

# Guide for Students Enrolled in the Cooperative Education (Co-op) Program

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1. Your co-op experience must be full time employment and a full semester in length, either spring or fall (15 weeks). **Summer internships will also qualify but are limited to a maximum of two (2) credits (10 weeks).** Please note the academic catalog description below.

*CP 297/397/497 Cooperative Education*

*Credits: 1 to 3*

*Applied, monitored and supervised field-based learning experience for which the student may or may not be paid. Students gain practical experience; they follow a negotiated and or directed plan of study established between the student, instructor and field experience supervisor. Due to the presence of a field experience supervisor, a lower level of supervision is provided by the instructor in these courses than is the case in an internship or practicum course. Students must satisfy departmental co-op requirements, which include a written report of the co-op work experience and an employer's evaluation, to earn credit for the course. Minimum GPA and other co-op eligibility requirements vary among employers. Because the work performed by a student while on co-op is equivalent to the workload on a full-time student, a student on co-op assignment who is registered for CP credit shall be considered to have full-time status.*

2. Submit a completed hard copy of the [ME Department Co-op Approval Form <found here>](#) to Dr. Duane Abata, CM 125. You must do this before registering for class.
3. Sign up for CP397 if you are in your sophomore or junior year and CP497 (3 credit maximum) if you are in your senior year.
  - ➔ a. You must sign up for this class **BEFORE** your co-op experience. You cannot do this retroactively, i.e., after the co-op experience.
  - ➔ b. You can use these credits (up to 3) for your senior elective in this department - additional credits earned will show up on your transcripts but cannot be counted toward graduation.
  - ➔ c. The credit amount shown in WebAdvisor is **EDITIBLE**. You must change the number of credits in WebAdvisor to reflect the number of credits you wish to count for the CO-OP experience. While this seems as a 'no-brainer' for some there are a surprisingly large number of students that sign up for 1 credit when they really want 3 credits. Adding credits after the Late Add/Drop date cannot be done and you cannot correct this error after the fact.

[Generally, students who wish to use these credits as a senior elective usually register for three credits; otherwise students register for one credit since tuition is on a per credit basis.]

4. Print out the [CO-OP Employer Evaluation Form <found here>](#) and give it to your supervisor. This form completed by your supervisor must be included in your final report.
  5. Prepare a report (guidelines on the next page) and hand in your report to Dr. Abata. You may either place your report in his mailbox in Rm. CM129 (main ME office) or give it to him directly in Rm. CM125. The report is relatively easy. It can be written in less than an hour. Double spacing is appreciated. No covers or binders please. Simply staple in the upper left hand corner. Hand in a hardcopy only – no email attachments.
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### **CO-OP Grading Policy**

1. You will receive a ‘C’ grade for the semester of your co-op experience.
2. After your report is received, accepted, and graded this ‘C’ will be changed to reflect your report submittal (A, B, or C). This report is required. You must turn in your report no later than the end of the last day of classes before final exam week of the semester following the CO-OP experience.
3. If you fail to turn in your report by the due date (see above) your grade will be changed to an F.
4. You will NOT receive any reminder or notification of this report deadline.
5. Plan ahead! You can turn in your report any time before the due date.

You can write your report before the end of your co-op experience and have your supervisor fill out the evaluation within the last few weeks. If you are living out of the area you can mail the report to Dr. Abata [Dr. Duane Abata/SDSMT/501 E. St. Joseph St./ Rapid City, SD 57701].

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# STUDENT REPORT FORMAT

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You must follow this format for your Co-op report. See the sample report at the end of this format page. Your report should be no more than five pages including the title page, supervisor evaluation, and executive summary (see below). No covers or binders please. Simply staple in the upper left hand corner.

*Your grade for this coop experience will be based upon your supervisor's evaluation and your report. The grade for the report will not be based upon length but rather on conciseness and neatness. Use your technical writing skills.*

## A. Page One - Title Page

1. Your name, student number, and email address
2. Your employer (include the division of employment if applicable) and the location of your employment
3. Course Number and Semester (e.g., CP497 Fall Semester 2015)
4. Date of submittal

## B. Page Two - Supervisor Evaluation

This is the [CO-OP Employer Evaluation Form](#) completed by your supervisor. It must be signed and dated.

## C. Page Three - Executive Summary

This is a brief synopsis of your work, no more than one or two paragraphs in length.

## C. Pages Four and Five

1. Briefly describe your work assignment. Double spacing is appreciated.
2. Briefly describe how your education at SDSMT related to this work assignment.
3. Briefly describe how this co-op experience may have influenced your career goals and ambitions.

**See the sample report on the next few pages.**

# **Harvesting Bananas in Severe Climates A Cooperative Educational Experience**

Chiquita Banana Farm  
Yellow Banana Division  
Nome, Alaska

Alfred E. Neuman  
SDSMT Student Number 1234567  
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Department of Mechanical Engineering  
South Dakota School of Mines and Technology

CP497 Fall Semester 2015

Submitted February 14, 2016

**SOUTH DAKOTA SCHOOL OF MINES AND TECHNOLOGY**  
**Rapid City, South Dakota 57701**  
**Employer's Evaluation of Cooperative Education Student**

Name of Student Alfred Neuman Dates of Employment Sept 3 – Dec 5, 2015

Employer Chiquita Banana Farm

**INSTRUCTIONS -IMMEDIATE SUPERVISOR:** Please evaluate the student objectively, comparing him/her with other students of comparable academic level, with other personnel assigned the same or similarly classified jobs, or with individual standards.

