GRAPHIC COMMUNICATION 1

IE University
Professor: MAXON HIGBEE
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Academic year: 22-23
Degree course: FIRST
Semester: 1º
Category: BASIC
Number of credits: 6.0
Language: English

PREREQUISITES

SUBJECT DESCRIPTION

Architectural Expression is an initiating subject where first year students acquire a capacity to observe, envision and communicate architecture.

In this studio-based workshop students will utilize, explore, and gain competency in the fundamental graphic skills that are necessary for the study and practice of architecture and the study of representation as a basic language for an architect. This course introduces a range of communication methodologies and their application to manual means of expression, including sketches, models and technical drawings. It will also lay out a conceptual framework for visual thinking and communication skills that will be instrumental for the further studies of digital representation techniques, beyond the scope of this course.

This course is intended to complement and strengthen design work, studio agenda and communication of ideas. It marks the beginning of development that will continue throughout students’ academic and professional career.

OBJECTIVES AND SKILLS

Per Ministerial Decree EDU/2075/2010, 29 of July; and the official accreditation request for the Bachelor in Architectural Studies, July 2015; see BOCYL, 14 March 2018: p. 10477-10481

2.1-BASIC AND GENERAL OBJECTIVES

- CB1: Students have demonstrated knowledge and an understanding of a given area of study, building upon the foundation of secondary education, supported by advanced texts, and including aspects that engage the latest advances in their area of study.
- CB2: Students know how to apply their knowledge professionally to their work or vocation and possess the competencies that are often demonstrated through elaboration and defense of arguments and the resolution of problems within their area of study.
- CB3: Students can gather and interpret relevant facts (usually within their area of study) in order to make judgments that include reflection on relevant social, scientific, and ethical topics.
- CB4: Students can transmit information, ideas, problems, and solutions to both specialized and non-specialized audiences.
- CB5: Students have developed the necessary learning skills to continue their studies with a high degree of autonomy.
- CG2: Knowledge of the role of the fine arts as a factor that can influence the quality of architectural creation.

2.2-SPECIFIC COMPETENCIES

Module: Preparatory Subject: Graphic Communication

- CE1: Ability to apply graphic knowledge to the representation of spaces and objects.
- CE2: Ability to conceive of and represent the visual attributes of objects and to demonstrate command of proportion and drawing techniques, both manual and digital.
- CE3: Adequate knowledge of systems of spatial representation, as applied to architecture and urbanism.
- CE4: Adequate knowledge of formal theory and analysis, and the laws of visual perception, as applied to architecture and urbanism. CE5: Adequate knowledge of metric and projective geometry, as applied to architecture and urbanism.
- CE5: Adequate knowledge of graphic surveying techniques in all phases, from sketching to scientific restitution, as applied to architecture and urbanism.
- CE10: Adequate knowledge of the fundamentals of topography, hypsometry, cartography and site grading, as applied to architecture and urbanism.

2.3-TRANSVERSE COMPETENCIES OF THE UNIVERSITY

- CT1: Ability to identify the main characteristics of cultural identities that characterize the contemporary world through the knowledge of central ideological currents.
- CT3: Manage unforeseen situations with the capacity to respond to changes within organizations. CT4: Use disciplinary knowledge to analyze and evaluate current situations.
- CT5: Integrate oneself into interdisciplinary and multicultural teams to achieve common goals in a context of diversity.
- CT6: Work actively in an international context.

2.4-SPECIFIC OBJECTIVES AND SKILLS

This subject aims to help students develop conceptual thinking and professional skills necessary to observe, analyze, visualize and represent architectural space. We will therefore place special emphasis on the specific competencies CE1, CE2, CE3, CE4, CE5, CE6, and CE10, as described above. In addition, students will be taught and eventually evaluated on their proficiency in the following:

**Conceptual objectives:**
- Observe reality and space (objects, structures and architecture) with precision.
- Represent what is observed through a sketch, drawing or a model.
- Understand architectural drawings by being able to read spatial characteristics from orthogonal plans and sections.
- Being able to represent architectural space coherently and comprehensively by creating architectural drawings and physical models.
- Initialize and support creative process through drawing.

**Professional skills:**
- Understanding how human perception works and how to use that knowledge to communicate architectural ideas in a comprehensive and expressive way.
- Understanding the conventions of architectural drawing and ability to use them effectively in
design process and project representation.

- Ability to present work in public and engage in constructive critique with others.

METHODOLOGY

3.1. Teaching Method

The teaching method is focused on students' working hands-on as a primary way to acquiring the relevant skills and concepts. Class Sessions will combine short lectures given by the professor with sufficient time given to students to practice these concepts in the form of either short exercises in class or assignments due.

Class lectures will offer both conceptual framework and practical advice. The objective of the lectures is to provide initial help to students, so they start developing the individual skills needed to fulfill the requirement of the course, and also to be able to be productive in design-related assignments outside the scope of this course.

Since hands-on experience is paramount in teaching design, the work that students are required to do will be a primary learning method. This work will be framed as a sequence of short-term (class exercise) and long-term (multiple sessions) assignments. Short term assignments are to be developed in the classroom, to apply the theory learned to daily practice.

The professor will give advice and make corrections, both individually and with the whole group. This process is intended to create a frame of critical dialogue involving the participation of all the students in order to learn one from each other.

