

## Biomedical Technology: The Right Stuff

Meet **Jan Jachimowicz**



"If a person has a desire to help others, biomedical technology is a wonderful industry. Whether you are introverted or extroverted, there's a place for you. From day one, I knew this [biomedical technology] was the right thing to do."

**JAN JACHIMOWICZ** is an instructor in the biomedical certificate program (see pages 12 to 15) at Anoka-Ramsey Community College who enjoys teaching classes to prepare students for a career in this fast-growing profession. And he is well-qualified to teach too, with more than 20 years experience in the medical industry, including work in start-up and early-stage medical device ventures. Jachimowicz also holds a master's in business administration in Healthcare Administration from the University of St. Thomas.

As well as providing a balanced overview of the industry, Jachimowicz's introductory class in the certificate program has students preparing individual presentations on current medical devices as well as group presentations. Partnering students with a lot of workplace experience with those with virtually none, Jachimowicz has students develop a biomedical product from the "napkin stage" (drawings or jottings on scrap paper, where most products begin) through the Federal Drug Administration process and all the way to packaging and marketing.

Even with all this emphasis on business, it's not the primary point of a biomedical career, according to Jachimowicz.

**FOR PEOPLE INTERESTED IN A CAREER in the fast-growing field of biomedical technology**, Anoka-Ramsey Community College offers both certificate and degree programs. Biomedical programs have been revised this fall to reflect industry changes. A new 17-credit Biomedical Core certificate program has been added. Existing programs have been revised to a 62-credit Biomedical associate in science degree; 30-31 credit Biomedical Technician certificate; and a 22 credit Clinical Research Professional certificate.

The Biomedical Technologist degree program provides a solid foundation in science and technology as well as proficiency in problem-solving, critical analysis, oral and written communication, and interpersonal skills. Hands-on learning is a key component, including a field experience with a local biomedical company.

Graduates of the degree program are prepared for entry-level positions in biomedical companies or for transfer to four-year colleges, including St. Cloud State University, Minnesota State University Moorhead, and Minnesota State University Mankato.

To apply for admission to one of the Biomedical programs, submit the Application for Biomedical Programs to the Records and Registration Office. Applications are available in Counseling and Advising Services or the Records and Registration Offices on either campus.

All core courses are offered at the Coon Rapids Campus. Most core courses are also offered at Inver Hills and Normandale Community Colleges.

College-level competence in English, writing, mathematics and computer competency should be acquired before entering the biomedical programs. (See Adult Basic Education information on page 3.)

For a complete description of the program, visit [www.anokaramsey.edu/resources/pdf/degrees/BMED\\_AS.pdf](http://www.anokaramsey.edu/resources/pdf/degrees/BMED_AS.pdf).

**Looking for a faster route to a biomedical career?**

**Check out non-credit certificate programs on page 11 and professional development courses on page 14.**

### Biomedical Technologist Degree Courses, Spring 2008

**BMED 1100 - 90 Introduction to Biomedical Devices and Industry**  
W, 6:30 - 8:30 p.m., ID: 000327, Cr. 2, Instructor Richard Kravik, Coon Rapids Campus  
This course gives the student a general understanding of the biomedical device industry in terms of its size and scope, current trends, and the wide range of products involved with emphasis on biomedical companies in Minnesota. The course will also give the student an overview of the development of a medical device from initial conception through development, testing, validation, manufacture, clinical trials and final approval by regulatory agencies. Two lecture hours per week plus two Saturday field trips. BMED 1100 is strongly recommended as a first class for those with no previous biomedical device industry experience.

**BMED 2100 - 90 Design and Manufacturing in the Medical Device Industry**  
M, 6:30 - 9:30 p.m., ID: 000328, Cr. 3, Instructor Bryon Jorgenson, Coon Rapids Campus  
This course provides an introduction to the design and manufacturing of medical devices with special focus on the unique design manufacturing challenges that are necessary to achieve World Class Manufacturing (WCM) excellence. The course describes the fundamental systems used in the design, development and manufacturing of medical devices and how these relate to industry regulations. Specific topics include material and process selection considerations, clean rooms, sterilization processes, clinical testing, lot trace ability, and manufacturing controls. Three lecture hours per week. BMED 1100 is strongly recommended as a first class for those with no previous biomedical device industry experience.

**BMED 2200 - 90 Introduction to Medical Device Regulations/Ethics**  
Th, 6:30 - 9:30 p.m., ID: 000329, Cr. 3, Instructor David Mueller, Coon Rapids Campus  
This course introduces students to certification standards and the agencies involved in the regulatory processes specific to the medical industry. Topics include FDA regulations, international regulations, quality certification processes, and related ethical considerations. Three lecture hours per week. BMED 1100 is strongly recommended as a first class for those with no previous biomedical device industry experience.

**BMED 2297 - 90 Field Experience and Seminar**  
W, 6 - 8 p.m., ID: 000330, Cr. 4, Instructor Thomas Sullivan, Coon Rapids Campus  
Prerequisite: Permission of the program director. Provides a supervised practical, industry-based learning experience in a setting consistent with the student's biomedical career goals in which the student develops professional skills through work experience.

