GEORGE MASON UNIVERSITY
School of Art
Course Syllabus

Course: New Media in the Creative Arts

Course Information: Spring 2016
AVT 180, Sections 01 & 02
Tuesdays & Thursdays 10:30 - 11:45 (Sec. 02), 12:00 - 1:15 (Sec. 01)

Instructor: Justin Raphael Roykovich (Kass)
Instructor Contact Info:
jkass1@gmu.edu (GMU Email)
j roykovich@gmail.com (Alternative Email)
I usually do my best to respond to students within 24-48 hours. However, if there is a delay, there is usually a reason behind it, especially on weekends. Please be patient with email.

Office Hours: Office hours are by appointment only, or usually before/after class sessions.

Note: This syllabus is intended as a living document and is subject to updates and revisions at the instructor's discretion.

PREREQUISITES: There are no prerequisites for this course. It is therefore assumed that the majority of students will have little to no experience with professional graphic design, videography, photo editing, digital illustration and the like. Studio Fundamentals I and II are suggested prerequisites and serve as strong foundation courses to general art making at the university level.

COURSE DESCRIPTION:
"Introduces computing from artist's perspective. Emphasizes computer use for artistic creation and research. This course will investigate ways in which contemporary artists employ tools of digital culture. Students will work to create meaningful art that demonstrates both their conceptual awareness and their technical abilities."
(from the GMU Course Catalog)

AVT 180 is a three credit course designed as an introduction to digital art-making techniques. However, it is also stands as an invitation into the world of New Media as a whole. Through involvement in this course, a student will come to understand more about New Media and its relation to both the contemporary art world and to the media culture that informs every day life. By exposure to this world, a successful student will be able to leave this course with a more developed artistic understanding concerning not only New Media, but overall composition, content and conceptual thinking in relation to the creative art making process that is mediated through technology.

While it is a main goal of this course for students to gain an understanding of the technical aspects of software and applications related to New Media, I will say this: I am far more interested in the conceptual development of a student than I am in a student retaining a specific skill set. Skills can always be taught, and through rapidly changing technology, those skills will most likely need to be updated and relearned periodically. However, a conceptual backbone through art making will serve to deepen a student's creative problem solving to build societal relationships when dealing in the issues and topics of the 21st century.
LEARNING OUTCOMES: Throughout the semester, a successful student in this class will:

- research and discuss the legacy of New Media and other digital art-making through contemporary works and writings of established artists to gain a foundational understanding of integral art theories and movements within the medium;

- build critical thinking and problem solving skills while learning formal art principles of image composition and design to successfully produce compelling and visually interesting New Media works;

- become competent with various & necessary software applications, their functions and terminology to complement a life immersed in an ever increasing digital world;

In addition to the above, students who actively contribute will gain knowledge and understanding of a contemporary art discourse through being engaged in critiquing the work of their peers, along with being objectively self-critical about their own work. More about participation and expectations for critiques is outlined below under “Participation Grading.”

GRADING: During the semester, everything you do for this class will collect points that will add up to 100, thereby determining your grade for the course:

(Project topics are subject to change. Projects will be discussed in class, and/or supplemented with information on Blackboard.)

Project A: Blogs (ongoing throughout semester) - 5 points
Project 1: Gifs/FCP - 10 points
Project 2: Photoshop - 10 points
Project 3: Illustrator - 10 points
Project 4: Collaborative Class Zine - 15 points
Project 5: New Media Self Portrait - 15 points
Class Participation - 20 points
Weekly Reading/Writing Assignments - 15 points

Therefore, 0 – 59 points will result in a failure of the class. 60 – 69 points will result in a D, 70 – 79 a C, 80 – 89 a B, and 90 – 100, an A.

Note: Even if you successfully complete all of the projects, it is impossible to earn above 60 points (a D-) for this course without taking class participation and preparedness seriously.

Extensions for projects will NOT be granted unless in extreme circumstances, i.e. death or dismemberment. It is the student's responsibility to approach the instructor and negotiate an extension in those situations.

Furthermore, projects are to be handed in on the day of critique, and on that day only. No emailed projects will be accepted.
GRADING (CON’T): Because this is a 100-level class, I am required by the university to issue mid-semester grades. Of course, any student is welcome to inquire about their grade at any point.

