

Community College *of* Philadelphia

MATHEMATICS DEPARTMENT

W2 - 7 • 1700 Spring Garden Street • Philadelphia, PA 19130 • 215 - 751 - 8430 • faculty.ccp.edu/dept/math

Welcome

Thank you for accepting our invitation to be interviewed. We hope this booklet provides all necessary information needed to enable a pleasant and productive interview. For your convenience this document is also available online at <http://faculty.ccp.edu/dept/math/hiring/>. Please feel free to contact us if you have questions. Our contact information can be found on the last page of this document. We look forward to meeting you.

Interview Booklet

2012 Developmental Mathematics Hiring Committee

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Before the Interview

You should have received by email and postal mail this document and a letter detailing your scheduled interview time and date. If you are missing any of these documents, please contact the person handling interview scheduling below. Please also contact this person if a pressing need to make changes to your interview arises. Division of Math, Science & Health Careers Office Supervisor Yvonne Foster is responsible for scheduling issues and can be reached at 215-751-8438 or at yfoster@ccp.edu.

Getting to the Interview

Each candidate is responsible for making his or her own arrangements to get to the interview. The interview will be held in the West Building on the College's Main Campus located at 1700 Spring Garden Street, Philadelphia PA 19130, found at the intersections of 17th and Spring Garden Streets, which is about six blocks north of the very center of the city. The campus is within walking distance of public transportation routes including the Broad Street Subway (Broad and Spring Garden Streets), several bus routes including Routes 2 and 43 (16th or 17th and Spring Garden Streets) and Penn Center Suburban Station (16th St. and JFK Blvd.) More information can be found at the SEPTA¹ website, <http://www.septa.org>. A map of center city transit can be found at <http://www.septa.org/maps/region/pdf/ccp.pdf>.

There is metered parking on the nearby streets which may be quite available on Friday and Saturday. Since the College campus is closed on these days, we expect there to be little trouble finding convenient parking. There are also several pay lots nearby. Unfortunately the College parking facilities will be closed.

Even though the interview will be conducted in the West building, you will need to enter the campus buildings through the main entrance in the Mint Building on Spring Garden Street not far from 17th Street. The interview will be held in room **W2-08**. Please see the map on page 3 for directions to the room.

There is major construction being done to portions of the West Building and the grounds between it and the Gymnasium but this should not interfere with getting to the interview room. When possible, a faculty member will greet you in the Mint Building lobby and accompany you to the interview room. If someone is unavailable to greet you and you are having difficulty locating the room, please ask one of the security officers at the security desk found at the front entrance of the Mint Building.

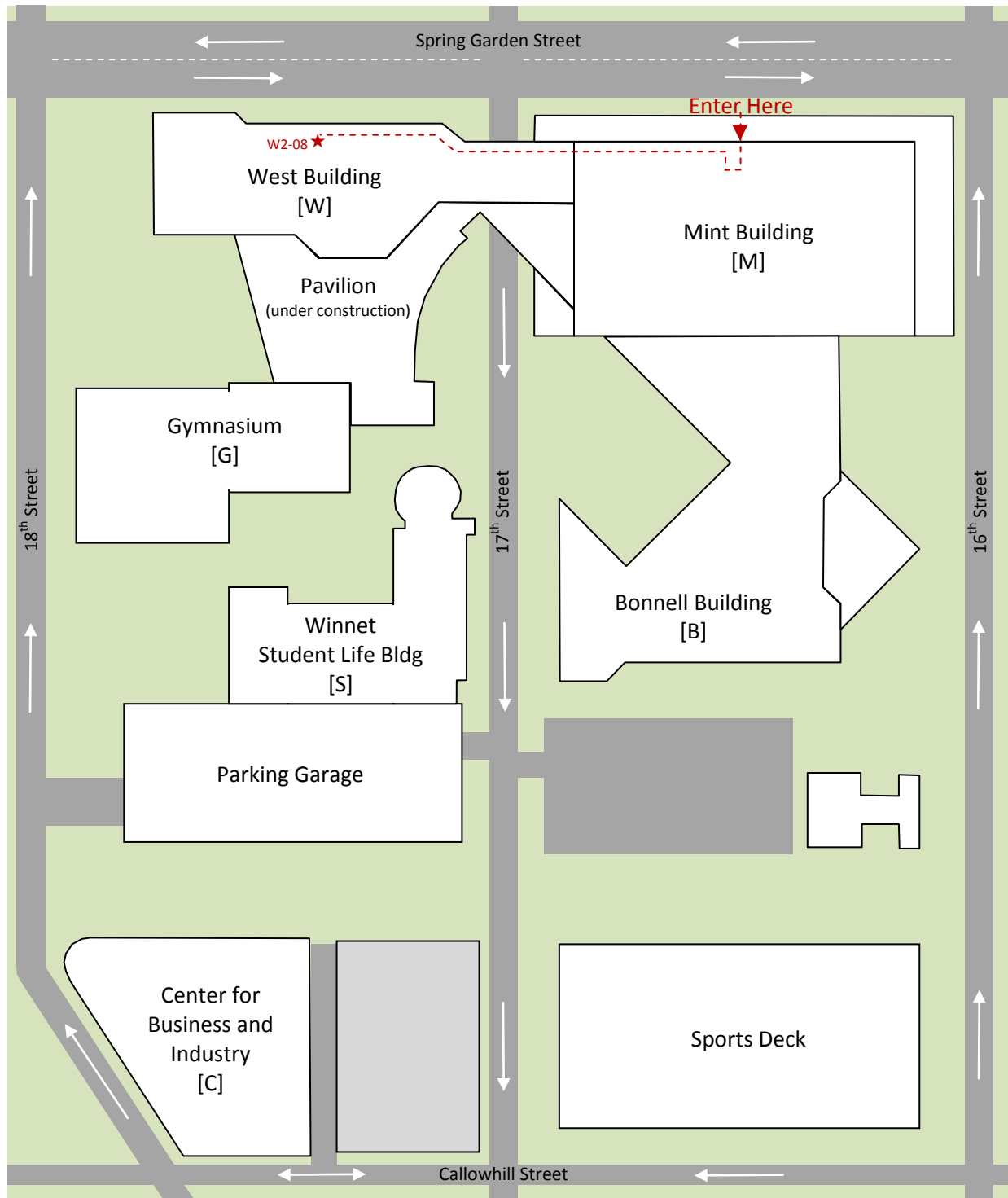
For only those candidates who will be traveling a significant distance:

