

ASSOCIATE DEGREE OPTIONS & REQUIREMENTS

JCC offers four types of associate degrees. Each degree includes general education courses as well as specific program courses. Students should select an associate degree based on your plan of study or career goal.

ASSOCIATE IN ARTS (AA)

ASSOCIATE IN SCIENCE (AS)

Students intending to transfer to another college or university usually select one of these degree programs. Students choose from courses that prepare them for a variety of professions and academic disciplines. *Note: Students are not required to earn a degree prior to transferring but may transfer credits back to JCC to complete graduation requirements.*

ASSOCIATE IN APPLIED SCIENCE (AAS)

This degree prepares students for entry into a technical or skilled occupational career immediately following JCC.

ASSOCIATE IN GENERAL STUDIES (AGS)

This degree is for students who want to plan their own program of study not defined by a specific job or career. The degree's flexibility allows the creation of a unique learning experience, such as combining the student's JCC experience with other academic institutions or community organizations, to prepare for or create a specialized career option.

ASSOCIATE DEGREE

To earn an associate degree, students must meet these requirements:

1. A minimum cumulative grade point average of 2.0 overall. (Some programs have additional grade and course requirements. Follow the guide sheet for your program and meet with an academic advisor for complete information.) **Important: only courses with a 2.0 or better will transfer to most four-year colleges and universities.**
2. A minimum grade of 2.0 in each course that applies towards a degree.
3. Completion of specific courses in a degree.
4. A minimum of 60 credits.
5. A minimum of 12 credits earned at JCC, unless otherwise specified.
6. A completed Application for Graduation for an associate degree submitted by the deadline date to Registration and Records, located in the JCC Student Center, main campus, or to JCC centers. Students have five academic years to apply for graduation from the time they complete their last course at JCC. See Graduation and Commencement, page 17. Applications are available at all locations or on the JCC web site; official audits are processed by the Registrar's Office
7. Completion of the degree requirements from any catalog of entry issued during continuous enrollment. Students who are not continuously enrolled and have completed degree requirements must meet the requirements of the catalog in effect at the time of graduation application. Students re-entering who have not completed degree requirements must follow catalog in effect at time of their re-entry date.

8. Coursework completed within a reasonable time period. This may require repeating certain essential courses, even though a passing grade was previously earned. An essential course involves material that affects skill development and successful performance and/or contains content likely to change significantly over time, as determined by appropriate academic departments.
9. A minimum of 12 additional credits beyond those credits completed for one degree are required to earn a second associate degree. Multiple degrees may be conferred in the same graduation period.

CERTIFICATE

To earn a certificate, students must meet these requirements:

1. A minimum cumulative grade point average of 2.0 overall. (Some programs have additional grade and course requirements. Follow the guide sheet for your program and meet with an academic advisor for complete information.) **Important: only courses with a 2.0 or better will transfer to most four-year colleges and universities.**
2. A minimum grade of 2.0 in each course that applies towards a degree.
3. Completion of specific courses in a certificate.
4. A minimum of 30 credits.
5. A minimum of 12 credits earned at JCC.
6. A completed Application for Graduation for a certificate submitted by the deadline date to Registration and Records, located in the JCC Student Center, main campus or to any JCC Center. Students have five academic years to apply for graduation from the time they completed their last course at JCC. See Graduation and Commencement page 17. Applications are available at all locations, or the JCC web site. Official audits are processed by the Registrar's Office.
7. Completion of the certificate requirements from any catalog of entry during continuous enrollment. Students who are not continuously enrolled and have completed certificate requirements must meet the requirements of the catalog in effect at the time of graduation application. Students re-entering who have not completed the certificate requirements must follow the catalog in effect at the time of their re-entry date.
8. Coursework completed within a reasonable time period. This may require repeating certain essential courses, even though a passing grade was previously earned. An essential course involves material that affects skill development and successful performance and/or contains content that is likely to significantly change over time, as determined by appropriate academic departments.
9. A minimum of six additional hours, beyond those credits completed for one certificate, are required to earn a second certificate. Multiple certificates may be conferred in the same graduation period.

CONCENTRATIONS

JCC offers “concentrations” that are a coordinated set of courses whose purpose is to enable students to quickly achieve a specific occupational goal. Each of these credentials will:

1. Require no fewer than 16 and no more than 29 credit hours.
2. Provide a coherent set of skills and knowledge of benefit to students within specific career areas.
3. Serve as building blocks toward certificates or associate degrees.
4. Require students to have no developmental education holds or have special permission of the appropriate academic department.

GENERAL EDUCATION PHILOSOPHY

A message to students from JCC faculty

General education facilitates the development of an informed and educated person who recognizes and respects the diversity of communities, thinks critically and is proficient at fundamental skills. General education engages students in active learning by providing opportunities to observe, analyze and evaluate, and to apply these skills critically to problems. General education fosters the development of responsible, ethical human beings dedicated to improving their own lives and the lives of others through work, family life, social and political action, cultural awareness and service to others.

Because JCC’s vision includes a variety of educational, cultural and economic goals, the general education requirements involve both traditional intellectual pursuits and practical skill development. As the general education requirements are designed to ensure breadth and depth of knowledge, they are met through carefully designed programs of study. Programs of study help students meet these goals by addressing each of the skill areas identified in the Associate Degree Outcomes. These are skills which the JCC Board of Trustees has determined students should develop or enhance while enrolled in the college.