**BMED 2400 - 90 Introduction to Clinical Research**  
T, 6 - 9 p.m., ID: 000331, Cr. 3, Instructor Frank Freedman, Coon Rapids Campus  
Prerequisite: MATH 1110, or equivalent, or concurrent enrollment. This course will provide the foundation for understanding the research process and its application to clinical trials in the biomedical industry. Topics include the role of the clinical research professional, the process of designing, implementing, managing and reporting a clinical study, and ethical issues related to clinical research. Three lecture hours per week.

### College On Your Corner

#### Centennial High School (CNHS)

4881 101st Lane NE, Circle Pines, Minn., 763-792-5000  
• 000804 PSYC 2215 Child and Adolescent Psychology, Th, 6:30 to 9:10 p.m.  
• 000837 SOC 1111 General Sociology, T, 6:30 to 9:10 p.m.

#### Columbia Heights High School (CHHS)

1400 49th Ave NE, Columbia Heights, Minn., 763-528-4600  
• 000230 ART 1141 Drawing I, M, 6:30 to 9:10 p.m.  
• 000559 HPER 1115 Stress Management, W, 6:30 to 9:10 p.m.  
• 000674 MUSC 1100 Music Appreciation, T, 6:30 to 9:10 p.m.  
• 000761 PHIL 1110 Ethics, Th, 6:30 to 9:10 p.m.  
• 000798 PSYC 1115 Stress Management, W, 6:30 to 9:10 p.m.

#### Elk River Area High School (ERHS)

900 School St., Elk River, Minn., 763-241-3520  
• 000545 HPER 1102 Drugs, Alcohol and Tobacco, Th, 6:30 to 9:10 p.m.  
• 000615 MATH 0100 Pre-Algebra, M, 6:30 to 9:10 p.m.  
• 000635 MATH 0210 Mathematics II, M/Th, 6:30 to 8:45 p.m.  
• 000751 NATS 1051 Energy Issues and Solutions, W, 6:30 to 8:10 p.m.  
• 000753 PHIL 1101 Intro to Philosophy, T, 6:30 to 9:10 p.m.

#### Fridley Middle School (FRMS)

6100 West Moore Lake Dr., Fridley, Minn., 763-502-5400  
• 000244 ART 2241 Painting, Th, 6:30 to 9:10 p.m.  
• 000517 ENGL 2204 Short Stories, T, 6:30 to 9:10 p.m.  
• 000693 HIST 2240 America and the Vietnam Era, Th, 6:30 to 9:10 p.m.  
• 000636 MATH 0210 Mathematics II, T/Th, 6:30 to 8:45 p.m.  
• 000862 SPCH 1110 Introduction to Speech Communication, M, 6:30 to 9:10 p.m.

#### Monticello High School (MCHS)

5225 School Blvd., Monticello, Minn., 763-271-0350  
• 000213 ANTH 2201 Intro to Cultural Anthropology, Th, 6:30 to 9:10 p.m.  
• 000794 PSYC 1110 General Psychology, T, 6:30 to 9:50 p.m.

#### National Sports Center

1700 105th Ave. NE, Blaine, Minn., 763-785-5600  
• 001137 HPER 1156 Golf, T/Th, 11 a.m. to 12:50 p.m.  
• 001139 HPER 1160 Weight Training and Conditioning, M/W, 11 a.m. to 12:15 p.m.  
• 001140 HPER 1165 Fitness Walking, M/W, 9 to 10:15 a.m.

#### North Branch Main Street School

6644 Main Street, North Branch, Minn., 651-674-1071  
• 000003 ART 1100 Art Appreciation, M, 6 to 8:40 p.m.  
• 000093, HPER 1102 Drugs, Alcohol and Tobacco, T, 6 to 8:40 p.m.  
• 000152 PHIL 1115 Comparative World Religions, W, 6 to 8:40 p.m.

### College and National Sports Center Partner for Community Wellness

Anoka-Ramsey Community College has just partnered with the National Sports Center in Blaine to bring three new fitness-focused classes to the community. (See *College on Your Corner* course listings at left.)

The fitness classes will be held during the day to offer northern metro residents and those employed in the area the opportunity to meet wellness goals at a convenient location in the world's largest sports center.

The National Sports Center, built by the State of Minnesota, is a 600-acre campus. Since opening its doors, the center has hosted over 22 million visitors. In 2005, 3.3 million people visited the campus, making it Minnesota's most visited sports facility — more than the Metrodome, Target Center or Xcel Energy Center.

The addition of daytime, fitness offerings to *College on Your Corner* extension course offerings, as well as the partnership with the center, exemplifies the college's goal to better serve the community.

For more information about extension classes offered by the college, call 763-433-1200.

### Spring/Summer Semester Dates

#### SPRING SEMESTER 2008

Monday, Jan. 14 through Friday, May 16

Nov. 9, 2007  
Open registration begins

Jan. 14  
First day of the term

Jan. 19-21  
Holiday - college closed

Feb. 12  
FAFSA Deadline

Feb. 29  
No classes

March 16-22  
Spring break - no classes

May 12-16  
Final exams

May 16  
Last day of term  
Commencement ceremony

#### SUMMER SEMESTER 2008

Monday, June 2 through Friday, Aug. 8

April 2  
Registration begins

June 2  
First day of the term

July 4  
Holiday - college closed

July 3-5  
No classes

Aug. 8  
Last day of term