Some funds may be available to offset travel expenses. Receipts are necessary and questions concerning reimbursement requisites and procedures can be directed to Technical Specialist Margaret Starr in the Division of Math, Science & Health Careers. She can be reached at 215-751-8431 or mstarr@ccp.edu.

Candidates interested in scheduling an interview with the College administration during the same trip will need to contact the interview scheduler (see above). Interviews with the administration, when possible, will most likely need to be during a weekday. The Developmental Mathematics Hiring Committee is not involved in this interview and is not responsible for any facets of its availability, arrangement, execution or alteration.

¹ SEPTA is the Southeastern Pennsylvania Transportation Authority, provider of public transportation in the city and environs.

Community College of Philadelphia Main Campus Map



In the event that someone is unavailable to greet you:

Directions to Room W2-08: Enter the Mint Building from Spring Garden Street into the main lobby. Go up the main marble stairs and turn right at the first landing. Proceed up to the second landing and turn left. Follow the hallway to the end and go through the double doors. Continue through the next door, which should be labeled "West Building." Bear right and follow the hallway along the windows. Pass the study corals and room W2-08 should be several doors down on your left.

Developmental Mathematics at CCP

CCP's Mathematics Department currently offers three courses that are considered developmental. These are Arithmetic, Elementary Algebra and Intermediate Algebra. Arithmetic is the lowest level mathematics course offered through the College. When admitted to the College, students, according to assessment scores, may either be placed into one of these courses, making them a developmental mathematics student, or into a higher level mathematics course. The descriptions of each of these courses as they appear in the most recent version of the College Catalog² are:

MATH 016 Arithmetic

This arithmetic course covers operations on natural numbers, integers, rational numbers (fractions), decimals and percents. Multi-step problems utilizing the correct order of arithmetic operations will be stressed. Correct mathematical format will be stressed. A Departmental Exam is required with no calculators allowed. Credit will not apply toward graduation.

MATH 017 Elementary Algebra

This course covers algebraic expressions; equivalent algebraic expressions; operations on algebraic expressions; linear equations and inequalities in one variable; and factoring. A Departmental Exam is required with no calculators allowed. Credit will not apply toward graduation. Prerequisites: "Pass" grade in MATH 016 or satisfactory score on mathematics placement test.

MATH 118 Intermediate Algebra

Real numbers, polynomials, rational expressions, algebraic expressions, linear equations and inequalities in one variable, absolute value equations and inequalities, linear equations in two variables, graphs of lines, systems of linear equations in two variables, quadratic equations in one variable, problem solving. A Departmental Exam is required with no calculators allowed. Prerequisite: MATH 017.

The contractual class-size maxima for these courses are 20 students per section for Maths 016 and 017, and 36 students per section for Math 118.

Most higher level mathematics courses at CCP require Math 118 Intermediate Algebra (or higher) as a prerequisite and most College programs require graduating students to successfully complete at least one mathematics course of Math 118 level or higher. Owing to this, for those that do not place into higher courses, completing the Math 016-Math 017-Math 118 sequence has been identified as a critical component of academic success at CCP.

