The School of Natural Science, Mathematics, and Engineering at California State University, Bakersfield offer a program in science and mathematics funded by Chevron Corporation. This program is geared towards high school students and intends to increase interest in science and mathematics careers. REVS-UP offers hands-on research experiences for teams in biology, chemistry, computer science, engineering, geology, mathematics, and physics. All research projects will take place June 3 through June 27, 2019 in the research laboratories at CSUB.

Additional information can be found at http://www.csub.edu/revsup
Please email stem@csub.edu with questions about the program.

Interested high school students need to submit the following materials:
- Completed application;
- Personal statement describing their interest;
- Letter of recommendation from a high school math/science teacher or counselor;
- Current High School transcripts.

Due to the high volume of applicants, incomplete application packets will not be considered. We regret that we cannot accept repeat participants.

Applications are due on February 22nd, 2019 by 5:00 pm.

The projects take place between
June 3 and June 27, 2019 (Monday – Thursday 9:00 a.m. to 4:00 p.m.)

Participants will receive a $500.00 stipend for the summer research program.
2019 Chevron REVS-UP APPLICATION*

Name ________________________________________________________________
Address ______________________________________________________________
City ____________________________ State _______________ Zip ________________
Home Phone _______________________ Email __________________________________
High School ________________________ Grade _____ Current GPA ______________
Project “Lead the Way” Participant? (Yes/No) ____ Previous REVS UP Participant? (Yes/No) ____

Please rank your top 6 project preference with 1 being your first choice. Project descriptions are available on the website: www.csub.edu/revsup

<table>
<thead>
<tr>
<th>Rank</th>
<th>Subject</th>
<th>Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Biology</td>
<td>The role of stress on tetrodotoxin production in rough-skinned newts (Taricha granulosa)</td>
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<tr>
<td>2</td>
<td>Biology</td>
<td>Legume-rhizobium mutualisms affected by nitrogen-deposition</td>
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<tr>
<td>3</td>
<td>Biology</td>
<td>Microplastic abundance in ponds and interactions with aquatic macroinvertebrates</td>
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<tr>
<td>4</td>
<td>Biology</td>
<td>Predatory behavior of a local aggressive mimic, the Pirate Spider Mimetus hesperu</td>
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<tr>
<td>5</td>
<td>Chemistry</td>
<td>Enzymatic Sulfur Reduction with Potential Applications to Diesel Fuels</td>
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<tr>
<td>6</td>
<td>CEECS</td>
<td>Automated Analysis of Cellular Microscopy Images</td>
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<td></td>
<td>CEECS</td>
<td>Smart Home Design and Implementation</td>
</tr>
<tr>
<td></td>
<td>CEECS</td>
<td>Near-Space Balloon Launch (85,000-100,000 feet altitude)</td>
</tr>
<tr>
<td></td>
<td>CEECS</td>
<td>Smart Car with Automatic Parking System</td>
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<tr>
<td></td>
<td>Math</td>
<td>Modeling in Mathematics</td>
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<tr>
<td></td>
<td>Physics and Engineering</td>
<td>Experimental Investigation of the Phenomenon of CO2-Reservoir Oil Miscibility in Terms of the Minimum Miscibility Pressure (MMP)</td>
</tr>
<tr>
<td></td>
<td>Physics and Engineering</td>
<td>Visual Demonstration of the Effect of Ocean Water Rise on Living Conditions in Low Elevation Coastal Area</td>
</tr>
<tr>
<td></td>
<td>Physics and Engineering</td>
<td>Experimental characterization of flow regimes in a pipe</td>
</tr>
</tbody>
</table>
*All components of your application must be turned in together.* The completed application consists of:

___ Application (this form) ____ Personal Statement of Interest ____ Transcripts

___ Letter of recommendation (2 maximum)

Please make sure that the letter(s) of recommendation are collected in a sealed envelope with the signature of your instructor across the back flap.

_I understand that the application for the CSUB Chevron Research Opportunities is due on February 22, 2019 by 5 pm. The completed application consists of the application itself (this form), my statement of interest, a maximum of two letters of recommendation, and transcripts. I am fully aware that submitting an application does not automatically make me a participant._

_________________________  ____________
Student Signature  Date

Application due date is February 22, 2019.

Submit completed applications to:
CSU Bakersfield
School of Natural Sciences, Mathematics, and Engineering
Attn: Chevron REVS UP Program
9001 Stockdale Highway
Bakersfield, CA 93311

****If you wish to deliver your application in person, please drop off in Science Building 3, room 116****
Student Section
After filling in your name, give this form to a science or math instructor or counselor that is able to make comments regarding your academic abilities.

Student Name _________________________________

Instructor/Counselor Section

Please complete the following recommendation for the above student and return to him/her in a sealed envelope with your signature across the back flap.

The above student is applying to participate in a summer research program at CSU, Bakersfield. You comments are very important to us and will be used during the selection process. We appreciate your interest and time in writing on behalf of this student. Please attach additional pages as needed. You may also attach a letter to this form, if it is more convenient; however, we would appreciate your addressing the questions raised here, if possible.

1. How long have you known this student? _______ Years _______ Months

2. On what do you base your recommendation of the applicant?
   _____ Personal contact with student
   _____ Teachers’ comments
   _____ Other counselor observations
   _____ Records
   _____ Other (please explain): _____________________________________________

3. Please give your personal appraisal of the applicant with regard to the following (% of students in relationship to total number of students you are currently working with):

<table>
<thead>
<tr>
<th></th>
<th>Outstanding (Top 1%)</th>
<th>Excellent (Top 10%)</th>
<th>Good (Top 25%)</th>
<th>Average (MID 50%)</th>
<th>Below Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence</td>
<td>______</td>
<td>______</td>
<td>______</td>
<td>______</td>
<td>______</td>
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<tr>
<td>Motivation</td>
<td>______</td>
<td>______</td>
<td>______</td>
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<tr>
<td>Creativity</td>
<td>______</td>
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<tr>
<td>Leadership</td>
<td>______</td>
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</tbody>
</table>
4. Please describe any strengths and/or weaknesses that you have noticed in this student.

Strengths:

Weaknesses:

5. Please describe any particular interests, abilities or talents that you have observed in this student. Has the student shown an interest and talent in the sciences? Please specify which science.

6. Please comment on the exceptional scholastic ability and accomplishments exhibited by the applicant. In addition, please address how the student could benefit from participation in a summer research program.

I understand that this letter of recommendation will only be used for the selection process and will be discarded after selections have been made.

Printed Name  Title

Signature  Date

*Please return this form directly to the applicant in a sealed envelope with your signature across the back flap to ensure confidentiality. APPLICATION DEADLINE – February 22, 2019, 5 pm.*