The Associate Degree Outcomes are:

1. Write clearly, concisely and intelligibly
2. Speak clearly, concisely and intelligibly
3. Demonstrate computational skills and mathematical reasoning
4. Demonstrate scientific reasoning
5. Understand human behavior and social systems, the principles which govern them, and their implications for the present and future
6. Understand and appreciate aesthetic experience and artistic creativity
7. Think critically
8. Make responsible decisions in personal and professional contexts
9. Work productively with others, recognizing individual contributions to group success
10. Understand and respect the diversity and interdependence of peoples and cultures

SUBSTITUTIONS & WAIVERS FOR GENERAL EDUCATION REQUIREMENTS

Students who encounter hardships with required general education courses while pursuing a planned educational program may request consideration of alternative courses through a substitution and/or waiver process. Each request must be reviewed and recommended by the department chair of the course under review and approved by the academic dean and registrar. Substitution and waiver guidelines and forms are available from department chairs, advisors and the Registration and Records Office.

STUDENT ASSESSMENT AT JCC

Assessment is a vital part of the academic life at JCC. The purpose of assessment is to measure student progress in the knowledge, skills and attitudes they exhibit from their studies. Assessment is conducted during class time, at the conclusion of programs of study, and at important stages of the academic cycle on a year by year basis. Students are expected to complete a variety of assessments during their college career. These include course examinations, portfolios, attitude surveys, journals and demonstrations of skills used in occupational fields. A standardized test is administered in selected classes to measure overall student success in the achievement of basic foundational skills. Other assessments are made after students leave JCC that help faculty know the long-range effects of their teaching on student employment and the success of students who transfer to other colleges and universities. Teachers identify course learning objectives and communicate them to students in their course syllabi, in classroom materials, or in teacher-led discussions about course goals. Learning objectives are closely aligned with the Associate Degree Outcomes. Feedback from student performance on the learning objectives provides faculty with an assessment of the teaching and learning that occurs.

ACADEMIC SKILLS REQUIREMENTS

The associate degree and certificate requirements at JCC include proficiency in the academic skills of reading and writing. Similarly, associate degrees and most certificates include proficiency in mathematics. To ensure development of students’ abilities in these skills, the College offers an academic skills development program.

The first phase of the program occurs upon entry to the College when students’ competencies are assessed via ACT/SAT scores and/or College-administered placement assessments. Students with an ACT score of 18 or higher in English, reading and mathematics are exempt from placement assessments and are deemed ready to enter college-level courses. Some programs may require a higher mathematics score. Students with prior successful college coursework may also be exempt. JCC accepts recent course placement scores from other Michigan colleges.

Writing: All JCC students seeking a degree or certificate are required to pass the college-level writing course, ENG 131: Writing Experience or demonstrate proficiency in writing. Upon completion of the writing placement assessment, students whose results indicate a need for further development in writing must enroll in ENG 090 and successfully complete the writing post-assessment before proceeding to the required college-level writing course.

Reading: All JCC students obtaining a degree or certificate are required to demonstrate proficiency in reading. Upon completion of the reading placement assessment students whose results indicate a need for further development in reading must enroll in ENG 080 or ENG 085.

Mathematics: All JCC students seeking a degree or certificate are required to pass a mathematics course best suited to their program of study or demonstrate math proficiency. Upon completion of the mathematics placement assessment, students whose results indicate a need for further development in mathematics must enroll in MTH 095 or MTH 098 and complete the course with at least a 2.0 grade.

Guidelines: ENG 080, ENG 085, ENG 090, ENG 101, ENG 102, ENG 109, ENG 110, MTH 090, MTH 095, and MTH 098 carry academic credit and grades earned are included in calculating the student’s grade point average. The credits for these courses, however, constitute additional graduation requirements beyond the total number of credits required for an Associate in Arts (AA), Associate in Science (AS), and most Associate in Applied Science (AAS) degrees or certificates.

GENERAL TRANSFER – CERTIFICATE (GLTR.CERT)

This 30-credit certificate, designed for students undecided about their course of study, documents requirements needed to complete the MACRAO Agreement. Upon completion of this certificate, students receive the “MACRAO Agreement Satisfied” posted to their transcript. Many, although not all, Michigan universities allow the group of courses with the MACRAO designation to meet the lower-level general education requirements.

While these courses are transferable, many universities prefer students take specific courses and demonstrate competency in certain areas. Additionally, although the minimum GPA for transfer is listed as 2.0, some university require a much higher GPA for admission into their university and almost all require a high GPA for a secondary admit program.

Students should contact their transfer university and complete suggested courses and/or competencies.

Courses cannot be double-counted.

