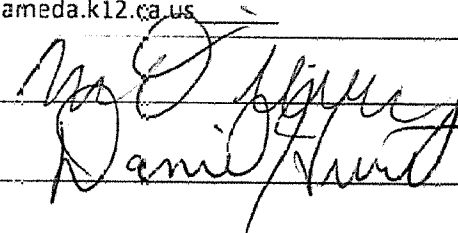
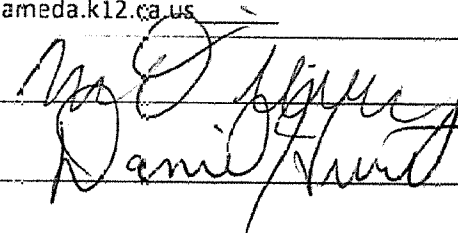
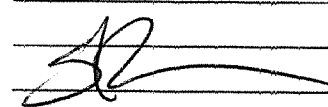


ALAMEDA UNIFIED SCHOOL DISTRICT

SECTION A. COURSE DESCRIPTION COVER PAGE

<p><b>NOTE: Students enrolling in this course will be dual-enrolled in both Alameda USD and Peralta Community College District (PCCD). Upon completion, students will receive credit for completion of a college-level course – 10 credits for the semester.</b></p>	
1. Course Title: Writing for the Scientific Journal	6. Prerequisite(s): Biology (C or better)
2. Action: <input checked="" type="checkbox"/> New Course <input type="checkbox"/> Course Revision <input type="checkbox"/> Title Change Only	7. Grade Level: 11 <sup>th</sup> /12 <sup>th</sup>
3. Transcript Title/Abbreviation: Writing Sci Journal	8. Elective/Required: Elective
4. Transcript Course Code/Course Number: QNNM	9. Subject Area: Life Science
5. CBEDS Code:	10. Department: Science
<p>11. Length /Credits: <input checked="" type="checkbox"/> 0.5 (half year or semester equivalent) <input type="checkbox"/> 1.0 (one year equivalent)</p> <p>NOTE: This is a dual enrollment course. The course is one college semester in duration which translates to 10 high school credits.</p>	
<p>12. Was this course previously approved by UC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If so, year removed from list: _____</p>	
<p>13. Meets the "_____ " requirements in the a-g university/college entrance requirement. Approval date: N/A</p>	
<p>14. School Contact Information Name: Pauline Stahl Title/Position: Teacher Phone: 748 4023 ext:2102 Fax: 521-4956 E-Mail: pstahl@alameda.k12.ca.us</p>	
<p>16. Signatures: Department Chair:  Principal: </p>	
<p>Acknowledged by Other Principals: _____</p>	
<p>Educational Services:  6-5-17</p>	
<p>16. BOI Approval</p>	
<p>Signature of Superintendent _____ Date of Approval _____</p>	

## SECTION B. COURSE CONTENT

### 17. Course Description:

Writing, editing, and reviewing other's work; comparison of private publication with that of society-based and open-source publications; using the internet for data collection and analysis, copyright issues, and data-based referencing such as PubMed Central; deposition of data in archived web sites such as GenBank. Writing a scientific manuscript including research, data presentation, and data analysis, editing, the peer-review process, and interpretation of reviews.

### 18. Course Goals and/or Major Student Outcomes:

1. Produce a scientific paper based upon original data –
  - a. research, write, and edit literature review for paper
  - b. prepare and edit appropriate tables, figures, and graphs
  - c. analyze and discuss original data
  - d. prepare comprehensive bibliography
2. Critique other published papers
  - a. analyze quality of research and contribution to field
  - b. prepare strengths and weakness summaries, including "gap analysis."
3. Understand appropriate copyright laws

### 19. Course Objectives (standards):

Assess research for its strengths, weaknesses, and appropriateness

Communicate with clarity and precision in written form

Use critical thinking evaluate ideas, identify problems, and develop solutions

Use quantitative reasoning to interpret and data and create appropriate graphs, charts, and tables

Research topics appropriate to the topic

### 20. Course Outline:

1. Using the internet for data collection and analysis (10%)
  - a. copyright laws
  - b. data based referencing, e.g. PubMed Central
2. Scientific writing and manuscript preparation (65%)
  - a. Structure of scientific papers in journals such as Nature and Science v. long-format journals
  - b. Exploring sections: Abstract, introduction, methods, results, discussion, literature cited, and appendices
  - c. Comparing private publications with society-based and open-source publications
3. Editing papers and manuscripts (10%)
  - a. the editing process
  - b. the peer review process
  - c. interpretation of reviews
4. Deposition of data in archived websites such as GenBank (15%)

### 21. Instructional Materials:

Board approved required text:

Supplementary materials:

Access to PCCD library for research

APA style manual for reference

22. Instructional Methods and/or Strategies

1. Lecture
2. Discussion
3. Peer editing/critique
4. Student presentation

23. Assessment and Evaluation

On-going formative and summative assessments, including scientific writing requiring students to select, organize, and defend ideas with supporting data. In the process, students will demonstrate analytical and critical thinking skills. Formal assessments will include preparation of journal sections suitably formatted for scientific publication. Culminating project is a full manuscript.

24. Grading Policy

Assignments will be graded A-F for clarity, thought, and comprehensiveness.

**SECTION C. OPTIONAL INFORMATION**

25. Context for offering the course:

Students in the genomics pathway will be producing original data unknown to the scientific community. This course will allow students the real-life experience of preparing data for publication.

For reference, the course listing from Peralta Community College District's Course Catalog is provided below:

**BIOSC 34**

**Writing for the Scientific Journal**

1-3 units, 1-3 hours lecture (GR or P/NP)

Prerequisite: Biol 36 and Biosc 30

Recommended preparation: Engl 1A

Acceptable for credit: CSU

Introduction to writing for the scientific journal: Writing, editing, and reviewing other's work; comparison of private publications with that of society-based and open access publications; using the Internet for data collection and analysis, copyright issues, and data-based referencing such as PubMed Central; deposition of data in archived web sites such as GenBank; writing a scientific manuscript, editing, the peer-review process, and interpretation of reviews.