# Objective of Computer Science

The goal of the Computer Science major at Behrend is to produce graduates with a firm foundation in the fundamentals of computer science along with a significant background in one or more of the natural sciences to provide context. Students are encouraged to pursue a minor in one of the natural sciences (biology, chemistry), math, or statistics. Students prepare for the major by taking lower-division courses in programming, discrete math, computer organization, and data communications. They then complete upper-division courses in data structures and algorithms, data base management systems, net-centric programming, programming language fundamentals, and operating systems, and systems programming.

Graduates of this program will be prepared for a wide variety of computer-oriented careers in business, industry, and government, particularly in areas that require the practical application of computer science concepts and techniques to solving problems in the natural sciences. In addition, graduates will be prepared to pursue graduate study in computer science or in computationally intensive sub-disciplines of the natural sciences, such as bio-informatics, computational biology, computational physics, or computational chemistry.

# Computer Science Entrance to Major Requirements

To be eligible for entrance to the Computer Science (CMPBD) major, a student must have completed MATH 140 GQ(4), MATH 141 GQ(4), CMPSC 121 GQ(3), CMPSC 122(3), and one of the following: BIOL 110 GN(4)**,**or CHEM 110 GN(3) and CHEM 111 GN(1) or PHYS 211 GN(4) with a grade of C or better in each of these courses.

# Credits Needed for B.S. degree in Computer Science

For a B.S. degree in Computer Science, a minimum of 122-123 credits is required. A student enrolled in this major must earn at least a grade of C in each 300- and 400-level course in the major field.

# Computer Science Available Electives

1 credit

# What Computer Science Is

This major builds on a firm foundation of computer science, mathematics, and natural science courses. The major stresses the fundamentals of computer science - programming, discrete math, data structures, graphics, analysis and design of algorithms - and their practical applications in system programming, database management, scientific visualization, and telecommunications. Graduates of this program will be prepared for a wide variety of computer-oriented careers in business, industry, and government, particularly in areas that require the practical application of computer science concepts and techniques to solving problems in the natural sciences. In addition, graduates will be prepared to pursue graduate study in computer science or in computationally intensive subdisciplines of the natural sciences, such as bioinformatics, computational biology, computational physics, or computational chemistry.

# Important Dates

* **Fall Welcome Week:**Thursday, August 17–Sunday, August 20
* **First day of class:**Monday, August 21
* **Fall (Thanksgiving) Break:**Sunday, November 19–Saturday, November 25
* **Final Exams:**December 11–15
* **Spring 2018 semester begins:**Monday, January 8, 2018
* **Spring Break:**March 4–10, 2018
* **Finals:**April 30–May 4, 2018

# WHAT TO PACK

Consider coordinating with your roommate(s) to prevent duplication of large or shared items.

* Address book, stamps, stationery
* Alarm clock
* Backpack
* Baskets for toiletries and storage
* Bed Linen: sheets (extra-long twin size), mattress pad (extra-long twin size),bedspread/blanket, and pillow
* Bed risers
* Bike
* Cleaning supplies (cleaner, paper towels)
* Clothing (bathrobe)
* Computer, printer, and cables
* Desk items (lamp, pens/pencils/highlighters, paper, calendar, calculator, tape, scissors, stapler, paperclips)
* Fan (portable)
* Financial items (checking/savings account, credit/debit card, health insurance card, Social Security card, driver's license or photo ID)
* First-Aid kit (band aids, cotton balls, cotton swabs, cold/cough medicine, aspirin)
* Food items (can opener, bottled beverages, coffee maker with automatic shutoff, one set of silverware/plates/bowls/glasses, condiments, snacks, dish detergent/towel)
* Games (cards, board games)
* Hangers
* Laundry basket/bag, detergent, iron
* Padlocks (desk, laptop, and bike)
* Room decorations\*
* Sewing kit/safety pins
* Snow shovel to store in your car
* Television
* Toiletry items
* Towels
* Umbrella

\* Posters and photos must be hung with plastic tack.