The Mathematics Department currently consists of more than 100 faculty, about 30 of whom are full time. Approximately 10,000 students enroll in developmental mathematics courses across roughly 400 sections per year at CCP. Developmental mathematics courses account for 75-80% of all mathematics course sections in any given semester. Consequently, developmental mathematics plays a crucial role in the activity of the department and the College.

Full-time Developmental Mathematics Faculty

Finalists who are hired as developmental mathematics faculty will be full members of the Mathematics Department, enjoying full voting privileges on all matters before the department as well as reporting to and receiving course assignments from the head of the Mathematics Department. The base course load for full-time faculty is four sections in each of the fall and spring semesters for a total of 24 credit hours for those semesters.

According to current departmental policy, developmental mathematics faculty with a Masters (or higher) in Mathematics are eligible to be assigned mathematics courses outside the developmental program. Regardless of education, developmental mathematics faculty are expected to have course loads predominantly in the developmental courses and help lead the department's efforts in making the developmental mathematics program more successful.

² Source: http://www.ccp.edu/site/academic/courses/math_crs.php. Descriptions of *all* math courses are available here.

Interview Preliminaries

Candidates should familiarize themselves with the College's mission statement. The complete text can be found at <http://www.ccp.edu/site/about/mission.php>. An excerpt is provided here:

Community College of Philadelphia is an open-admission, associate-degree-granting institution which provides access to higher education for all who may benefit. Its programs of study in the liberal arts and sciences, career technologies, and basic academic skills provide a coherent foundation for college transfer, employment, and life-long learning. The College serves Philadelphia by preparing its students to be informed and concerned citizens, active participants in the cultural life of the city, and enabled to meet the changing needs of business, industry and the professions. To help address broad economic, cultural and political concerns in the city and beyond, the College draws together students from a wide range of ages and backgrounds and seeks to provide the programs and support they need to achieve their goals.

More details about the College can be found at <http://www.ccp.edu/site/about/>.

The interview room will be a typical classroom with a chalkboard and, if needed, a projection screen. If you intend to use any audio-visual devices such as overhead projectors, computer projectors and the like, please check with the interview scheduler so these devices can be made available if possible. If you intend to circulate handouts, please make sure that you print and bring enough for everyone (there will be at most seven faculty interviewing you). If you have sample syllabi or lesson plans that you would like the Committee to see, please provide copies for everyone.

You will be asked to sign a printed copy of your application at the time of the interview. The committee asks that you prepare a written summary (see p. 7) and leave it with committee. Again, if you have any questions about the interview, our contact information is on the back page of this booklet.

Interview Outline

The interview is scheduled to last 75 minutes. It will be broken up into three parts:

Part 1 — Interview Questions (30 minutes)

The Committee will ask a series of eight questions (see next page) and the candidate will have 30 minutes total to answer them. This means that you have roughly 4 minutes to answer each one. If less time is spent on one, the remaining time can be used on another. There may be follow-up questions based on your responses.

Someone on the Committee will be keeping time and will mention when time is running low. You may sit behind or in front of the instructor's desk or stand, whichever you prefer, for this part of the interview. A copy of the eight questions will be provided in the case you did not bring them.

Part 2 — Demonstrations (30 minutes)

The candidate will be expected to prepare and present two 15-minute demonstrations (see p. 7). The first demonstration topic is fixed, but the second one is to be selected at random at the time of the interview from a list of five topics by a method explained at the time of the interview. The candidate is strongly encouraged to prepare for all six topics.

During the demonstrations, members of the Committee may ask questions as if they were students where some may be less proficient in the subject, others more. The Committee may ask the candidate to skip forward or back in the presentation (perhaps in the interest of time to get to an important point) or to elaborate more on a particular point, stepping out of the role-playing scenario for a moment. It may be the case that the candidate does not get to complete the prepared demonstration before the 15 minutes are up. This is okay and will not reflect negatively on the candidate.

Part 3 — Candidate Questions (15 minutes)

The candidate is permitted 15 minutes to ask questions of the Committee. (See p. 8).

Interview Questions

There are eight main interview questions. The Committee will ask each of these in the order they appear below. Subsequent follow-up questions may be asked. Since there are 30 minutes allotted to the question portion of the interview, you will have 4 minutes each on average to answer each of these.

1. Share with us your experiences in developmental mathematics.

2. Community College of Philadelphia's mission states that it seeks to provide the support needed for students to achieve their goals. CCP's developmental mathematics student population is very diverse in many ways, including socio-economic and educational backgrounds as well as scholastic preparedness. Describe the pedagogies you would recommend for a developmental mathematics program, especially one that serves such a diverse audience. What steps can be taken to implement such a program?

3. How do you define a successful developmental mathematics program? How would one measure whether its approaches are successful, and how would it be designed to monitor and adjust itself if it does not meet expectations?

