UC Santa Barbara students experience a comprehensive liberal arts education that helps them develop the broad skills of scholarly inquiry in a variety of disciplinary contexts (e.g. analysis, independent thought, critical reasoning, written and oral communication, quantitative and information literacy, etc.). The Undergraduate Alumni Survey collects indirect evidence of the value and quality of skill preparation provided by UCSB. Alumni are asked to rate the importance of various skill areas to their current activities (“very important,” “somewhat important,” “not important”) and the level of preparation they received at UCSB in the same skills (“excellent,” ”more than adequate,” “adequate,” “less than adequate”, “poor”).

In this report, quadrant analysis is used to help identify gaps between the importance of various skill areas to alumni’s current activities and the preparation UCSB provides in those same skills areas. Ratings are standardized and plotted on a quadrant showing the importance of each skill along the horizontal axis and the level of preparation received along the vertical axis, relative to the other skills listed. Below is a sample of how the results are plotted in a quadrant analysis and what the four quadrants represent.

- Skills that appear in Quadrant 1 are less important to alumni, yet UCSB provides satisfactory preparation in these areas.
- Skills in Quadrant 2 represent valuable strengths, receiving high ratings for both importance and preparation.
- Students are less prepared in the skill areas in Quadrant 3, but these skills are also not as essential to their current activities.
- Areas for improvement appear in Quadrant 4, where important skills receive weaker preparation ratings.

**About the Survey:** The Undergraduate Alumni Survey is part of an ongoing effort to assess the short-term impact of a UCSB undergraduate education on the achievements and opinions of alumni. Undergraduate alumni surveys have been administered at UCSB since 1980. The Survey of Spring/Summer 2016 UCSB Undergraduate Alumni was administered online during Fall quarter 2017, approximately one year after graduation. A total of 655 alumni completed the survey for a response rate of 17%.
Overall, undergraduate alumni are well prepared in all of the skill areas addressed in the survey. The majority of respondents report that UCSB provided “more than adequate” or “excellent” preparation in each skill.

Many of the skills are also considered “very important” by recent alumni – the most important being:

- problem solving skills
- the ability to acquire new skills on one’s own
- teamwork
- ability to get along with people of diverse backgrounds and perspectives
- effective speaking skills.

A quadrant analysis chart for all respondents is shown in Figure 2 on the following page. Relative to other skill areas, those that receive higher ratings on both importance and preparation (Quadrant 2) include:

- Ability to acquire new skills and knowledge on your own
- Effective writing skills
- Ability to judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning
- Problem solving skills
- Intellectual curiosity, or the desire to explore new topics, knowledge, or ideas in depth
- Ability to work as a member of a team or group
- Ability to get along with people of diverse backgrounds and perspective

Areas for improvement in undergraduate preparation (Quadrant 4) include:

- Ability to lead others
- Effective speaking skills
Figure 2. Skill Importance & Preparation at UCSB

All respondents (n = 630)

**QUADRANT 1: LESS IMPORTANCE, BETTER PREPARATION**

1. Ability to use the knowledge, ideas, or perspectives gained from your major field
2. Understanding of different cultures, philosophies, and ways of life

**QUADRANT 2: GREATER IMPORTANCE, BETTER PREPARATION**

1. Effective writing skills
2. Ability to acquire new skills and knowledge on your own
3. Ability to judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning
4. Problem solving skills
5. Ability to work as a member of a team or group
6. Ability to get along with people of diverse backgrounds and perspectives
7. Intellectual curiosity, or the desire to explore new topics, knowledge, or

**QUADRANT 3: LESS IMPORTANCE, WEAKER PREPARATION**

8. Ability to understand and apply quantitative principles and methods
9. Ability to understand the scientific method - how scientists ask questions and design experiments
10. Understanding of international perspectives on economic, political, social and cultural issues
11. Understanding of and appreciation for the arts

**QUADRANT 4: GREATER IMPORTANCE, WEAKER PREPARATION**

12. Effective speaking skills
13. Ability to lead others
A summary of the skill ratings by academic division (see Figure 3) reveals a consensus regarding competency areas related to lifelong learning and inquiry. In each field of study, alumni have been well prepared at UCSB to employ the following skills, which they consider important to their current activities:

- Ability to acquire new skills and knowledge on your own
- Ability to judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning
- Intellectual curiosity, or the desire to explore new topics, knowledge, or ideas in depth
- Problem solving skills
- Ability to work as a member of a team or group
- Ability to get along with people of diverse backgrounds and perspectives

Divisional results also indicate where levels of preparation in important skill areas differ across divisions. For example:

- Science and engineering students are better prepared in quantitative methods, but less prepared in effective writing skills than students in the humanities or social sciences. Interestingly, while MLPS students still report high levels of preparation in quantitative methods, they no longer report this skill area as being important to their current activities.

- Women in STEM fields (Science, Technology, Engineering and Math) had a larger gap in the level of preparation they received in this area, compared to men in STEM. An opportunity for improvement among the men in STEM fields is the ability to get along with people of diverse backgrounds.

