptually, and basic numerical techniques will be used to extract numerical results. However, these numerical techniques will not be a major focus of the course. The primary focus of this course will be the conceptual understanding of the models being discussed, properly interpreting the numerical results, and using these as a means to offer informed suggestions on how to deal with an epidemic. These points will be synthesized by the students, working in small groups, in written reports for each of the major models discussed in the course. The culmination of the class will be a final project (2-3 weeks) where small groups will pick a model previously discussed in the class, or design their own model, and use it to model a zombie movie. These projects will result in a written report and a short class presentation where they will explain their model, justify parameter values, review the numerical results, and discuss what actions, if any, humans would need to take in order to survive a zombie outbreak.

Learning Objectives:

Upon completion of this course students will:

- have a conceptual understanding of the most famous models of epidemiology and how they are used to model infectious disease spread;
- be able to set up their own models and properly interpret their model parameters;
- be able to get numerical results from their models and properly interpret them;
- be able to effectively communicate their scientific finding.

Textbooks/Resources:

Any introductory physics with calculus book will work. Here are two recommendations:

- **Required** – *A computer*
  - You will need this is access some course materials, online office hours, online work spaces, and to perform numerical analysis required for your reports.
- **Recommended** –
  –

Course Structure:

Reading Assignments: Will be given weekly reading assignments which you will incorporate into your reports for each of the models discussed in the class.

Lecture: These will be very interactive, using group/class discussions, brainstorming sessions, and thinking about open-ended questions brought up by the instructor or classmates. The amount of enthusiasm and activity to give in class will be directly proportional to how much understanding you take away from the class.

Draft Reports: The primary form of evaluation for this class will be written reports. These reports will be worked on by small groups of students (no more than 3 people). Details for what the report requires can be found below.

Peer Review: After submitting a report for review, a group will receive one or two other groups' reports in a double-blind peer-review process. Comments/suggestions for improvement and possible criticisms will be generated by the reviewing group that will be submitted to the instructor. Along with these comments, the reviewing groups will use a rubric supplied by the instructor to assign a score, with explanation, to the draft report being reviewed. These reports will compiled by the instructor and then given to the authoring group.

Revised Reports: Groups will use their peer's comments/suggestions/criticisms to make corrections/ improvements to their reports and then submit a final version to the instructor for grading. Also, groups will submit a report in which they will address the review comments and explain how they agreed/disagreed, and how they incorporated the comments into their report. The instructor will grade the reports in a holistic manner taking the draft report, the reviewer comments, and the revised report into consideration when assigning a score.

Final Project: Groups will select a zombie movie that they will then try to generate a model to answer the question, "Would humans survive?" This project will conclude with a final report and class presentation where the group will explain their findings to the class. The final presentation may be held in a public venue, barring location availability and current epidemic safety standards.

Tentative Course Schedule:

Week 1: SIS Model and Flu/Common Cold.
Also look at how to do simple numerical analysis in Excel.

Weeks 2 – 3*: SIR Model and Measles.

Weeks 4 – 5*: SIR with Carriers and Tuberculosis

Weeks 6 – 7*: SEI - R/S Models and Diseases with Incubation Periods.

Weeks 8 – 10.5*: Variable Contact Models and Covid-19 / Common Cold.

Weeks 10.5 – 12*: Collision models and Respiratory Infectious Diseases / Zombies

Weeks 13 – 14: In class time to work on Final Projects

Week 15: Final Project Presentations

Two days of class time will be used for groups to work on reports for all blocks marked with an " * ".

Class Etiquette:

- **You should** show up on time for class.
- **You should** write notes on the lecture. My lectures will be based on materials from many different texts. As a result, your textbook should be seen as an alternate learning devices/source of information since it will present material in a slightly different manners from how I approach the topic in class.
- **You should** read from the book and complete the requisite before coming to class, see Announcements in Blackboard.
- **You should** actively participate in group/class discussions in class. This class is going to rely very heavily on group discussion, brainstorming sessions, and open-ended questions. The amount of enthusiasm and activity to give in class will be directly proportional to how much understanding you take away from the class.
- **You should always** interrupt me to ask questions when you are confused. We are a team, if you are confused then it is my job to fix that.
- **You should** schedule time slots outside of class to work on your group reports. You will need to identify a primary author for each report. This position will rotate, so everyone will have to be the primary author at least twice in the class.
- **You should** feel free to go to the bathroom if you need to. You do not need to ask for permission.
- **You should not** talk loudly while a group/class discussion is not in progress. If you are helping answer a quick question a neighbor has then a little talking is fine. But any questions that can not be answered in 2 or 3 sentences should just be brought up to me.
- **You should not** be on your cell phone during lecture. We can all make it through lecture without needing to get on Tweetter, Facegram, or Instabook. Silence your phone and put it away unless you have an emergency call coming your way, in which case notify me about it before class.
- **Ultimately** you are all adults and I will treat you all as such.

