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 5 through June 29, 2017** in the research laboratories at CSUB.

Additional information can be found at [http://www.csub.edu/revsup](http://www.csub.edu/revsup)

Please email **stem@csub.edu** with questions about the program.

Interested high school students and incoming CSUB freshmen 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 **March 10th, 2017 March 17th, 2017** by **5:00 pm**. Deadline extended!

The projects take place between **June 5 and June 29, 2017 (Monday – Thursday 9:00 a.m. to 4:00 p.m.)**

High School participants will receive a **$500.00** stipend for the summer research program. Incoming CSUB Freshmen with a declared STEM major will receive a **$1,250** stipend.
2017 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) _____

For incoming CSUB Freshman only: Major: __________ CSUB ID# __________________________

Please rank your project preference with 1 being your first choice and 12 being your last 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>
</tr>
<tr>
<td>2</td>
<td>Biology</td>
<td>Do Bacteria Found on the Skin of the Pacific Tree Frog (Pseudacris regilla) Play a Role in Protecting the Frogs from Fungal Disease?</td>
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<tr>
<td>3</td>
<td>Chemistry</td>
<td>The Impact of Roasting Level on the Anticancer Activity of Coffee</td>
</tr>
<tr>
<td>4</td>
<td>Chemistry</td>
<td>Generation and Characterization of Random Mutations of the Active – Site of Lysyl Oxidase</td>
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<tr>
<td>5</td>
<td>Computer Science</td>
<td>Design and Implementation of an Intelligent Home</td>
</tr>
<tr>
<td>6</td>
<td>Computer Science</td>
<td>Automated Medical Image Analysis</td>
</tr>
<tr>
<td>7</td>
<td>Geology</td>
<td>Mineral Analysis of Soda Lake Sediments, California: Implications for the Regional Weathering Evolution</td>
</tr>
<tr>
<td>8</td>
<td>Math</td>
<td>Combinatorial Magic and Geometry</td>
</tr>
<tr>
<td>9</td>
<td>Math</td>
<td>Chaos Theory and Fractal Geometry</td>
</tr>
<tr>
<td>10</td>
<td>Engineering and Physics</td>
<td>Smart and Automatic Irrigation System using Wireless Sensor Network</td>
</tr>
<tr>
<td>11</td>
<td>Engineering and Physics</td>
<td>Thermal Properties of a Solid Material at Room Temperature</td>
</tr>
<tr>
<td>12</td>
<td>Engineering and Physics</td>
<td>Visual Demonstration of the Anatomy of Our Polluted Atmospheric-Air</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 March 17, 2017 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 March 17, 2017.**

Submit completed applications to:

CSU Bakersfield, STEM Student Center
Attn: Chevron REVS UP Program
9001 Stockdale Highway, Bakersfield, CA 93311
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. Your 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>
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<tr>
<td>Motivation</td>
<td>_____</td>
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<td>Creativity</td>
<td>_____</td>
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<tr>
<td>Leadership</td>
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</tr>
</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 – March 17, 2017, 5 pm.