Returning students living in Behrend Apartments are permitted to and should bring kitchen items such as pots, pans, dishes, silverware, etc. These apartments offer standard kitchen appliances, but housewares are not provided.

# Cannot Bring / Restricted Items

A complete list of items is available in the [Terms, Conditions, and Regulations](http://behrendcampusliving.psu.edu/terms-and-conditions).

* Air conditioners (portable or window units)
* Appliances (hot plates, toaster ovens, microwaves, etc.)
* Ashtrays\*
* Candles and incense
* Ceiling fans
* Draperies
* Firearms
* Furniture (waterbed, futon, chairs, etc.)
* Grills (indoor/outdoor)
* Halogen lamps
* Heaters
* Pets (small aquarium tanks with fish only are permitted)
* Wireless routers (wired routers are okay so long as the wireless connection is turned off)

\* Smoking is prohibited in all University buildings, including residence halls and dining facilities.

# To-Do Before Moving In

CONTACT YOUR ROOMMATE

You will receive notification by mid-July informing you when you can view your room assignment information on [eLiving](http://www.eliving.psu.edu/). Your room assignment information will include your housing assignment and roommate information. If you have not met your roommate(s), give them a call and introduce yourself. Now is a good time to talk about your interests, your families, why you chose Penn State, and what each of you plans to bring with you. This way, you won't duplicate items like TVs, game consoles, or DVD players. For a complete list of items that are prohibited in the residence area, refer to the Housing Contract [Terms, Conditions, and Regulations](http://behrendcampusliving.psu.edu/terms-and-conditions).

ENROLL IN CLASSES

All students must be scheduled for classes to live in the residence halls.

Students arriving that are not scheduled for classes will be given a timeframe to enroll or will be required to vacate on-campus housing.

If you have decided not to attend Penn State this fall but received a room assignment, please [contact](http://behrendcampusliving.psu.edu/contact-us) Housing and Food Services as soon as possible to discuss canceling your Housing Contract. This will grant another student the opportunity to live on campus, as well as provide the maximum refund possible for you.

COMPLETE THE IMMUNIZATON VERIFICATION PROCESS

All incoming undergraduate and graduate students must submit proof of immunizations prior to their arrival on campus. Visit the [University Health Services website](http://studentaffairs.psu.edu/health/immunizations) for information on required immunizations and to download the Penn State Immunization Verification Form. Using the two-step process outlined on the website, submit your information to my UHS prior to arriving on campus.

Immunization requirements are applicable to all incoming students at University Park and Commonwealth Campuses. For questions or more information, visit [University Health Services website](http://studentaffairs.psu.edu/health/immunizations)or email [UHS-HIM@psu.edu](mailto:uhs-him@psu.edu).

PENN STATE ID+ CARD

The [Penn State id+ Card](http://www.idcard.psu.edu/) is the official identification card for Penn State. It allows you 24-hour admittance to your residence hall, access to your Campus Meal Plan, and access to any funds you've deposited in your [LionCash+](http://www.idcard.psu.edu/students/lioncash.shtml) account, which you can use to pay for bookstore purchases, off-campus merchant purchases, University laundry facilities, and more. If you did not have your picture taken for your id+ card prior to check-in, you will need to visit the Housing and Food Services Office on move-in day to receive your id+ card.

PREPARE/PACK

Bring personal items that will help you feel at home in your new room. Review our helpful checklist to find out which items you [should bring](http://arrival.psu.edu/What-Pack-behrend) and which you should [leave at home](http://arrival.psu.edu/what-leave-behind-behrend). For a listing of items that are prohibited in the residence halls, refer to the [Terms, Conditions, and Regulations](http://behrendcampusliving.psu.edu/terms-and-conditions).

We suggest that you pack light when you come for Arrival. Don't bring all your belongings on your first trip to campus. You may want to wait to see how much storage space you have and then plan on bringing additional items at another time. Pack everything in boxes or storage bins; clearly mark each with your name and room number.