**RELATIONS WITH OTHERS**

- Exceptionally well accepted
- Works well with others
- Gets along satisfactorily
- Has some difficulty working with others

**JUDGMENT**

- Exceptionally mature
- Above average in making decisions
- Usually makes the right decision
- Often uses poor judgment

**ABILITY TO LEARN**

- Learns very quickly
- Learns readily
- Average in learning
- Rather slow to learn

**ATTENDANCE:**  Regular  Irregular

**OVER-ALL PERFORMANCE:**

Outstanding  Very Good  Average  Marginal  Unsatisfactory

Additional remarks (over if necessary): *He was a very good employee and served as a role model for other student employees*

**ATTITUDE -APPLICATION TO WORK**

- Outstanding in enthusiasm
- Very interested and industrious
- Average in diligence and interest
- Somewhat indifferent

**DEPENDABILITY**

- Completely dependable
- Above average in dependability
- Usually dependable
- Sometimes neglectful or careless

**QUALITY OF WORK**

- Excellent
- Very good
- Average
- Below average

**PUNCTUALITY:**  Regular  Irregular

This report has been discussed with student.  Yes  No

I have read the student's academic co-op report.  Yes  No

Rated by George Scott Title chief cook/washer Dept. kitchen

Signed George Scott Date \_\_\_\_\_

This form is recommended by the Cooperative Education Division, ASEE

## **Harvesting Bananas in Severe Climates A Cooperative Educational Experience**

Chiquita Banana Farm  
Yellow Banana Division  
Nome, Alaska

### **Executive Summary**

This assignment was both challenging and rewarding. It involved a ‘hands on’ experience and some supervisory exposure as well. The assignment was located just outside of Nome, Alaska where relatively unknown banana plantations are common. Bananas are one of the most popular fruits in the world. The ‘hands on’ experience included picking bananas from large plants, inspecting the fruit for damage and poisonous crawlers, and placing the fruit in large containers that were shipped to international shipyard ports in Rapid City, South Dakota. Some supervisory skills were also developed during early morning as the plantations were often frequented with helpers of the *Macaca Fascicularis* and related families. These helpers were quite willing to assist for relatively small rewards although a few encounters challenged supervisory skills.

## **Work Assignment**

Bananas are one of the most popular fruit in the world. Banana plants are not actually trees but large herbs with succulent, juicy stems that arise from a fleshy corm. Suckers continually spring up around the main plant with the oldest sucker replacing the main plant as it fruits and dies. Smooth, oblong to elliptical, fleshy stalked leaves unfurl in a spiral around the stem. A terminal spike, the inflorescence, shoots out from the heart in the tip of the stem. As it opens, clusters of white flowers are revealed. Female flowers are borne on the lower 5-15 rows and males upon the upper rows. As the young fruit, technically a berry, develop, they form slender green fingers which grow into a “hand” of bananas that droops due to its weight until the bunch is upside down.

This assignment was challenging and rewarding at times. It involved picking the bananas from the plants and supervising others, mostly monkeys, to ensure productivity and quality was optimized in all situations.

The size of the fruit varies depending upon the variety of banana, so isn't always a good indicator for picking bananas. Generally, banana tree harvesting can commence when the fruit on the upper hands are changing from dark green to a light greenish yellow and the fruit is plump. Banana stalks take 75-80 days from flower production to mature fruit.

There were some difficulties at times. Some of the staff was prone to eat the bananas rather than place them in the containers. On occasion, one or more of these violators threw the peelings at others leading to loud cries of disapproval. Violence was not a problem during these situations as these workers, *Macaca Fascicularis*, were usually complacent although sometimes retaliated with acts that have been viewed, on more than one occasion, in the dormitory environment on the SDSMT campus.

Before picking bananas, employees look for “hands” of fruit that are filled out with no prominent angles, are light green and with flower remnants that are easily rubbed off. The fruit will

generally be 75% mature, but bananas can be cut and used at different stages of ripeness and even green ones can be cut and cooked much like plantains. Home growers will generally harvest the fruit 7-14 days prior to ripening on the plant.

Once it was ascertained that it was time for banana tree harvesting, a sharp knife was used to cut the “hands” off. A small portion of the stalk, about 6-9 inches of stalk were left on the hand to make the harvested bananas easier to carry, especially if it was a large bunch. Sometimes the harvest ended up with one or many hands after harvesting banana trees. The hands often did not mature all at once, which extended the time to consume them. Once the task of harvesting the banana trees was completed, the bananas were stored in a cool, shady area to avoid damage to them.

### **Education at SDSMT and This Work Assignment**

Educational experiences and this co-op assignment meshed quite well. Concepts learned in Calculus MA211 and Physics PH304 were particularly useful since gravity played an important role in banana picking and gathering. Economics HU101 was also very useful since production, quality control, and company profits were important in the long range health of this essential agricultural sector of our nation’s economy. Experiences and skills learned in extracurricular activities such as basketball and choir were especially helpful as these experiences honed supervisory capabilities.

### **Co-op Experience and Career Goals**

This co-op experience was invaluable with helping steer career goals toward the automotive or related industries as far away as possible from banana plantations in Alaska since it became obvious to all that picking bananas, although necessary, was not a good long term objective in deep snow.