Because the value placed on certain skills tends to vary across disciplines (i.e. quantitative methods may be more relevant to science and math fields), separate quadrant analysis charts by academic division are presented in the remaining pages of this report.
Figure 3. Summary of Skill Importance & Preparation by Academic Division

<table>
<thead>
<tr>
<th>Quadrant</th>
<th>ENGR: n = 50</th>
<th>HUFA: n = 73</th>
<th>MLPS: n = 271</th>
<th>SOCSCI: n = 223</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to acquire new skills and knowledge on your own</td>
<td>ENGR, HUFA, MLPS, SOCSCI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to use the knowledge, ideas, or perspectives gained from your major</td>
<td>HUFA, MLPS, SOCSCI</td>
<td>ENGR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning</td>
<td>ENGR, HUFA, MLPS, SOCSCI</td>
<td>ENGR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual curiosity, or the desire to explore new topics, knowledge, or ideas in depth</td>
<td>ENGR, HUFA, MLPS, SOCSCI</td>
<td>ENGR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to work as a member of a team or group</td>
<td>ENGR, HUFA, MLPS, SOCSCI</td>
<td>ENGR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem solving skills</td>
<td>ENGR, HUFA, MLPS, SOCSCI</td>
<td>ENGR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to get along with people of diverse backgrounds and perspectives</td>
<td>ENGR, HUFA, MLPS, SOCSCI</td>
<td>ENGR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to understand and apply quantitative principles and methods</td>
<td>MLPS</td>
<td>ENGR</td>
<td>HUFA, SOCSCI</td>
<td></td>
</tr>
<tr>
<td>Effective writing skills</td>
<td>HUFA, SOCSCI</td>
<td>ENGR</td>
<td>MLPS</td>
<td></td>
</tr>
<tr>
<td>Understanding of different cultures, philosophies, and ways of life</td>
<td>MLPS</td>
<td>HUFA, SOCSCI</td>
<td>ENGR</td>
<td></td>
</tr>
<tr>
<td>Ability to understand the scientific method and how scientists ask questions</td>
<td>MLPS</td>
<td>ENGR</td>
<td>HUFA, SOCSCI</td>
<td></td>
</tr>
<tr>
<td>Understanding of and appreciation for the arts</td>
<td>HUFA</td>
<td>ENGR, MLPS, SOCSCI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding of international perspectives on economic, political, social and cultural issues</td>
<td>SOCSCI</td>
<td>ENGR, HUFA, MLPS</td>
<td>MLPS, SOCSCI</td>
<td></td>
</tr>
<tr>
<td>Ability to lead others</td>
<td>ENGR, HUFA</td>
<td>MLPS, SOCSCI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective speaking skills</td>
<td>ENGR, HUFA, MLPS, SOCSCI</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 4a. Skill Importance & Preparation at UCSB by Academic Division

Engineering (n = 50)

QUADRANT 1: LESS IMPORTANCE, BETTER PREPARATION

None.

QUADRANT 2: GREATER IMPORTANCE, BETTER PREPARATION

(c) Ability to understand and apply quantitative principles and methods
(d) Ability to acquire new skills and knowledge on your own
(e) Ability to understand the scientific method and how scientists ask questions
(f) Ability to use the knowledge, ideas, or perspectives gained from your major field
(g) Ability to judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning
(h) Problem solving skills
(i) Ability to work as a member of a team or group
(j) Ability to get along with people of diverse backgrounds and perspectives
(o) Intellectual curiosity, or the desire to explore new topics, knowledge, or ideas in depth

QUADRANT 3: LESS IMPORTANCE, WEAKER PREPARATION

(a) Effective writing skills
(b) Ability to lead others
(k) Understanding of different cultures, philosophies, and ways of life
(m) Understanding of international perspectives on economic, political, social and cultural issues
(n) Understanding of and appreciation for the arts

QUADRANT 4: GREATER IMPORTANCE, WEAKER PREPARATION

(b) Effective speaking skills
Figure 4b. Skill Importance & Preparation at UCSB by Academic Division

Humanities and Fine Arts (n = 73)

QUADRANT 1: LESS IMPORTANCE, BETTER PREPARATION
(f) Ability to use the knowledge, ideas, or perspectives gained from your major field
(n) Understanding of and appreciation for the arts

QUADRANT 2: GREATER IMPORTANCE, BETTER PREPARATION
(a) Effective writing skills
(d) Ability to acquire new skills and knowledge on your own
(g) Ability to judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning
(j) Ability to work as a member of a team or group
(h) Problem solving skills
(i) Ability to work as a member of a team or group
(k) Understanding of different cultures, philosophies, and ways of life
(l) Ability to get along with people of diverse backgrounds and perspectives
(o) Intellectual curiosity, or the desire to explore new topics, knowledge, or ideas in depth

QUADRANT 3: LESS IMPORTANCE, WEAKER PREPARATION
(c) Ability to understand and apply quantitative principles and methods
(e) Ability to understand the scientific method - how scientists ask questions and design experiments
(l) Ability to lead others
(m) Understanding of international perspectives on economic, political, social and cultural issues