SET UP YOUR COMPUTER OR GAME CONSOLE FOR A WIRED CONNECTION

All residence halls are equipped with [Wi-Fi](http://rescom.psu.edu/wireless-setup)and in-room wired connections. For more information about wired connections, including step-by-step configuration instructions and computer system requirements, visit [ResCom](http://rescom.psu.edu/wired-room-connection).

CONSIDER EXPANDED CABLE

Your room and board fee includes the cost of basic cable television service. If you are interested in expanded service, you can contact [Time Warner Cable](http://www.timewarnercable.com/)  for information about rates and billing options for expanded service.

### WHAT TO BRING TO CHECK-IN

* Penn State id+ card or other photo ID
* Yourself (you may not send a friend or family member to check-in for you)

### WHAT YOU’LL RECEIVE AT CHECK-IN

* Room key
* Room check-in sheet
* Other important information

# YOUR FIRST DAY ON CAMPUS

LEARN ABOUT JOB OPPORTUNITIES

Do you want to work on campus? Many on-campus departments offer exciting job opportunities. Housing and Food Services employs many students, and offers flexible hours and a convenient work location that makes it easy to fit a job into your busy life. Watch for signs and advertisements for more information, or complete an [online application](https://www.absecom.psu.edu/AUX_HR_EMPLOYMENT/LOGON/EMPLOYMENT_LOGON_WIN.cfm) to work for Housing and Food Services.

SET UP YOUR COMPUTER

Once you've moved into your room, you can set up your Internet connection by going to<https://restech.bd.psu.edu/Internet.aspx>.

ENJOY FUN STUFF

There will be plenty of activities during the week - tours and movies, games and crafts, and even karaoke. Take the first few days upon your arrival to explore all the new and exciting things that you can do during the semester! Check out your orientation packet for more details.

TAKE A TOUR

Take a tour of campus and learn where your classes will be, find bus stop locations, visit University landmarks, and meet some new people. Learn about the history of Penn State as you walk the expansive campus. Remember to bring comfortable shoes.

Lion Ambassadors will be hosting campus tours on Sat., Aug. 21. Tours will start on the hour between 11:00 a.m.-2:00 p.m., and will meet at the front entrance of the Reed Student Union Building.

READ A NEWSPAPER

The [Newspaper Readership Program](http://www.newspapers.psu.edu/) is provided to enhance your living and learning experience. The local paper the Erie Times and national favorites (USA Today and The New York Times) are available free of charge Monday through Friday throughout campus in special newspaper machines. Your Penn State id+ Card is used to open the machines.

# All residence bedrooms and suites include these amenities:

* Bed with mattress (extra long twin 80 x 36)
* Desk with lamp and chair
* Dresser \*\*
* Wall-to-wall carpet in Ohio, Tiffany, Tigress, and Porcupine; wood floors in Almy, Lawrence, Niagara, Perry, and Senat
* Microwave/refrigerator unit \*
* Smoke detector \*
* Closet or wardrobe
* Wastebasket
* Window blinds
* Cable TV connection \*
* Internet connection

\* one per bedroom

\*\* Ohio Hall: a six-drawer dresser is provided in a double suite, and a three-drawer dresser in a single suite.

# STUDENT RESPONSIBILITIES

Each student is responsible for the condition of their residence room, furnishings, and any damages or losses that may occur during occupancy. Students should do all they can to prevent unnecessary cleaning needs that adds to the workload of housekeeping staff. Additional cleaning requirements beyond the normal cleaning schedules results in less time for staff to spend on their routine tasks to meet established cleaning standards.

Do your part to help keep the residence halls clean:

* Dispose of trash in designated areas, making sure everything goes in—not around—the containers. Please don't put personal trash in bathroom or lobby receptacles.
* Sort recyclable material by following the instructions on the receptacles.
* Clean up after yourself. If you make a mess, it's your responsibility to clean it up.
* Put what you sweep from your room into the trash can, not the hall.
* Clean your room regularly.
* Never put food down the bathroom sinks.