Except in the event of clerical error, final semester grades will not be changed for any student once they have been submitted. If a student is concerned about their final grade, it is their responsibility to approach the instructor and inquire about their grade and ways to achieve a more successful number of points during the course of the semester. Once semester grades are submitted, those grades are final.

Grading in the arts has a bad reputation of being subjective when compared to other academic courses. It is true that in many ways, it is up to the instructor’s observations of the way you conduct your practice in class that bears significant weight on your grade. However, there is a high level of objectivity to this course, namely successful completion of each of the projects, participation in critiques and dialogs, respect of the studio and so on. If a student: puts forth their best effort in each class period; has a hunger for learning and in pushing themselves to the next level; is eager to transcend the last step they left off at; puts forth genuine and helpful critique for their peers; respects & maintains the studio space - there is no reason they should fear a low grade in this class.

EVALUATIONS: Ultimately, each student will be evaluated on how well they adhere to these outlined policies set forth by the syllabus. In addition, with each project, the instructor will be looking for and grading accordingly to the following art-making standards, of which we will go over in class throughout the semester:

- Composition, Creativity, Conceptual Development, Design
- Ambition, Rigor and Involvement
- Subject Matter, Theme, Structure, Size/Scale, Overall Form
- Attention paid to and respect for the studio, equipment and the class community

Furthermore, students are expected to research and be engaged in contemporary art discourse. To facilitate this, students will be encouraged to write about artists or pieces of work that they have been thinking about lately in regards to their practice in their blogs. The instructor will give resources as to help in finding various avenues for students to be find that information.

At the end of the semester, I will ask for a CD/DVD or flash drive that will contain all of your projects. We will discuss file type and size at a later point, though expect to turn in high quality files (i.e. .tiff/.PDF files at 300 DPI, etc.). Also, if there may be any installation specific elements to your projects, be prepared to give me installation shots as well.

Please note: If you do not give this to me, you will receive an Incomplete as a grade until you do so.
A student's conscious participation in the class is essential. Participation includes being physically present, actively engaged, having an open mind and being generally pleasant and professional in their demeanor. In addition to active discussion of screenings and readings, participation includes the ability to both give and receive constructive criticism to and from your fellow students.

Your ability to respectfully critique, describe, or otherwise account for artistic decisions in a useful way is key to your success in the course. Similarly, you must be able to receive constructive criticism with maturity (see below). Part of the instructor's job is to foster a supportive and constructive environment in which class comments are well-intended and clear, even when being critical. Everyone is expected to have something meaningful to say for each critique. There is no way to make above a C+ in this course if you fail to participate in class discussions and especially class critiques.

Class participation also includes your involvement in the community of the studio: how you maintain your space, your willingness to help others, how you interact with the equipment, your respect for your classmates and instructor, respect for your work, and so on. It is your overall commitment and desire to further your own work combined with your contributions to the community of the studio that also builds into the class participation grade.

During critiques, I will also take note of who participates by offering comments and suggestions. This is to promote an equal balance among people contributing, but also as a way to push those who might be more quiet to speak up. We all obviously have our strengths, and talking in front of others might not be yours. (I, in fact, loathe most public speaking.) However, it is a part of the classroom environment to push ourselves to go beyond our comfort zones. I will watch for growth in this area and this will contribute to your participation grade. Contrarily, I am not interested in talking for talking's sake. Comments should be useful and constructive for your peers.

Please note: if you are absent for a crit, your absence will count against your participation grade, in addition to counting as a regular absence.

A quick note on maturity: topics in the arts often touch upon controversial and taboo subject matter. It is common (although certainly not required) for works that we will view and make in this class to address issues such as sexuality, identity, morality, personal history and so on. These works may contain nudity, sexual situations, questionable judgment or other circumstances that may be uncomfortable for any viewer to witness. These works may call into question your personal belief system. It is possible and essential to critique these works objectively, to gain the intrinsic aesthetic value without placing a screen of cultural normativity between yourself and the work. A student's growth as an artist depends on that ability to be objective and they are partially graded on that ability to develop.