Grading Criteria:

Grade Scale:

This is subject to change, and will only be made to improve letter grades to adjust for the difficulty of the course.

A	A−	B+	B	B−	C+	C	C−	D	F
93-100	90-92.99	87-89.99	83-86.99	80-82.99	77-79.99	73-76.99	70-72.99	60-69.99	0-59.99

Grading Breakdown::

- **Class Participation (10%)** - You will be evaluated weekly by your group and the instructor for how well you participated in class activities.
- **Reports (50%)** - There will be 5-6 reports in this class, one for each model discussed. These will be graded based on formatting, how well you responded to review comments, and overall quality of the report. Please see the rubric at the end of the syllabus for details in what is expect in these reports.
- **Peer Review Reports (20%)** - For every report, your group will be asked to review one or two other groups' reports. These reviews will be graded on formatting and the quality/thoughtfulness of your comments and criticisms. Please see the rubric at the end of the syllabus for details in what is expect in these reports.
- **Final Report (15%)** There will be a final group project in the class. It will be similar to the other reports from the class however there will not be any review process. Details and a rubric for this project can be found below.
- **Final Presentation (5%)** Your group will give a 15-20 minute presentation to the class where you will discuss your the main points of your final report. Please see the rubric at the end of the syllabus for details in what is expect in this presentation.

Helpful Resources:

Writing Center: You can use the Writing Center to get helpful comment on your reports. They will not proofread the entire report, but they will looks over one or two pages and give you general comments from there.

Academic Honesty:

Students should be aware of the University's policies on Academic Honesty. While students can work in groups on their homework, the work each student does for this course, completed in or outside of class time, is expected to be their own. Cheating and other forms of academic dishonesty will not be tolerated. Refer to the Stockton University's Student handbook to read more about Stockton's academic honesty policies. Questions about what should be done with other students and what should be done alone should be brought up to the instructor.

Message from the Learning Access Program (Stockton's Students with Disabilities Office):

Stockton University complies with Section 504 and 508 of the Rehabilitation Act and the Americans with Disabilities Act. Students with documented disabilities who seek accommodations should make their request by contacting the Learning Access Program located in J204 or by calling 609-652-4988. In order to make sure that there is enough time to arrange accommodations, I suggest you give me the paperwork by the end of the second week of the semester or as early as possible to arrange services in this class. Retroactive accommodations will not be granted.

Concerned that you have a disability that will affect your learning in this class, but don't know where to start? Please contact Robert Ross, or Nancy McGarigal in the Learning Access Program (609-652-4988 or via email at lap@stockton.edu.) to learn about your options and the available resources for having your disability assessed. Additional information on the program may be obtained from Stockton website: Learning Access Program

Talk to me:

- If there is anything you think you need to succeed in this class, please talk to me about it. I try to be as understanding as possible to life sometimes throwing people curve balls.

Rubric/Requirements for a Draft/Revised Report

Technical Content (60%)

- The report should demonstrate mastery of the content being discussed. For example, properly using technical vocabulary and correct illustrations of model parameters
- Appropriate level of detail throughout the report. There is a fine balance between too little and too much detail. Personally, I would err on the side of too much detail and then remove stuff based on referee comments.

Organization/Formatting (15%)