Minimum credits:	30
Minimum cumulative GPA:	2.0
Minimum grade in all courses:	2.0
Minimum JCC credits:	12
MACRAO Agreement:	Yes

ENGLISH (6 credits)

Take the following:

- ENG 131 Writing Experience
- ENG 132 Writing Experience

NATURAL SCIENCE (8 credits)

Take 8 credits from two different disciplines

- BIO 110 Introductory Biology
- BIO 131 General Biology
- BIO 151 General Botany
- BIO 152 General Zoology
- BIO 155 Human Anatomy & Physiology
- BIO 253 Human Anatomy & Physiology I
- CEM 141 General Chemistry I
- GEL 160 Introduction to Geology
- MTH 140 Pre-Calculus

- MTH 151 Calculus I
- MTH 154 Calculus II
- PHY 151 Astronomy
- PHY 231 College Physics I
- PHY 232 College Physics II
- PHY 251 Modern University Physics I
- PHY 252 Modern University Physics II

SOCIAL SCIENCE

Take 8 credits from two different disciplines

- ANT 131 Cultural Anthropology
- ECN 231 Macroeconomics
- ECN 232 Microeconomics
- GEO 131 Physical Geography
- GEO 132 World Regions
- HIS 131 Western Civilization to 1555
- HIS 132 Western Civilization 1555 to Present
- HIS 231 Development of the US through the Civil War
- HIS 232 Development of the US from the Civil War
- PLS 141 American National Government
- PSY 140 Introduction to Psychology
- PSY 152 Social Psychology
- PSY 251 Abnormal Psychology
- PSY 252 Developmental Psychology
- SOC 152 Social Psychology
- SOC 231 Principles of Sociology
- SOC 235 Minority Groups in America
- SOC 236 Women in a Changing Society

HUMANITIES

Take 8 credits from two different disciplines

- ART 111 Art History: Prehistoric to 1400
- ART 112 Art History: Renaissance to Present
- ENG 210 Introduction to Film
- ENG 236 Women in A Changing Society
- ENG 246 Short Story & Novel
- ENG 247 Poetry & Drama
- ENG 249 African American Literature
- ENG 252 Shakespeare
- ENG 254 Children’s Literature
- ENG 255 American Literature — 19th Century
- ENG 256 American Literature — 20th Century
- ENG 257 World Literature I
- MUS 131 Understanding Music
- PHL 231 Introducton to Philosophy
- PHL 232 Logic
- PHL 243 World Religions
- THR 116 Introduction to Theatre

ASSOCIATE IN ARTS (ARTS.AA)

Minimum credits:.....	60
Minimum grade in all courses	2.0
Minimum cumulative GPA:.....	2.0
Minimum JCC credits:	12

NOTE: Only courses with a 2.0 or better transfer to most four-year colleges and universities. To complete the MACRAO Articulation Agreement, students must plan their courses carefully. Completion of the Associate in Arts degree does NOT guarantee the MACRAO designation.

This degree is designed for students who plan to transfer to a four-year college or university to pursue a bachelor's degree. It is selected by students planning to pursue a career in such fields as business, education, psychology and social work.

GENERAL EDUCATION REQUIREMENTS**ADO 1: Write clearly, concisely and intelligibly (6 credits)****Take the following:**

ENG 131 Writing Experience

Choose one of the following:

ENG 132 Writing Experience

ENG 201 Advanced Composition

ADO 2: Speak clearly, concisely and intelligibly (3 credits)**Choose one of the following:**

SPH 231 Communications Fundamentals

SPH 240 Interpersonal Communication

ADO 3: Demonstrate computational skills and mathematical reasoning (3-5 credits)**Choose one of the following:**

MTH 131 Intermediate Algebra

MTH 133 Introduction to Probability & Statistics

MTH 140 Precalculus

MTH 145 Finite Mathematics

MTH 151 Calculus

MTH 154 Calculus II

ADO 4: Demonstrate scientific reasoning (8-9 credits)**Choose two of the following from two different disciplines:**

BIO 110 Introductory Biology

BIO 131 General Biology

BIO 132 Human Biology

BIO 151 General Botany

BIO 152 General Zoology

BIO 155 Human Anatomy & Physiology

BIO 253 Human Anatomy & Physiology I

BIO 220 Microbiology

CEM 131 Fundamentals of Chemistry

CEM 141 General Chemistry I

GEL 160 Introduction to Geology

PHY 131 Conceptual Physics

PHY 151 Astronomy

PHY 231 College Physics I

PHY 251 Modern University Physics I

ADO 5: Understand human behavior and social systems (8-9 credits)**Choose two or three of the following from two different disciplines to equal at least 8 credits:**

ECN 231 Macroeconomics

ECN 232 Microeconomics

HIS 131 Western Civilization to 1555

HIS 132 Western Civilization 1555 to Present

HIS 231 Development of the US through the Civil War

HIS 232 Development of the US from the Civil War

HIS 235 20th Century History

PLS 141 American National Government

PSY 140 Introduction to Psychology

PSY 152 Social Psychology

PSY 245 Infancy & Childhood

PSY 251 Abnormal Psychology

PSY 290 Human Sexuality

SOC 152 Social Psychology

SOC 231 Principles of Sociology

ADO 6: Understand aesthetic experience and artistic creativity (9 credits)**Choose three of the following from two different disciplines:**