Finally: racist, sexist, homophobic, xenophobic or hateful remarks of any kind will not be tolerated, either in your work or in your comments for this class. Furthermore, no work that deliberately harms yourself, others or animals will be tolerated or accepted.
ATTENDANCE: “Students are expected to attend the class periods of the courses for which they register. In-class participation is important not only to the individual student, but also to the class as a whole. Class participation may be a factor in grading, therefore instructors may use absence, tardiness, or early departure as de facto evidence of nonparticipation. Students who miss an exam with an acceptable excuse may be penalized according to the individual instructor’s grading policy, as stated in the course syllabus.”

I cannot stress enough how important it is to be physically and mentally be present in class. Attendance at each class meeting is required. Three unexcused absences are begrudgingly tolerated during the course of the semester. Each additional unexcused absence beyond 3 will result in the subtraction of 5 points from your total final grade. It is extremely important to keep track of your own attendance, as those deductions add up quickly. Obviously, life happens and things come up. Therefore, the student should plan to attend every class, and if a class needs to be missed due to illness or another life event, they have a reserve of “available” absences.

Three late arrivals will count as an absence, and will incur an additional -5 points. Attendance in class also means being active, mentally present, and prepared. The instructor reserves the right to mark absent any student who is sufficiently inactive, uninvolved or unprepared.

Studio art classes are designed to be intensive. If you miss one class, you are missing a significant portion of the class overall. Additionally, with small studio classes, a student’s presence (or non-presence) greatly affects the direction of discussions within the class period.

Furthermore, it is expected that you will spend 4 to 6 hours outside of class time on your work for this class. George Mason University is a research institution, and this applies to the arts as well. It is crucial that a student’s creative work reflects study and research outside of class. The quality of a student's conceptual work will show whether or not this has been accomplished.

If class needs to be missed due to a religious holiday, it is the student’s responsibility to bring that to the instructor’s attention beforehand.

AND: Lastly, please keep in mind that no one is entitled to an A. To earn an A, expect to do the work needed.

TEXTBOOKS: There is one required book for this class:

Steal Like An Artist, by Austin Kleon
http://amzn.com/0761169253

Recommended:
The Adobe Classroom in a Book Series, specifically Photoshop, would be useful.
99 Ways to Tell a Story, by Matt Madden.
REQUIRED MATERIALS:

1. A digital storage device of some sort, at least 500 GB recommended. The more GBs, the better. (For example, Western Digital Passports at about 1TB can be picked up on Amazon for about $60.)

2. A sketchbook/notebook of some sort, to take notes and write down ideas *sketch* and hold class materials. It does not have to specific to this class. In fact, my personal feeling is that you should have one that you use overall. However, I may ask to see it from time to time, so do not put anything in that you would not want me to see.

3. Not required, but recommended, is a digital camera. Does not have to be a DSLR, but should be of high enough pixel quality to get good images.

RECOMMENDED SUPPLIES:

Photo Craft: 6025 Burke Center Parkway, Burke 703.250.5555
Penn Camera: www.penncamera.com

LOCAL PHOTO SUPPLIERS:

KEH Camera: www.keh.com
B&H Photo and Video, New York (aka a digital artist’s wonderland):
http://www.bhphotovideo.com/

ONLINE/NATIONAL SUPPLIES:

Amazon, Best Buy, Target, Walmart, etc.

ONLINE RESOURCES:

PetaPixel: www.petapixel.com
UBU Web: http://www.ubuweb.com/
Hyperallergic: http://hyperallergic.com/
GMU IT CORE REQUIREMENT: “This course satisfies a Mason Core Foundation Requirement for Information Technology:

Learning Outcomes:
Almost no area of academic, professional, or personal life is untouched by the information technology revolution. Success in college and beyond requires computer and information literacies that are flexible enough to change with a changing IT environment and adaptable to new problems and tasks.

The purpose of the information technology requirement is to ensure that students achieve an essential understanding of information technology infrastructure encompassing systems and devices; learn to make the most of the Web and other network resources; protect their digital data and devices; take advantage of latest technologies; and become more sophisticated technology users and consumers.

Courses meeting the “IT only” requirement must address learning outcomes 1 and 2, and one additional outcome. Courses meeting “IT with Ethics component” must address outcomes 1, 2, 3, and 5. Courses meeting the only IT Ethics component must address outcomes 3 and 5.

1. Students will be able to use technology to locate, access, evaluate, and use information, and appropriately cite resources from digital/electronic media.