Vacuum cleaners are available for student use. Please see your RA for information.

# CLEANING

Housekeeping staff is available Monday-Friday, 8:00 a.m.-4:30 p.m., and Saturday and Sunday, 9:00 a.m.-5:30 p.m. to clean and maintain residence hall buildings. To ensure a comfortable and healthy living environment, the housekeeping staff performs the following tasks:

* Cleaning and disinfecting bathrooms and fixtures on a rotating schedule
* Surface cleaning bathrooms
* Cleaning and disinfecting showers
* Removing common area trash and recycling material
* Sweeping and vacuuming lobby areas and hallways
* Cleaning lobby areas
* Repairing and maintaining building system components (as needed)
* Performing other duties as necessary

#### TELEVISION SERVICE

One cable TV connection is provided in each residence room, and basic service is provided by Time Warner Cable.

#### MAINTENANCE REQUESTS

Routine maintenance requests can be submitted [online](http://fixit.psu.edu/)or by calling Housing and Food Services during normal business hours at 814-898-6161.

#### EMERGENCY CONTACTS

Housing and Food Services 814-898-6161  
Residence Life 814-898-6111  
Police Services 814-898-6101

#### DIFFERENCE BETWEEN ROUTINE AND EMERGENCY REPAIRS

Routine Repairs are problems that can be scheduled, and does not require immediate attention—even though the student would like it taken care of as soon as possible. Examples include a burned-out light bulb, problems with the refrigerator/microwave unit, a torn window screen, etc.

**Emergencies** are identified as anything that needs to be fixed immediately. If it's not remedied, serious injury or damage will result. Emergency repair examples include:

* Loss of hot or cold water
* Loss of heat
* Loss of steam supply
* Loss of electricity (beyond normal power outages)
* Electrical hazard
* Flooding or major leak
* Fire
* Gas leak
* Any condition that represents a significant imminent threat or potential hazard to the community
* Glass window breakage that is a potential safety and/or security hazard
* Pest emergencies (bats, bees, etc.)

#### LOCKOUTS

For lockouts or lock problems, contact Housing and Food Services at 814-898-6161 during normal business hours. After hours, contact Police Services at 814-898-6101.

# BEHREND TV CHANNEL LIST

For current program schedules, visit the [TWC website](http://tv.twcc.com/listings) and choose Time Warner Suburban Erie (Harborcreek) [16563].

|  |  |
| --- | --- |
| Channel # | Channel Name & Location |
| 3 | WSEE/CW CH 22 |
| 4 | WJET/ABC CH 24 |
| 5 | WSEE/CBS CH 35 |
| 6 | WFXP/FOX CH 66 |
| 7 | WQLN/PBS CH 54 |
| 10 | C-SPAN |
| 11 | TBS |
| 12 | WICU/NBC CH 12 |
| 14 | WUAB/MNTV CH 43 |
| 15 | HSN |
| 16 | EWTN |
| 17 | QVC |
| 18 | WQLN ETC |
| 20 | DISCOVERY |
| 21 | SPORTS TIME OHIO |
| 22 | PA CABLE NETWORK |
| 23 | CNN |
| 24 | LIFETIME TELEVISION |
| 25 | THE WEATHER CHANNEL |
| 26 | AMERICAN MOVIE CLASSICS |
| 27 | USA |
| 28 | ROOT SPORTS |
| 29 | ESPN |
| 30 | ESPN 2 |
| 31 | BIG TEN NETWORK |
| 32 | ANIMAL PLANET |
| 33 | HLN |
| 34 | TNT |
| 35 | NICKELODEON |
| 36 | ABC FAMILY |
| 37 | SPIKE TV |
| 38 | MTV |
| 39 | VH1 |
| 40 | CNBC |
| 41 | BTN |
| 42 | FX |
| 43 | FOX NEWS |
| 44 | TV LAND |
| 45 | A&E |
| 47 | MSNBC |
| 48 | HALLMARK |
| 49 | FOX SPORTS OHIO |
| 50 | SCIENCE CHANNEL |
| 51 | HISTORY |
| 52 | TLC |
| 53 | E! |
| 54 | BRAVO |
| 55 | TCM |
| 56 | DISNEY CHANNEL |
| 57 | HGTV |
| 58 | FOOD NETWORK |
| 59 | SYFY |
| 60 | CARTOON NETWORK |
| 61 | COMEDY CENTRAL |
| 70 | ION TELEVISION |
| 72 | TRAVEL CHANNEL |