ART 111 Art History: Prehistoric to 1400

ART 112 Art History: Renaissance to Present

ENG 210 Introduction to Film

ENG 246 Short Story & Novel

ENG 247 Poetry & Drama

ENG 252 Shakespeare

ENG 254 Children's Literature

ENG 255 American Literature — 19th Century

ENG 256 American Literature — 20th Century

MUS 131 Understanding Music

THR 116 Introduction to Theatre

ADO 7: Think critically**Program courses meet this requirement****ADO 8: Make responsible decisions in personal and professional contexts****(1-3 credits)****Choose one of the following:**

HPF 160 Wellness

HPF 277 Stress Management

HPF 283 Managing Stress and Holistic Health

PHL 236 Ethics

ADO 9: Work productively with others, recognizing individual contributions to group success**Program courses meet this requirement****ADO 10: Understand and respect the diversity and interdependence of the world's peoples and cultures (3-4 credits)****Choose one of the following:**

ANT 131 Cultural Anthropology

ENG 236 Women in Changing Society

ENG 249 African American Literature

ENG 257 World Literature

FRN 131 French I or higher

- GEO 132 World Regions
- GER 131 German I or higher
- HIS 125 African-American History
- HUM 131 Cultural Connections
- PHL 243 World Religions
- PLS 262 International Relations
- MUS 130 Music of Non-Western Cultures
- SOC 235 Minority Groups in America
- SOC 236 Women in Changing Society
- SPN 131 Spanish I or higher

PROGRAM REQUIREMENTS

Additional courses** so that total degree equals 60 credits:
 Plan to visit an academic advisor to obtain a guide sheet and/or discuss requirements for selected program of study. Students are encouraged to choose courses that transfer as equivalent credit to four-year colleges and universities. Students are responsible to see that courses taken meet the requirements for their chosen program of study.

****Additional courses exclude continuing education courses (prefix CED, CEU, CFO, CJT, CSS, ESL, LTL), courses offered through JCC’s workforce training programs (prefixes JTI, PDI), and ENG 080, 085, 090, 101, 102, 109, 110, MTH 090, 095, 098, 100, and 110 and MTT 009.**

If the transfer college or university of your choice is a MACRAO signator, it is recommended that you complete the requirements of The MACRAO Articulation Agreement (see page 33).

PRE-PROFESSIONAL SCIENCE CERTIFICATE (PPSC.CERT)

The Pre-Professional Science Certificate prepares students to transfer to four year institutions either as science majors or as pre-professional students (pre-vet, pre-med, pre-dental, physical and occupational therapy, optometry, pharmacy, physician’s assistant, etc.). Certificate graduates could also find employment as laboratory technicians. The certificate fulfills most of the first year academic entrance requirements for pre-professional programs. Students should verify information with their transfer institutions.

- Minimum credits: 30
- Minimum cumulative GPA: 2.0
- Minimum grade in all courses: 2.0
- Minimum JCC credits: 12
- MACRAO agreement: No

GENERAL EDUCATION REQUIREMENTS – (10 credits)

Take the following:

ENG 131 Writing Experience

Choose one of the following:

MTH 140 Pre-Calculus

MTH 151 Calculus I

Choose one of the following:

(Depending on professional goals or transfer institution requirements)

ANT 131 Cultural Anthropology

PSY 140 Introduction to Psychology

PHL 232 Logic

ECN 231 Macroeconomics or ECN 232 Microeconomics

PLS 141 American National Government

SOC 231 Principles of Sociology

SPH 231 Communications Fundamentals

SPH 240 Interpersonal Communication

PRE-PROFESSIONAL SCIENCE CORE REQUIREMENTS – (20 credits)

Choose four of the following:

(Depending on professional goals or transfer institution requirements)

BIO 131 General Biology

CEM 141 General Chemistry I

CEM 142 General Chemistry II

MTH 133 Statistics

MTH 151 Calculus I or MTH 152 Calculus II

Choose one of the following:

(Depending on professional goals or transfer institution requirements)

BIO 151 General Botany

BIO 152 General Zoology

BIO 155 Human Anatomy & Physiology

BIO 253 Human Anatomy & Physiology I

BIO 220 Microbiology

FUNDAMENTALS of ENGINEERING CERTIFICATE (FUEN.CERT)

The Fundamentals of Engineering Certificate prepares students to transfer to, or enroll in, four year institutions as engineering majors. The certificate fulfills many of the first two years academic requirements for engineering programs. Certificate graduates could also find employment as engineering technicians. While students should verify information with their transfer institutions, these students are advised by mathematics and engineering faculty members according to their specific program goals for the best transfer options.

Minimum credits:	41
Minimum cumulative GPA:	2.0
Minimum grade in all courses:	2.0
Minimum JCC credits:	12
MACRAO Agreement:	No

GENERAL EDUCATION REQUIREMENTS (6 credits)

Take the following:

- ENG 131 Writing Experience
- ENG 132 Writing Experience

PROGRAM CORE REQUIRMENTS – (35 credits)

Take the following:

- CPS 177 Programming in C++
- CEM 141 General Chemistry I
- MTH 151 Calculus I
- MTH 154 Calculus II
- MTH 251 Calculus III
- MTH 254 Differential Equations
- PHY 251 Modern University Physics I
- PHY 252 Modern University Physics II

ASSOCIATE IN SCIENCE (SCIE.AS)

Minimum credits:	60
Minimum grade in all courses:	2.0
Minimum cumulative GPA:	2.0
Minimum JCC credits:	12

NOTE: Only courses with a 2.0 or better transfer to most four-year colleges and universities. To complete the MACRAO Articulation Agreement, students need to plan their courses carefully. Completion of the Associate in Science degree does NOT guarantee the MACRAO designation.