4. Describe the role that alternate course delivery methods, collaborative learning, uniform examinations and technology may play in a successful developmental mathematics program.

5. Share any practices or concepts that in your opinion are best for developmental mathematics instructors. What is your vision of an ideal community of teachers of developmental mathematics for sharing and developing new and better approaches to this subject?

6. What resources or research can you recommend the College draw upon or explore in order to enhance a successful developmental mathematics program?

7. Comment on where (if at all) the concept of *mapping* arises in basic and intermediate algebra. Start by stating what your understanding of a "mapping" is.

8. Discuss your approach to explaining the geometric nature of sets of linear equations in two unknowns. What can be said about solution sets of other equations in two unknowns?

Demonstration Topics

There are to be two demonstrations, each intended to take 15 minutes. Please prepare a lesson on each topic. Although the topic in question might require more than 15 minutes to present in a real class, you will be asked to present what you can. The Committee may ask to you to move forward or skip material as time permits.

For some topics, some prior material and concepts you may assume your audience understands may be indicated. The first topic is fixed, but the second topic will be selected at random during the interview from the following list of topics as explained earlier. You should present the lesson as if the Committee were a group of students in a class. They may ask questions as if they were students.

First Demonstration

Arithmetic of Fractions

What are fractions? How does one do arithmetic with fractions? *You may assume* students know integer arithmetic.

Second Demonstration

The second demonstration topic will be randomly selected from the following five topics:

1. Exponential Notation with Integer Exponents

This should include cases where the exponent is zero or a negative number.

2. Solving Word Problems Leading to Linear Equations

These should focus on word problems that lead to a system of two linear equations in two variables. *You may assume* students know how to solve linear equations and basic systems.

3. Factoring Quadratic Polynomials

This should include cases where the lead coefficient is either 1 or not 1, as well as those in 1 and 2 variables. You may assume students are familiar with factoring out greatest common factors and factoring by grouping.

4. Solving Inequalities in One Variable

This should focus on solving inequalities which are non-linear: those involving absolute value, polynomials or rational expressions, for example.

5. Solving Quadratic Equations

You should *not* assume that students are familiar with square roots. *You may assume* students know the distributive property of multiplication over addition, but not necessarily realize that $(x + 3)(x + 4) = x^2 + 7x + 12$ for example. The fact that solving quadratic equations leads to “new” numbers should be addressed.

Written Summary

Please write a brief summary of your coursework in mathematics, highlighting work in areas of special interest to you. This document is to be submitted to the Hiring Committee at the time of the interview and will be kept for consideration as part of your application.

Frequently Asked Questions

Q. What happens next in the hiring process? How long will it take before I'm notified of a decision?

A. Once all interviews are completed, the Committee will deliberate and make recommendations to the department head for review. He in turn sends recommendations to the Dean of Math, Science & Health Careers. The College administration makes decisions concerning follow-up interviews and whether to extend an offer. Despite efforts to make this happen in a timely fashion, delays sometime occur. Once the Hiring Committee submits its recommendations, it is not involved in the remainder of the process and cannot give a clear prediction of the length of time until a final decision is made. We hope that it is timely.

Q. What salary range should one expect?

A. The College and the Faculty and Staff Federation in a previous contract agreed upon a salary schedule for full time faculty salaries. Specific salaries and rank are calculated based on a number of factors including degrees attained, number of years of full-time teaching experience, years of employment as a Graduate Teaching Assistant and years of other full-time related work experience. All experience must be documented. The specific calculation is done for the finalist near the end of the hiring process; therefore we cannot give you a specific figure at this time. For the 2010-2011 academic year, the minimum for an Academic Year Instructor, with a Masters degree and no relevant experience was \$44,800 and the minimum for an Assistant Professor with a Masters degree was \$46,000. The 2012-2013 figures have not yet been finalized.

Q. What benefits are offered?

A. The Faculty and Staff Federation of Community College of Philadelphia is the union representing all faculty and staff at the College. Benefits extended to full-time faculty are detailed in the latest contract between it and the College. We direct you to the Full-time Faculty contract on the Federation's website: http://www.aft2026.org/FTFcontract_2006-11_withinindex.pdf.

Contact Information

Interview Scheduler

Yvonne Foster, Office Supervisor,
Division of Math, Science & Health Careers

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Mathematics Department Head

Brenton Webber, Assistant Professor – Mathematics

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Developmental Mathematics Hiring Committee

Reid Huntsinger, Assistant Professor – Mathematics (Chair)
Atish Bagchi, Associate Professor – Mathematics
Wimayra Luy, Assistant Professor – Mathematics
Lilla Hudoba, Assistant Professor – Learning Lab Mathematics Specialist
Sandy Harrill, Director of Developmental Education
Joo Park, Representative, President's Diversity Council (Ex Officio)

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Thank You

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The Path to Possibilities™
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