# Smoking

In compliance with University policy, the use of all tobacco products, including smoking, are prohibited in all parts of the residence areas and dining facilities. This includes individual student bedrooms.

# Access Problems

If your id+ card doesn't work in the card reader of your residence hall, contact a roommate, Residence Life, or Police Services. Then call or email Housing and Food Services so they can identify and fix the problem.

# Moving Out

**To avoid charges for damages and additional clean-up, please follow these move-out instructions:**

ROOM

* Remove all personal belongings from your room.
* Remove all decorations, stickers, and tape/putty from surfaces.
* Clean the furniture, including the interiors of drawers, shelves, etc.
* Clean any common areas in your room – bathrooms, hallways, study areas, etc.
* Sweep/vacuum the floor.

REFRIGERATOR/MICROWAVE UNIT

* Clean the entire unit inside and out.
* Defrost refrigerator, but make sure to keep the unit plugged in and turned on.

FURNITURE

* Return furniture to its original location.

TRASH

* Take all trash to the dumpster.

CABLE TV

* If you have subscribed to premium cable TV service, be sure to disconnect the service and make final billing arrangements.

ROOM INSPECTION

* Schedule an inspection time with Housing and Food Services.
* Staff will inspect the room and make note of any damages.

WHEN YOU ARE READY TO CHECK OUT:

* Turn off all lights.
* Lock and secure your door.
* Return room key to the Housing and Food Services office. It is important that you do not place your key in U.S. mail, leave it with a friend, or leave it in your room. Room keys not returned to the Housing and Food Services office within 24 hours after student's last final exam will be replaced. A new core will be installed and charges will be assessed against the student account. Please check with Housing and Food Services or your RA if you have any questions regarding check out.

#### HOW THE CAMPUS MEAL PLAN WORKS

Each time you visit a dining commons, campus restaurant, or on-campus convenience store, you can use your id+ card to purchase a meal, snack, or beverage.

FIVE STEPS

1. Choose a level that is best for you.
2. Go to [eLiving](http://www.eliving.psu.edu/) to purchase a campus meal plan. It will be charged to your student bursar account.
3. Funds will be put into your account.
4. Use your id+ card to make on-campus purchases.
5. After making a purchase, funds will be deducted from your account and the remaining balance will be displayed on the register's screen.

# 2017-2018 MEAL PLAN RATES

|  |  |  |  |
| --- | --- | --- | --- |
| Level | Dining Dollars | Base Cost | Total Cost |
| 1 | $615 | $1,370 | $1,985 |
| 2 | $935 | $1,370 | $2,305 |
| 3 | $1,180 | $1,370 | $2,550 |
|  | | | |

# How Many Meals Each Meal Plan Level Feeds

* Level 1 will provide about 7 to 10 meals per week and is comparable to the previous Level 1
* Level 2 will provide 12 to 14 meals per week and is comparable to the previous Level 3
* Level 3 covers 16 to 19 meals per week and is comparable to the previous Level 6.

# DINING COMMONS MEAL PRICES

|  |  |  |  |
| --- | --- | --- | --- |
| Plan | Breakfast | Lunch | Dinner |
| Campus Meal Plan | $2.20 | $3.95 | $5.20 |
| Campus Meal Plan Guest | $4.20 | $7.70 | $10.00 |
| Lion Cash+ | $6.80 | $10.45 | $13.25 |
| Cash | $7.50 | $11.75 | $14.50 |
| Children 6-10 years | $3.00 | $5.00 | $6.50 |
| Children under 6 | free | free | free |
|  | | | |

# SAVINGS WITH THE MEAL PLAN

With the Campus Meal Plan, you will receive major savings in the dining commons.