- A Word document with the formatting already set up is available in the class Blackboard.
- Reports should be two columns single spaced.
- Font: Times New Roman [11pt], Calibri (Body) [11pt], Cambria [10.5pt], or Helvetica [10pt].
- You will need to include a Title, Author list, and the following sections: Introduction, Methodology, Results, Discussion, Limitations , and Conclusions.
  - **Title:** Title of the article.
  - **Author list:** First author listed in the primary author. The following authors are the secondary authors.
  - **Introduction:** Describe the situation your are attempting to model and why it is important to do so. Give all relevant background information to the article here.
  - **Methodology:** Discuss/explain you model, the parameters, and how you got your numerical solutions/plots. You should explain the model as completely as possible in a conceptual manner, no mathematical development needed. This means you will need to display your mathematical model and explain it, but you do not need to do any math. Include examples of possible values for the parameters to help readers understand what they mean. You should explain what values you will be using for each parameter and where/how you came up with these values (i.e. if you need a transmission rate for HIV, then you can use historical data. You would need to explain this process for each of your variables.). Remember to cite your sources!
  - **Results:** This section is where you display the results of your analysis. This section will be shorter, but should have plots/charts/tables generated via the method you described in the previous section.
  - **Discussion:** Here you will explain what the results you present mean and how they can be interpreted. For example, in your model did the disease end up infecting the entire population or only a small percentage? Are there any interesting features to the results that you can help explain? What can you suggested the population do in the event an epidemic like the one you modeled actually happened? How would these suggestions impact your models? This will be one of the longer sections in your report, but it should be the most fun/interesting to write.
  - **Limitations:** Explain any limitations your model possesses. You do not need to get into specific details here. Just comment on things your model leaves out, or particularly specific assumptions your model make that may not be totally accurate in the real world. For example, a lot of models will assume perfect mixing of susceptible and infected individuals, but in the real world this may not be a good assumption for some situations. I.e. it may be great for modeling a dormitory that frequently has parties in the common rooms which most everyone attends, but would be less accurate for modeling a dormitory where everyone stays in their rooms and never comes out.
  - **Conclusions:** Summarize the report with the big picture findings. Briefly explain your model, your results, and the important points of your discussion.

Presentation (15%)

- Easy and interesting to read. I.e. uses relevant and varied vocabulary, doesn't describe everything the same way over-and-over again, etc.
- Grammatically and stylistically correct with a uniform writing style.

Visuals (10%)

- Consistent presentation of graphics. I.e. all of the plots are the same size, include proper and accurate axis labels, etc.
- Uniform document design and layout. I.e. no random blank pages, missing sections of text, etc..

Rubric/Requirements for the Final Project Report

Technical Content (60%)

- The report should demonstrate mastery of the content being discussed. For example, properly using technical vocabulary and correct illustrations of model parameters
- Appropriate level of detail throughout the report. There is a fine balance between too little and too much detail. Personally, I would err on the side of too much detail and then remove stuff based on referee comments.

Organization/Formatting (15%)

- A Word document with the formatting already set up is available in the class Blackboard.
- Reports should be two columns single spaced. Font: Times New Roman [11pt], Calibri (Body) [11pt], Cambria [10.5pt], or Helvetica [10pt].
- You will need to include a Title, Author list, Abstract, and the following sections: Introduction, Methodology, Results, Discussion, Limitations , and Conclusions.
  - **Title:** Title of the article.
  - **Author list:** First author listed in the primary author. The following authors are the secondary authors.
  - **Abstract:** Summarize the article in 250 - 300 words. This is generally the last thing written in the article.
  - **Introduction:** Explain the need to modeling epidemics and why it is important. Describe the situation your are attempting to model and why. Give all relevant background information to the article here.
  - **Methodology:** Discuss/explain you model, the parameters, and how you got your numerical solutions/plots. You should explain the model as completely as possible in a conceptual manner, no mathematical development needed. This means you will need to display your mathematical model and explain it, but you do not need to do any math. Include examples of possible values for the parameters to help readers understand what they mean. You should explain what values you will be using for each parameter and where/how you came up with these values (i.e. if you need a transmission rate for HIV, then you can use historical data. You would need to explain this process for each of your variables.). Remember to cite your sources!
  - **Results:** This section is where you display the results of your analysis. This section will be shorter, but should have plots/charts/tables generated via the method you described in the previous section.
  - **Discussion:** Here you will explain what the results you present mean and how they can be interpreted. For example, in your model did the disease end up infecting the entire population or only a small percentage? Are there any interesting features to the results that you can help explain? What can you suggested the population do in the event an epidemic like the one you modeled actually happened? How would these suggestions impact your models? This will be one of the longer sections in your report, but it should be the most fun/interesting to write.
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  - **Conclusions:** Summarize the report with the big picture findings. Briefly explain your model, your results, and the important points of your discussion.

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- Consistent presentation of graphics. I.e. all of the plots are the same size, include proper and accurate axis labels, etc.
- Uniform document design and layout. I.e. no random blank pages, missing sections of text, etc..