QUADRANT 4: GREATER IMPORTANCE, WEAKER PREPARATION
(b) Effective speaking skills
Figure 4c, Skill Importance & Preparation at UCSB by Academic Division

Math, Life and Physical Sciences (n = 271)

QUADRANT 1: LESS IMPORTANCE, BETTER PREPARATION
(c) Ability to understand and apply quantitative principles and methods
(f) Ability to use the knowledge, ideas, or perspectives gained from your major field
(e) Ability to understand the scientific method and how scientists ask questions.
(k) Understanding of different cultures, philosophies, and ways of

QUADRANT 2: GREATER IMPORTANCE, BETTER PREPARATION
(d) Ability to acquire new skills and knowledge on your own
(g) Ability to judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning
(h) Problem solving skills
(i) Ability to work as a member of a team or group
(l) Ability to get along with people of diverse backgrounds and perspectives
(o) Intellectual curiosity, or the desire to explore new topics, knowledge, or ideas in depth

QUADRANT 3: LESS IMPORTANCE, WEAKER PREPARATION
(m) Understanding of international perspectives on economic, political, social and cultural issues
(n) Understanding of and appreciation for the arts

QUADRANT 4: GREATER IMPORTANCE, WEAKER PREPARATION
(a) Effective writing skills
(b) Effective speaking skills
(i) Ability to lead others
Figure 4d. Skill Importance & Preparation at UCSB by Academic Division

Social Sciences (n = 223)

QUADRANT 1: LESS IMPORTANCE, BETTER PREPARATION

- (f) Ability to use the knowledge, ideas, or perspectives gained from your major field
- (k) Understanding of different cultures, philosophies, and ways of life
- (m) Understanding of international perspectives on economic, political, social and cultural issues

QUADRANT 2: GREATER IMPORTANCE, BETTER PREPARATION

- (a) Effective writing skills
- (d) Ability to acquire new skills and knowledge on your own
- (g) Ability to judge the value of information, ideas, etc.
- (h) Problem solving skills
- (j) Ability to work as a member of a team or group
- (l) Ability to get along with people of diverse backgrounds and perspectives
- (o) Intellectual curiosity, or the desire to explore new topics, knowledge, or ideas in depth

QUADRANT 3: LESS IMPORTANCE, WEAKER PREPARATION

- (c) Ability to understand and apply quantitative principles and methods
- (e) Ability to understand the scientific method - how scientists ask questions and design experiments
- (n) Understanding of and appreciation for the arts

QUADRANT 4: GREATER IMPORTANCE, WEAKER PREPARATION

- (b) Effective speaking skills
- (l) Ability to lead others

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Survey of Spring/Summer 2016 Undergraduate Alumni

Page 9
Figure 5a. Skill Importance & Preparation at UCSB – STEM fields by Gender

Women in STEM (n = 106)

**QUADRANT 1: LESS IMPORTANCE, BETTER PREPARATION**

(e) Ability to understand the scientific method - how scientists ask questions and design experiments
(f) Ability to use the knowledge, ideas, or perspectives gained from your major field
(k) Understanding of different cultures, philosophies, and ways of life

**QUADRANT 2: GREATER IMPORTANCE, BETTER PREPARATION**

(c) Ability to understand and apply quantitative principles and methods
(d) Ability to acquire new skills and knowledge on your own
(g) Ability to judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning
(h) Problem solving skills
(i) Ability to work as a member of a team or group
(j) Ability to get along with people of diverse backgrounds and perspectives
(o) Intellectual curiosity, or the desire

**QUADRANT 3: LESS IMPORTANCE, WEAKER PREPARATION**

(l) Ability to lead others
(m) Understanding of international perspectives on economic, political, social and cultural issues
(n) Understanding of and appreciation for the arts

**QUADRANT 4: GREATER IMPORTANCE, WEAKER PREPARATION**

(a) Effective writing skills
(b) Effective speaking skills
Figure 5b. Skill Importance & Preparation at UCSB – STEM fields by Gender

Men in STEM (n = 118)

QUADRANT 1: LESS IMPORTANCE, BETTER PREPARATION

None

QUADRANT 2: GREATER IMPORTANCE, BETTER PREPARATION

(c) Ability to understand and apply quantitative principles and methods
(d) Ability to acquire new skills and knowledge on your own
(e) Ability to understand the scientific method - how scientists ask questions and design experiments
(f) Ability to use the knowledge, ideas, or perspectives gained from your major field
(g) Ability to judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods and reasoning
(h) Problem solving skills
(i) Ability to work as a member of a team or group
(j) Ability to get along with people of diverse backgrounds and perspectives
(k) Intellectual curiosity, or the desire to explore new topics, knowledge, or ideas in depth

QUADRANT 3: LESS IMPORTANCE, WEAKER PREPARATION

(a) Effective writing skills
(l) Ability to lead others
(k) Understanding of different cultures, philosophies, and ways of life
(m) Understanding of international perspectives on economic, political, social and cultural issues
(n) Understanding of and appreciation for the arts

QUADRANT 4: GREATER IMPORTANCE, WEAKER PREPARATION

(b) Effective speaking skills