* Enjoy a 65 percent discount at the all-you-care-to-eat dining commons.
* Your guests can also enjoy on-campus dining with a 35 percent discount in the all-you-care-to-eat dining commons when you use your id+ card.
* Retail locations offer a 10 percent discount to Campus Meal Plan members on prepared items.

# Leftover Meal Plan Funds

* If you purchase the meal plan within the first two weeks of spring semester, your leftover dining dollars from fall semester will carry over.
* You may purchase a different level for spring.
* Dining dollars left over from spring semester do not carry over and are forfeited.
* Your summer semester dining dollars carry over to the fall semester if you've purchased the plan for the fall.
* Levels can be changed at anytime until seven days before the last day of final exams.

# **Academic and Career Planning Center (ACPC)**

Having a solid academic plan and preparing yourself for the internship and job search is vital to succeed in a competitive world. The Academic and Career Planning Center (ACPC) also assists employers seeking to recruit Penn State Behrend's talented and motivated students and graduates.

[**Contact ACPC**](http://behrend.psu.edu/Academics/academic-services/acpc/contact-us) to schedule an appointment for any of our services. Call us at 814-898-6164 or stop by Reed 125. **Follow us** on Twitter [@BehrendACPC](https://twitter.com/BehrendACPC) to keep updated on academic deadlines and job/internship opportunities.

# Academic Tools

Academic Planning

Learn how to explore your academic choices, make informed decisions, and manage a total Penn State experience.

* [Penn State Division of Undergraduate Studies](https://dus.psu.edu/enrollment-dus): See the value of being a DUS student
* [MajorQuest](http://dus.psu.edu/majorquest/): Explore majors by interest area
* [MinorQuest](http://dus.psu.edu/minorquest/): Explore minors by interest area
* [University Bulletin](http://bulletins.psu.edu/bulletins/bluebook/): Search programs by campus and college
* [Certificate Programs](http://bulletins.psu.edu/undergrad/programs/certificates/): Search an alphabetical listing of certificates
* [What Can I Do With This Major](http://whatcanidowiththismajor.com/major/): Connect majors to career possibilities (If your specific major is not listed, choose a similar major)

Courses and Scheduling

* [Understanding a Penn State Degree](https://orientation.psu.edu/sites/default/files/documents/degreenso.swf)
* [Understanding General Education](https://handbook.psu.edu/content/general-education#requirements)
* [College Information Chart](http://advising.psu.edu/college-information-chart): Examine links to majors, colleges, contacts, recommended academic plans and entrance to major requirements
* [Class Search](https://public.lionpath.psu.edu/psp/CSPRD/EMPLOYEE/HRMS/h/?tab=DEFAULT): Search class availability by campus and semester
* [Course Catalog](https://public.lionpath.psu.edu/): Find an alphabetical list of all courses available at Penn State, with course descriptions, prerequisites and semester(s) offered
* [LionPATH Help](http://lionpathsupport.psu.edu/help/undergraduateparent/): Use links, videos and instruction guides to help utilize LionPATH resources
* [Behrend College Registrar](http://behrend.psu.edu/Academics/academic-services/college-registrar): Locate information about courses and scheduling, academic requests, semester deadlines and LionPATH
* [Transfer Credit Evaluation Tool:](https://admissions.psu.edu/my_admissions/tas/) Investigate Penn State course equivalents

# **Reed Union Building Information Desk**

Whether you want to buy tickets to an on-campus event or simply just need directions, the Reed Union Building Information Desk (RUB Desk) provides a variety of information and services to both students and visitors of Penn State Behrend.

The RUB Desk also provides financial guidance for clubs and organizations and all programs funded through the [Student Activity Fee](http://behrend.psu.edu/student-life/student-services/saf) and Student Government Association.