**Predominantly African American AP calculus class is exceptionally rare, marked by camaraderie and success**

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By **Betsy Hammond, The Oregonian**The Oregonian

**View full size**Brent Wojahn/ The OregonianTeacher Scott Reis shows his Advanced Placement calculus students steps they can take to solve a problem. Two-thirds of the students in the class are black, which is virtually unheard of in the most advanced high school math classes in Oregon.

The mood is cheerful as seniors in this small calculus class at **De La Salle North Catholic High** begin a warm-up exercise. They're seeking **the integral of x divided by x-squared minus four.**   
  
They work fast, cranking out steps that rely on **u-substitution** and the anti-differentiation rule. Clearly, they find this a cinch.   
  
Teacher Scott Reis asks for a volunteer to show the answer on the board, and Alex Faison-Donahoe jumps up: "Mr. Reis, let me do it!"   
  
The eagerness and camaraderie in the room at the private North Portland school are not what you might expect in a tough **Advanced Placement calculus class**, but they're genuine.   
  
Even more unusual: Two-thirds of the students, including Faison-Donahoe, are African American; only one of the 15 students is white.

**View full size**Brent Wojahn/ The OregonianSeniors James Jones (left) and Prudence Eca listen during their AP calculus class at De La Salle North Catholic High.

That's a sharp contrast with other advanced high school math classes in Oregon. Among the state's 42 public schools that enroll at least 25 African Americans and offer calculus, just five had even a single black student in calculus, according to recently released **federal civil rights data from 2009-10.** No school had more than five black students in the course.   
  
Schools that enrolled substantial numbers of African Americans but none in calculus included **Beaverton's Westview High**, **Portland's Grant** and **Madison** high schools, and **David Douglas High in outer Southeast Portland**, the federal data show.   
  
Only Roosevelt High, also in North Portland, has come close to matching private De La Salle's track record. It has 31 students in AP calculus this year, including 10 African Americans and five Latinos.   
  
In the De La Salle class, race isn't discussed. Vertical tangents, anti-derivatives, the power rule and natural logarithms are.

**View full size**Brent Wojahn/ The OregonianKevin Jones, a self-described "math guy," solves to find an integral.

But student Kevin Jones, who is African American and a self-described "math guy," says "there's something wrong" when so few Oregon schools enroll African Americans in calculus.   
  
AP calculus, while "it's kind of rigorous and takes a lot of time to study ... is a lot of fun," Jones says. "I wonder, do those schools give black people a chance?"   
  
The class is lively from start to finish. Bolstered by out-of-class study groups and extra support from Reis when needed, the students are clearly mastering the subject.

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It helps that Reis created buzz phrases, songs, color-coded notecards and other catchy ways to help students remember the rules, shortcuts and perils. "Separate the xs and the ys before taking the integral," he says. Also, "you must, must, must use **the product rule**."   
  
He is relentlessly encouraging. "I know this isn't easy the first time you see it, but it will get easier," he tells them one day. "You guys are getting really good at slope fields in just two days," he says another.   
  
De La Salle, **a low-cost Catholic high school that enrolls promising students from low-income backgrounds**, didn't end up with a predominantly black calculus class easily or by design.   
  
Students admitted to De La Salle as freshmen arrive, on average, a year and a half behind academically. They come from schools including Portsmouth, Ockley Green and H.B. Lee middle schools -- high-poverty schools with low test scores.   
  
But they also are hungry -- to learn, to work hard, to get to college. "This is a tough place with a high bar," says **Principal Tim Joy**. "The primary thing we look for (in applicants) is desire."

**View full size**Brent Wojahn/ The OregonianSenior Tori Ward says math is not her strongest subject, but mastering calculus should help her in her dream career in digital animation. Mr. Reis' willingness to spend lots of time outside class explaining and reinforcing concepts has been key, she says.

These days, most middle-class students take algebra in eighth grade. Only five of the De La Salle calculus students took geometry together as freshmen, however. Most had to take algebra freshman year. With the school's encouragement, they doubled up on math in their sophomore or junior year to get to calculus in their senior year.   
  
**Motivating one another**   
  
Overall, 78 percent of De La Salle students are teens of color, with African Americans the largest group, at about 40 percent.   
  
To build the AP calculus class to 15 students, Reis recruited teens who showed the strongest math skills and the best work ethic -- a group that turned out to be mostly black.   
  
Faison-Donahoe initially wanted to take an easier class senior year, but a vice principal counseled that calculus would help him get into college.   
  
"The class makes sense," the senior says. "It's at a fast pace, but (many concepts) are easy."   
  
To an unusual degree, the students have become tutors and cheerleaders for one another as they vroom toward **the important May 9 AP exam**. If they score at least 3 on a 5-point scale, they could get college credit.   
  
Many of them show up for class early, during the lunch period that precedes it. Without regard to race or gender, they spontaneously jump in to help any classmate who struggled with a problem in the nightly study packet.   
  
"We kind of motivate each other," Faison-Donohoe says. "When I don't do my homework, it's not just the teacher that scolds you. It's my friends, too."

**Students of color predominate in unusual AP calculus class**Teacher Scott Reis didn't go looking to enroll African American students in particular at his diverse low-cost Catholic school. He recruited students with the strongest math skills and the best work ethic, who turned out to be disproportionately black. Students are working hard to prepare for the AP exam May 9. Students in the class have created an ethos of mutual support that is helping the whole class do better.**Watch video**

Reis, who earned his undergraduate math degree from the University of Portland and his teaching degree from Notre Dame, is white and nerdy -- and does not pretend to be otherwise. He has made the class about as fun and accessible as calculus can be, without straining to be hip.   
  
Reis, who is 37 but looks fresh out of college, arrives early, stays late and meticulously plans each lesson to give his students maximum chances of success on the AP exam.   
  
"He will literally stay hours after school to help you understand one concept," student Shawn Yoakum says.   
  
**A culture of success**   
  
**Lisa Delpit**, author of the new book **"'Multiplication is for White People'; Raising Expectations for Other People's Children,"** says widespread underestimation of black students' abilities to succeed at rigorous academics is societal and begins before African American children start school.   
  
She says Reis and De La Salle have overcome the problem in exactly the right way -- by assembling a big group of black students, not just a handful, to take a demanding class, then helping the students form a sense of community.   
  
"In African American culture, relationships are extremely important," Delpit says. "It's extremely important for all kids, but particularly for African American kids, that they feel part of a group, feel connected. Put them together and tell them, 'Look, we're going to give you some hard work because we have identified you as being really smart in math,' then help them as a group address it. Teach them to work collectively and collaboratively."

**View full size**Brent Wojahn/ The OregonianTeacher Scott Reis helps Prudence Ecu during class. Students credit Reis for making things clear during class and being willing to help them outside class as much as they need.

De La Salle has followed her prescription, Delpit says.   
  
"It's all the teacher. I can tell you that without being there. ... There is an African proverb, 'I am because we are.' He has created a culture in that classroom that reflects that."   
  
Reis hopes many of his students will earn 3s on the exam. Even if they don't, the tough, fast-paced class sets them up for success in college, he says.   
  
**Zarinah Mustafa**, another black student, agrees. She says the fact that students all participate in class, readily chiming in to talk about math reasoning, comes naturally and by necessity.   
  
"We learn to catch on quickly. If you don't talk in class and try to come to an understanding and make sure your understanding is correct, you're not going to get it and remember it. I'm not saying it's easy. It's a lot of work. I don't let Mr. Reis leave after school until I understand."   
  
-- **Betsy Hammond**

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