2. Students will understand the core IT concepts in a range of current and emerging technologies and learn to apply appropriate technologies to a range of tasks.

3. Students will understand many of the key ethical, legal and social issues related to information technology and how to interpret and comply with ethical principles, laws, regulations, and institutional policies.

4. Students will demonstrate the ability to communicate, create, and collaborate effectively using state-of-the-art information technologies in multiple modalities.

5. Students will understand the essential issues related to information security, how to take precautions and use techniques and tools to defend against computer crimes.”
GEORGE MASON UNIVERSITY
School of Art
Policies (continued)

GMU ARTS CORE REQUIREMENT:
“Mason courses in the film making, visual and performing arts stress generative, inquiry based learning through direct aesthetic and creative experience in the studio environment. Art history courses address the intrinsic relationship of personal and cultural creativity, and the manifestation of aesthetics, visual culture and visual narrative within historical contexts.

Learning Outcomes:
Students who successfully complete a course in the Arts category must meet the first learning outcome and a minimum of two of the remaining four learning outcomes:

- Demonstrate an understanding of the relationship between artistic process, and a work’s underlying concept, and where appropriate, contexts associated with the work.
- Identify and analyze the formal elements of a particular art form using vocabulary and critique appropriate to that form.
- Analyze cultural productions using standards appropriate to the form, as well as the work’s cultural significance and context.
- Analyze and interpret the content of material or performance culture through its social, historical, and personal contexts.
- Engage in generative artistic processes, including conception, creation, and ongoing critical analysis.”

ARTSBUS: Dates for Spring 2016: February 20, March 19, April 9

“Each student must have up to 5 AVT 300/Artsbus credits before graduation. For credit to appear on your transcript you must enroll in AVT 300. This also applies to anyone who intends to travel to New York independently, or do the DC Alternate Assignment.

If you plan/need to go on multiple ArtsBus trips during a semester and need them towards your total requirement, you must enroll in multiple sections of AVT 300. Please go to the ArtsBus website: http://artsbus.gmu.edu “Student Information” for additional, very important information regarding ArtsBus policy.

Non-AVT majors taking art classes do not need Artsbus credit BUT may need to go on the ArtsBus for a class assignment. You can either sign up for AVT 300 or buy a ticket for the bus trip at the Center of the Arts. Alternate trips must be approved by the instructor of the course that is requiring an ArtsBus trip.”

Instructor’s Note: I am trying to go on all three ArtsBus trips. I will allow extra credit to your participation grade for the course through the accompaniment of a Chelsea gallery tour by led by yours truly on an ArtsBus. I encourage all of you to go to New York and see what’s going on in the galleries. It will inevitably influence you & the work you produce. If you want this opportunity, please arrange it in advance.
PERSONAL DEVICES: “In accordance with George Mason University policy, turn off all cellular telephones and other wireless communication devices at the start of class. The instructor of the class will keep his/her cell phone active to assure receipt of any Mason Alerts in a timely fashion; or in the event that the instructor does not have a cell phone, he/she will designate one student to keep a cell phone active to receive such alerts.”

There are few classroom disruptions more tiresome for most than those who are actively impolite. Therefore, please do not text. Do not pick up calls. Do not be on Facebook. Do not pick up your phone during class, at all. It is rude and disrespectful, not only to your instructor but to your classmates. Habitual practice of these things will dramatically affect your participation grade. Class periods are only an hour and fifteen minutes long - a student should be able to withdraw from their devices and social media long enough to be completely present. Also, no laptops outside of studio work time. If the instructor or another student is speaking, you should be actively listening.

A quick note on studio music: I do not mind - and I actually encourage - the listening to music during studio work periods - but please be respectful of your fellow classmates. If you are on headphones, I should not be able to hear your Ke$ha playlist. Aside from ruining your hearing, others are trying to concentrate. Furthermore, you need to be aware of your surroundings. People in the studios (especially traditional darkrooms, printmaking studios, etc.) use chemicals and materials that can harm you and/or the work. Music is to be enjoyed, but your mind also needs to be present.

OFFICIAL GMU EMAIL: “Mason uses electronic mail to provide official information to students. Examples include communications from course instructors, notices from the library, notices about academic standing, financial aid information, class materials, assignments, questions, and instructor feedback. Students are responsible for the content of university communication sent to their Mason e-mail account, and are required to activate that account and check it regularly.”