This degree is designed for students who plan to transfer to a four-year college or university to pursue a bachelor’s degree. It is selected by students planning to pursue a career in engineering, medicine, health sciences and other science related professions.

ADO 1: Write clearly, concisely and intelligibly (6 credits)

Take the following:

- ENG 131 Writing Experience

Choose one of the following:

- ENG 132 Writing Experience
- ENG 201 Advanced Composition

ADO 2: Speak clearly, concisely and intelligibly (3 credits)

Take the following:

- SPH 231 Communications Fundamentals

ADO 3: Demonstrate computational skills and mathematical reasoning (4-5 credits)

Choose one of the following:

- MTH 140 Precalculus
- MTH 151 Calculus
- MTH 154 Calculus II

ADO 4: Demonstrate scientific reasoning (4-5 credits)

Choose one of the following:

- BIO 110 Introduction to Biology
- BIO 131 General Biology
- BIO 132 Human Biology
- BIO 151 General Botany
- BIO 152 General Zoology
- BIO 220 Microbiology
- CEM 141 General Chemistry I
- GEL 160 Introduction to Geology
- PHY 151 Astronomy
- PHY 231 College Physics I
- PHY 251 Modern University Physics I

ADO 5: Understand human behavior and social systems, the principles which govern them, and their implications for the present and future (3-4 credits)

Choose one of the following:

- ECN 231 Macroeconomics
- ECN 232 Microeconomics
- HIS 131 Western Civilization to 1555
- HIS 132 Western Civilization 1555 to Present
- HIS 231 Development of the US through the Civil War

HIS 232 Development of the US from the Civil War
 HIS 235 20th Century History
 PLS 141 American National Government
 PSY 140 Introduction to Psychology
 SOC 231 Principles of Sociology

ADO 6: Understand aesthetic experience and artistic creativity (3 credits)

Choose one of the following:

ART 111 Art History: Prehistoric to 1400
 ART 112 Art History: Renaissance to Present
 ENG 210 Introduction to Film
 ENG 246 Short Story & Novel
 ENG 247 Poetry & Drama
 ENG 252 Shakespeare
 ENG 254 Children's Literature
 ENG 255 American Literature — 19th Century
 ENG 256 American Literature — 20th Century
 MUS 131 Understanding Music
 THR 116 Introduction to Theatre

ADO 7: Think critically

Program courses meet this requirement

ADO 8: Make responsible decisions in personal and professional contexts (1-3 credits)

Choose one of the following:

HPF 160 Wellness
 HPF 277 Stress Management
 HPF 283 Managing Stress and Holistic Health
 PHL 236 Ethics

ADO 9: Work productively with others, recognizing individual contributions to group success

Program courses meet this requirement

ADO 10: Understand and respect the diversity and interdependence of the world's peoples and cultures (3–4 credits)

Choose one of the following:

ANT 131 Cultural Anthropology
 ENG 236 Women in Changing Society
 ENG 249 African American Literature
 ENG 257 World Literature I
 FRN 131 French I or higher
 GEO 132 World Regions
 GER 131 German I or higher
 HIS 125 African-American History
 HUM 131 Cultural Connections
 PHL 243 World Religions
 PLS 262 International Relations
 MUS 130 Music of Non-Western Cultures
 SOC 235 Minority Groups in America
 SOC 236 Women in Changing Society
 SPN 131 Spanish I or higher

NATURAL SCIENCE — (16 credits)

(At least one course must be from a different discipline than taken in ADO 4.)

BIO 110 Introduction of Biology
 BIO 131 General Biology
 BIO 132 Human Biology
 BIO 151 General Botany
 BIO 152 General Zoology
 BIO 155 Human Anatomy & Physiology
 or BIO 253 Human Anatomy & Physiology I
 BIO 220 Microbiology
 CEM 131 Fundamentals of Chemistry
 CEM 132 Fundamentals of Organic & Biological Chemistry
 CEM 137 Chemistry of Life
 CEM 141 General Chemistry I
 CEM 142 General Chemistry II
 CEM 241 Organic Chemistry I
 CEM 242 Organic Chemistry II
 GEL 160 Introduction to Geology
 MTH 151 Calculus I
 MTH 154 Calculus II
 MTH 251 Calculus III
 MTH 254 Differential Equations
 PHY 131 Conceptual Physics
 PHY 151 Astronomy
 PHY 231 College Physics I
 PHY 232 College Physics II
 PHY 251 Modern University Physics I
 PHY 252 Modern University Physics II

Courses cannot be counted towards both general education and additional degree requirements.

PROGRAM REQUIREMENTS

Additional courses** so that total degree equals 60 credits:
 Plan to visit an academic advisor to obtain a guide sheet and/or to discuss requirements for your selected program of study. Students are encouraged to choose courses that transfer as equivalent credit to four-year colleges and universities. Students are responsible to see that courses taken meet the requirements for their chosen program of study.