OPEN STUDIO HOURS: “SOA teaching studios are open to students for extended periods of time mornings, evenings and weekends whenever classes are not in progress. Policies, procedures and schedules for studio use are established by the SOA studio faculty and are posted outside the studios.”

Students taking School of Art classes should have access to the third floor Open Lab 24/7. However, the building automatically locks each night at 12am and unlocks at 6am. If you are in the building before it locks, you may stay as long as you wish. Please note that the building may also be closed for holidays.
IMPORTANT DEADLINES:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 18</td>
<td>Martin Luther King Day (no classes)</td>
</tr>
<tr>
<td>Jan 19</td>
<td>First day of classes; last day to submit Dormicle Reclassification Application; Payment Due Date; full semester waitlists removed</td>
</tr>
<tr>
<td>Jan 25</td>
<td>Summer 2016 Graduation Intent Available via Patriot Web</td>
</tr>
<tr>
<td>Jan 26</td>
<td>Last day to add classes—all individualized section forms due</td>
</tr>
<tr>
<td>Feb 2</td>
<td>Last day to drop with a 33% tuition penalty</td>
</tr>
<tr>
<td>Feb 19</td>
<td>Final Drop Deadline (67% tuition penalty)</td>
</tr>
<tr>
<td>Feb 19</td>
<td>Last day to file your Spring 2016 Graduation Intent</td>
</tr>
<tr>
<td>Mar 1</td>
<td>Immunization Record Deadline</td>
</tr>
<tr>
<td>Mar 15 - Mar 18</td>
<td>Midterm progress reporting period (100-200 level classes)...grades available via Patriot Web</td>
</tr>
<tr>
<td>Feb 22 - Mar 25</td>
<td>Selective Withdrawal Period (undergraduate students only)</td>
</tr>
<tr>
<td>Mar 7 - Mar 13</td>
<td>Spring Break</td>
</tr>
<tr>
<td>Mar 25</td>
<td>Incomplete work from Fall 2015 due to Instructor</td>
</tr>
<tr>
<td>Apr 1</td>
<td>Incomplete grade changes from Fall 2015 due to Registrar</td>
</tr>
<tr>
<td>Apr 29</td>
<td>Dissertation/Thesis Deadline</td>
</tr>
<tr>
<td>May 2</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>May 3</td>
<td>Reading Days, reading dates provide students with additional study time for final examinations. Faculty may schedule optional study sessions, but regular classes or exams may not be held.</td>
</tr>
<tr>
<td>May 4 - May 11</td>
<td>Exam Period (beginning at 7:30 a.m.)</td>
</tr>
<tr>
<td>May 14</td>
<td>Commencement and Degree Conferral Date</td>
</tr>
</tbody>
</table>

Once the add and drop deadlines have passed, instructors do not have the authority to approve requests from students to add or drop/withdraw late. Requests for late adds (up until the last day of classes) must be made by the student in the SOA office (or the office of the department offering the course), and generally are only approved in the case of a documented university error (such as a problem with financial aid being processed). LATE ADD fee will apply. Requests for non-selective withdrawals and retroactive adds (adds after the last day of classes) must be approved by the academic dean of the college in which the student's major is located. For AVT majors, that is the CVPA Office of Academic Affairs, Performing Arts Building A407.

VISUAL VOICES: “Visual Voices is a year-long series of lectures by artists, art historians and others about contemporary art and art practice. Visual Voices lectures are held on Thursday evenings from 7:20-9:00 p.m. in Harris Theater.”

Dates and speakers available at http://soa.gmu.edu/visualvoices/

DISABILITIES: “If you have a diagnosed disability or learning difference and you need academic accommodations, please inform me at the beginning of the semester and contact the Disabilities Resource Center (SUB I room 234, 703-993-2474). You must provide the instructor with a faculty contact sheet from that office outlining the accommodations needed for your disability or learning difference. All academic accommodations must be arranged in advance through the DRC.”