****Additional courses exclude continuing education courses (prefix CED, CEU, CFO, CJT, CSS, ESL, LTL), courses offered through JCC's workforce training programs (prefixes JTI, PDI), and ENG 080, 085, 090, 101, 102, 109, 110, and MTH 090, 095, 098, 100, 110, 120.**

GENERAL EDUCATION – CERTIFICATE (GLED.CERT)

This 30-credit program, designed for students intending to pursue an associate degree from Jackson Community College, documents the completion of general education requirements. It is not intended for undecided transfer students. Undecided transfer students should complete the General Transfer Certificate.

Minimum credits:	30
Minimum cumulative GPA:	2.0
Minimum grade in all courses:	2.0
Minimum JCC credits:	12
MACRAO Agreement:	No

GENERAL EDUCATION REQUIREMENTS

Take the following: (6 credits)

- ENG 131 Writing Experience
- MTH 120 Beginning Algebra or higher

Choose one of the following: (3 credits)

- ENG 132 Writing Experience
- ENG 232 Technical and Business Writing
- ENG 201 Advanced Composition

Choose one of the following: (3 credits)

- SPH 231 Communication Fundamentals
- SPH 240 Interpersonal Communication

Choose one of the following: (1 credit)

- HPF 160 Wellness
- HPF 277 Stress Management
- HPF 283 Managing Stress & Holistic Health
- PHL 236 Ethics

Choose one of the following: (4 credits)

- BIO 110 Introduction to Biology
- BIO 131 General Biology
- BIO 132 Human Biology
- BIO 155 Human Anatomy & Physiology
- BIO 253 Human Anatomy & Physiology I
- BIO 220 Microbiology
- CEM 141 General Chemistry I
- GEL 160 Introduction to Geology
- PHY 151 Astronomy
- PHY 231 College Physics I
- PHY 251 Modern University Physics I

Choose one of the following: (3 credits)

- ECN 231 Macroeconomics
- ECN 232 Microeconomics
- HIS 131 Western Civilization to 1555
- HIS 132 Western Civilization 1555 to Present
- HIS 231 Development of the US through the Civil War
- HIS 232 Development of the US from the Civil War
- HIS 235 20th Century History
- PLS 141 American National Government
- PSY 140 Introduction to Psychology
- SOC 231 Principles of Sociology

Choose one of the following: (3 credits)

- ART 111 Art History: Prehistoric to 1400
- ART 112 Art History: Renaissance to Present
- ENG 210 Introduction to Film
- ENG 246 Short Story & Novel
- ENG 247 Poetry & Drama
- ENG 252 Shakespeare
- ENG 254 Children’s Literature
- ENG 255 American Literature — 19th Century
- ENG 256 American Literature — 20th Century
- MUS 131 Understanding Music
- THR 116 Introduction to Theatre

Choose one of the following: (3 credits)

- ANT 131 Cultural Anthropology
- ENG 236 Women in Changing Society
- ENG 249 African American Literature
- ENG 257 World Literature I
- FRN 131 French I or higher
- GEO 132 World Regions
- GER 131 German I or higher
- HIS 125 African-American History
- HUM 131 Cultural Connections
- PHL 243 World Religions
- PLS 262 International Relations
- MUS 130 Music of Non-Western Cultures
- SOC 235 Minority Groups in America
- SOC 236 Women in Changing Society
- SPN 131 Spanish I or higher

ELECTIVES

Choose from the following courses to reach 30 credits:

- CIS 101, ACC 211, ACC 231, ART 101, BUA 100, DMS 100, EMS 110, HOC 130, MOA 120

ASSOCIATE IN GENERAL STUDIES (GEST.AGS)

Minimum credits:	60
Minimum grade in all courses:	2.0
Minimum cumulative GPA:	2.0
Minimum JCC credits:	12

NOTE: Only courses with a 2.0 or better transfer to most four-year colleges and universities. If students want to complete the MACRAO Articulation Agreement, they need to plan their courses carefully. Completion of the Associate in General Studies degree does not guarantee the MACRAO designation.

This degree is adapted to a student's needs, interests and capabilities.

ADO 1: Write clearly, concisely and intelligibly (6 credits)

ENG 131 Writing Experience

Choose one of the following:

- ENG 132 Writing Experience
- ENG 232 Technical & Business Writing
- ENG 201 Advanced Composition

ADO 2: Speak clearly, concisely and intelligibly (3 credits)

Choose one of the following:

- SPH 231 Communications Fundamentals
- SPH 240 Interpersonal Communication

ADO 3: Demonstrate computational skills and mathematical reasoning (3-5 credits)

Choose one of the following:

- MTH 120 Beginning Algebra
- MTH 131 Intermediate Algebra
- MTH 133 Introduction to Probability & Statistics
- MTH 140 Precalculus
- MTH 145 Finite Mathematics
- MTH 151 Calculus
- MTH 154 Calculus II

ADO 4: Demonstrate scientific reasoning (8-10 credits)

Choose two of the following from two different disciplines:

- BIO 110 Introductory Biology
- BIO 131 General Biology
- BIO 132 Human Biology
- BIO 155 Human Anatomy & Physiology
- BIO 253 Human Anatomy & Physiology I
- BIO 220 Microbiology
- CEM 131 Fundamentals of Chemistry
- CEM 137 Chemistry of Life
- CEM 141 General Chemistry I
- GEL 160 Introduction to Geology
- NSC 131 Contemporary Science
- PHY 131 Conceptual Physics
- PHY 151 Astronomy
- PHY 231 College Physics I
- PHY 251 Modern University Physics I

ADO 5: Understand human behavior and social systems, the principles which govern them, and their implications for the present and future (6-8 credits)

Choose two of the following:

- ECN 231 Macroeconomics
- ECN 232 Microeconomics
- HIS 131 Western Civilization to 1555
- HIS 132 Western Civilization 1555 to Present
- HIS 231 Development of the US through the Civil War
- HIS 232 Development of the US from the Civil War
- HIS 235 20th Century History
- PLS 141 American National Government
- PSY 140 Introduction to Psychology
- PSY 152 Social Psychology
- PSY 245 Infancy & Childhood
- PSY 251 Abnormal Psychology
- PSY 252 Developmental Psychology
- PSY 290 Human Sexuality
- SOC 152 Social Psychology
- SOC 231 Principles of Sociology

ADO 6: Understand aesthetic experience and artistic creativity (6 credits)

Choose two of the following:

- ART 111 Art History: Prehistoric to 1400
- ART 112 Art History: Renaissance to Present
- ENG 210 Introduction to Film
- ENG 246 Short Story & Novel
- ENG 247 Poetry & Drama
- ENG 252 Shakespeare
- ENG 254 Children's Literature
- ENG 255 American Literature — 19th Century
- ENG 256 American Literature — 20th Century
- MUS 131 Understanding Music
- THR 116 Introduction to Theatre

ADO 7: Think critically

Program courses meet this requirement

ADO 8: Make responsible decisions in personal and professional contexts (1-3 credits)

Choose one of the following:

- HPF 160 Wellness
- HPF 277 Stress Management
- HPF 283 Managing Stress & Holistic Health
- PHL 236 Ethics

ADO 9: Work productively with others, recognizing individual contributions to group success

Program courses meet this requirement

ADO 10: Understand and respect the diversity and interdependence of the world's peoples and cultures (3-4 credits)

Choose one of the following:

- ANT 131 Cultural Anthropology
- ENG 236 Women in Changing Society
- ENG 249 African American Literature
- ENG 257 World Literature

FRN 131 French I or higher
 GEO 132 World Regions
 GER 131 German I or higher
 HIS 125 African-American History
 HUM 131 Cultural Connections
 PHL 243 World Religions
 PLS 262 International Relations
 MUS 130 Music of Non-Western Cultures
 SOC 235 Minority Groups in America
 SOC 236 Women in Changing Society
 SPN 131 Spanish I or higher

PROGRAM REQUIREMENTS

Additional courses** so that total degree equals 60 credits:
 Plan to see an academic advisor to discuss requirements for your selected program of study.

****Additional courses exclude continuing education courses (prefix CED, CEU, CFO, CJT, CSS, ESL) or courses offered through JCC's workforce training programs (prefixes JTI, PDI).**

ASSOCIATE IN APPLIED SCIENCE

This degree is recommended for students who plan to enter a specific occupation upon graduation from JCC.

DEGREE, ELECTIVE & RELATED REQUIREMENTS

See an academic advisor to obtain a guide sheet and to discuss requirements for your selected program of study. Degree requirements are also available on our web site.

IMPORTANT INFORMATION FOR TRANSFER STUDENTS

You may be able to earn as much as half your bachelor's degree program (freshmen and sophomore years) at JCC. A bachelor's degree at most four-year colleges and universities requires 124 semester credit hours, and most colleges accept 60-64 credits from JCC. Some allow students to transfer more credits but still require about 60 hours to be taken at their institution.

You can decide whether to earn an associate degree from JCC before transferring. Transfer students who wish to earn a degree usually pursue an Associate in Arts or an Associate in Science. Colleges with completion or fast-track degree programs for working adults may allow students to transfer all the credits earned from an Associate in Applied Science degree. Others may accept up to 90 credits earned at JCC and require an additional 30 credit hours. In other programs, it may be to the students advantage to complete the MACRAO Articulation Agreement (see page 33).

Earning a degree from JCC does not automatically qualify students to enter as a junior at the transfer institution. Four-year institutions reserve the right to evaluate each course completed at JCC for transfer credit.

The Transferability of Courses Depends On:

- the intended transfer college
- the program of study, i.e., the major and/or minor(s)
- the grade received in the JCC course (2.0 is minimum acceptable grade point)
- whether the transfer college has an equivalent course
- the level of the course (e.g. an intermediate algebra course may be acceptable for one program, but not for others that require higher levels of mathematics).

Students are encouraged to keep the syllabi and course materials (including quizzes/tests, notes from courses, and names/authors of texts) of all courses they intend to transfer. Transfer courses are formally articulated with about 20 four-year colleges and universities in Michigan and recognized by other colleges and universities throughout the United States.

TOOLS TO HELP TRANSFER STUDENTS

Each transfer institution has its own requirements for admission, majors, general education, and second admit programs. Requirements are stated in the transfer college's catalog or you can find additional information on JCC's web site. General guidelines are available to help students choose courses that transfer to their preferred college. Program guide sheets are available that list JCC courses that meet general education and specific program requirements at various senior institutions. Guide sheets are available in the Student Center on JCC's main campus or at JCC @ VO-TECH and Hillsdale LeTarte Center or on the web site.