Instructor’s Note: This is extremely important - I legally cannot make academic accommodations for you without the DRC's involvement. If you have any kind of disability, (physical, mental, emotional or otherwise), please see them ASAP in order to get me the proper documentation needed to help you.
GEORGE MASON UNIVERSITY
School of Art
Policies (continued)

DIVERSITY: “This class will be conducted as an intentionally inclusive community that celebrates diversity and welcomes the participation in the life of the university of faculty, staff and students who reflect the diversity of our plural society. All may feel free to speak and to be heard without fear that the content of the opinions they express will bias the evaluation of their academic performance or hinder their opportunities for participation in class activities. In turn, all are expected to be respectful of each other without regard to race, class, linguistic background, religion, political beliefs, gender identity, sex, sexual orientation, ethnicity, age, veteran's status, or physical ability.”

HONOR CODE: “Students in this class are bound by the Honor Code, as stated in the George Mason University Catalog. The honor code requires that the work you do as an individual be the product of your own individual synthesis or integration of ideas. (This does not prohibit collaborative work when it is approved by your instructor.) As a faculty member, I have an obligation to refer the names of students who may have violated the Honor Code to the Student Honor Council, which treats such cases very seriously.

No grade is important enough to justify cheating, for which there are serious consequences that will follow you for the rest of your life. If you feel unusual pressure about your grade in this or any other course, please talk to me or to a member of the GMU Counseling Center staff.

Using someone else’s words or ideas without giving them credit is plagiarism, a very serious Honor Code offense. It is very important to understand how to prevent committing plagiarism when using material from a source. If you wish to quote verbatim, you must use the exact words and punctuation just as the passage appears in the original and must use quotation marks and page numbers in your citation. If you want to paraphrase or summarize ideas from a source, you must put the ideas into your own words, and you must cite the source, using the APA or MLA format. (For assistance with documentation, I recommend Diana Hacker, A Writer’s Reference.) The exception to this rule is information termed general knowledge—information that is widely known and stated in a number of sources. Determining what is general knowledge can be complicated, so the wise course is, ‘When in doubt, cite.’

Be especially careful when using the Internet for research. Not all Internet sources are equally reliable; some are just plain wrong. Also, since you can download text, it becomes very easy to inadvertently plagiarize. If you use an Internet source, you must cite the exact URL in your paper and include with it the last date that you successfully accessed the site.”

ART & ETHICS “As professionals responsible for the education of undergraduate and graduate art and design students, the faculty of the School of Art adheres to the ethical standards and practices incorporated in the professional Code of Ethics of our national accreditation organization, The National Association of Schools of Art and Design (NASAD).”
GEORGE MASON UNIVERSITY
School of Art
Policies (continued)

LAB POLICIES: NO FOOD OR DRINK IN THE STUDIO OR SOA COMPUTER LABS!
Seriously. None. WHATSOEVER.

SoA PRINT STUDIO “School of Art Print Studio (SOAP) is located in the School of Art Building on the Fairfax Campus. As a non-profit studio, SOAP offers a variety of services including printing and production services to students, faculty and staff. All jobs are processed with high quality materials on state-of-the-art equipment, specifically for graphic design portfolios, mixed-media paintings and reproductions, posters, handmade books, student assignments and proof sheets. More information can be found at soaprint.gmu.edu or 703-993-7203.”

WRITING CENTER: Students who are in need of intensive help with grammar, structure or mechanics in their writing should make use of the services of Writing Center, located in Robinson A116 (703-993-1200). The services of the Writing Center are available by appointment, online and, occasionally, on a walk-in basis.

COLLABORATIVE LEARNING HUB: Located in Johnson Center 311 (703-993-3141), the lab offers in-person one-on-one support for the Adobe Creative Suite, Microsoft Office, Blackboard, and a variety of other software. Dual monitor PCs make the lab ideal for collaborating on group projects, Macs are also available; as well as a digital recording space, collaborative tables, and a SMART Board. Free workshops are also available (Adobe and Microsoft) through Training and Certification; visit ittraining.gmu.edu to see the schedule of workshops and to sign up.

NETIQUETTE & PROFESSIONALISM: Finally, students should keep in mind that the classroom is a professional space and all correspondence with the instructor and subsequent administrators should exist on that professional level. For example, emails to the instructor or other administrators should not start with the word “Hey”. All writings, including email, should be cohesive and coherent while using proper grammar and spelling.

Along with overall maturity, how the student conducts and presents themselves in this classroom environment will not only inevitably affect their overall grade, but their ability to develop into professionals in their field.