TRANSFER PROCEDURE - A CHECKLIST

Review the following checklist at least a year prior to transferring; JCC suggests starting in your first semester.

1. See a JCC academic advisor.
2. Decide on the school to which you intend to transfer. Colleges/universities vary in requirements.
3. Decide on a program of study or major. JCC academic advisors provide program guide sheets outlining which courses to take. Also, request a catalog from your intended transfer college.
4. Visit transfer colleges/universities and talk with staff and students.
5. Apply for transfer admission well in advance of the anticipated date of transfer. Applications are available from the transfer institution.
6. Request official transcripts to be mailed to each college or university you plan to attend. Transcripts are only accepted if they are mailed directly by the college and have the official seal. Request JCC transcripts from the Registrar's Office in writing; there is no charge.
7. Complete the appropriate financial aid application materials. Financial assistance is not awarded until the student is accepted by the institution. Request financial aid transcripts from each previous institution attended, regardless of whether or not you ever applied for financial aid from that college or university.

SPECIAL NOTE ON FOREIGN LANGUAGE REQUIREMENTS

Some four-year colleges and universities require competency in a foreign language equivalent to two years of college study. Students transferring to an institution requiring competency in a foreign language should consider meeting this requirement before transferring.

SECOND ADMIT PROGRAMS

Some programs at four-year institutions require more than the general college admissions requirements. For instance, even though a student may be accepted by Michigan State University, he/she will need to fulfill additional requirements before being accepted into the College of Education. To find out about entry standards and application deadlines, check with the specific academic department (e.g. education, business, engineering) at the transfer institution or check their college catalog.

PRE-PROFESSIONAL PROGRAMS

Students interested in pursuing curricula such as law, medicine, dentistry and other advanced degrees may choose to enroll in pre-professional programs at JCC (pre-law, premedical, pre-dental, etc.) Follow the sequence of courses recommended by the transfer institution. Entrance tests required for professional degrees - GMAT, GRE, MCAT, LSAT and others - are usually taken prior to the senior year in college. JCC students should check on the availability of preparation coursework at the transfer institution.

MACRAO ARTICULATION AGREEMENT WITH COLLEGES & UNIVERSITIES

The Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) Articulation Agreement facilitates the transfer of students from community colleges to four-year colleges and universities in Michigan. The agreement ensures that students who have completed the requirements of the MACRAO Articulation Agreement as defined by JCC have satisfied the freshman and sophomore level general education requirements at other participating schools. By carefully choosing courses, students may obtain an associate degree from JCC and complete the MACRAO Articulation Agreement. However, students do not need to obtain a degree to earn the MACRAO designation. If students meet all the requirements of the agreement, they should contact Registration and Records Office and request the MACRAO designation on their transcripts.

The following colleges participate to some degree with JCC in the MACRAO Articulation Agreement:

Adrian College
 Albion College
 Alma College
 Andrews College
 Aquinas College
 Baker College
 Central Michigan University
 Cleary College
 Davenport University
 Eastern Michigan University
 Ferris State University
 Grand Valley State University
 Hope College
 Kettering Institute
 Lake Superior State University
 Lawrence Technological University
 Madonna College
 Marygrove College
 Northern Michigan University
 Oakland University
 Olivet College
 Saginaw Valley State University
 Spring Arbor University
 Western Michigan University

REQUIREMENTS OF THE MACRAO ARTICULATION AGREEMENT

Minimum grade 2.0 for each course

Note: This list reflects only current courses. The registrar's office maintains a historical listing of courses that are accepted as part of MACRAO.

ENGLISH COMPOSITION — (6 credits)

English (ENG) 131 and 132

NATURAL SCIENCE

(8 credits total from two disciplines; one must be laboratory science)

Biology (BIO) 110, 131, 132, 151, 152, 155, 220, 253

Chemistry (CEM) 131, 132, 137, 141, 142

Geology (GEL) 160
Mathematics (MTH) 133, 140, 145, 151, 154, 251, 254
Natural Science (NSC) 131
Physics (PHY) 131, 151, 231, 232, 251, 252

SOCIAL SCIENCE

(8 credits total from two disciplines)

Anthropology (ANT) 131
Criminal Justice (CRJ) 111, 117
Economics (ECN) 231, 232
Geography (GEO) 131, 132
History (HIS) 120, 131, 132, 231, 232
Psychology (PSY) 140, 152, 245, 251, 252, 290
Political Science (PLS) 141
Sociology (SOC) 117, 152, 231, 235, 236, 251

HUMANITIES

(8 credits total from two disciplines)

Art (ART) 111, 112
English (ENG) 210, 236, 246, 247, 249, 252, 255, 256, 257
French (FRN) 131, 132
German (GER) 131, 132
History (HIS) 120, 131, 132, 231, 232
Humanities (HUM) 131
Music (MUS) 130, 131, 132, 151, 152
Philosophy (PHL) 231, 232,
Spanish (SPN) 131, 132, 231, 232
Theatre (THR) 116