3.2. Student Learning Method / Distribution of ECTS Load

The course is focused around practical knowledge that students will achieve by working in a studio environment, where students are expected to work applying the processes and methodologies explained by the professor in the theoretical sessions.

The students will progressively improve their knowledge in a mainly practical way, and it is a must to follow the rhythm of the assignments given by the professor, and show the work in progress in order to be discussed and improved. All the work that a student submits has to be original and made by the student: not copied, traced, or downloaded from the internet, unless students are specifically instructed to trace other's work as a part of the actual exercise. Doing otherwise will lead the student directly to the final extraordinary exam.

Students are expected to work continuously in a sketchbook, practicing concepts of freehand drawing, to improve progressively in both techniques and skills in controlling scale, proportion, perspective and tone.

During the tasks where students are asked to perform analysis, they will be allowed to use digital devices (tablets, laptops, desktop computers) in class, purely for the purpose of class-related research. In any case, the use of digital devices and internet for activities not related to this class is not allowed and will hinder your grade on participation.

Students are also expected to participate actively, working individually during the workshop sessions, showing and explaining their work in public and taking an active role during critiques.

<table>
<thead>
<tr>
<th>Teaching methodology</th>
<th>Weighting</th>
<th>Estimated time a student should dedicate to prepare for and participate in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures</td>
<td>5.33 %</td>
<td>8 hours</td>
</tr>
<tr>
<td>Discussions</td>
<td>6.67 %</td>
<td>10 hours</td>
</tr>
<tr>
<td>Exercises</td>
<td>26.67 %</td>
<td>40 hours</td>
</tr>
<tr>
<td>Group work</td>
<td>1.33 %</td>
<td>2 hours</td>
</tr>
<tr>
<td>Other individual studying</td>
<td>60.0 %</td>
<td>90 hours</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0 %</td>
<td>150 hours</td>
</tr>
</tbody>
</table>

20th July 2022
PROGRAM

SESSION 1 (LIVE IN-PERSON)

Course overview and introductions
Presentation: Basic Observational Drawing: Points to planes (drawing is about relationships) Topics introduced:
- Point-Line-Plane Proportion Sighting
- Contour line drawing
- Line weight in sketching (not line-hierarchy) Positive vs. Negative space
- Negative space (blocking in) drawing
Exercises:
- Hyper-objective drawing 1 (face mapping) Blind contour drawing
- Regular contour drawing Straight line charcoal drawing Negative space drawing
- Homework: Detailed line contour drawing

SESSION 2 (LIVE IN-PERSON)

Course overview and introductions
Presentation: Basic Observational Drawing: Points to planes (drawing is about relationships) Topics introduced:
- Point-Line-Plane Proportion Sighting
- Contour line drawing
- Line weight in sketching (not line-hierarchy) Positive vs. Negative space
- Negative space (blocking in) drawing
Exercises:
- Hyper-objective drawing 1 (face mapping) Blind contour drawing
- Regular contour drawing Straight line charcoal drawing Negative space drawing
- Homework: Detailed line contour drawing

SESSION 3 (LIVE IN-PERSON)

Course overview and introductions
Presentation: Basic Observational Drawing: Points to planes (drawing is about relationships) Topics introduced:
- Point-Line-Plane Proportion Sighting
- Contour line drawing
- Line weight in sketching (not line-hierarchy) Positive vs. Negative space
- Negative space (blocking in) drawing
Exercises:
- Hyper-objective drawing 1 (face mapping) Blind contour drawing
- Regular contour drawing Straight line charcoal drawing Negative space drawing
- Homework: Detailed line contour drawing

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SESSION 4 (LIVE IN-PERSON)

Presentation: Basic Observational Drawing: Light and form (drawing is about the confluence of light and shadow)

Topics introduced:
- Light and shade Cast shadows Value scale
- Value with charcoal (additive and subtractive) Value with line (hatching)
- Value with accumulation (pointalism) Texture

Light and Form exercises:
- Drawing with value basic geometric shapes Drawing with value, still life, with charcoal (additive)
- Drawing with value, architecture, with charcoal on primed paper (additive and subtractive)
  Drawing with value, still life, with pencil or pen (hatching)

SESSION 5 (LIVE IN-PERSON)

Presentation: Basic Observational Drawing: Light and form (drawing is about the confluence of light and shadow)

Topics introduced:
- Light and shade Cast shadows Value scale
- Value with charcoal (additive and subtractive) Value with line (hatching)
- Value with accumulation (pointalism) Texture

Light and Form exercises:
- Drawing with value basic geometric shapes Drawing with value, still life, with charcoal (additive)
- Drawing with value, architecture, with charcoal on primed paper (additive and subtractive)
  Drawing with value, still life, with pencil or pen (hatching)

SESSION 6 (LIVE IN-PERSON)

Presentation: Basic Observational Drawing: Light and form (drawing is about the confluence of light and shadow)

Topics introduced:
- Light and shade Cast shadows Value scale
- Value with charcoal (additive and subtractive) Value with line (hatching)
- Value with accumulation (pointalism) Texture

Light and Form exercises:
- Drawing with value basic geometric shapes Drawing with value, still life, with charcoal (additive)
- Drawing with value, architecture, with charcoal on primed paper (additive and subtractive)
  Drawing with value, still life, with pencil or pen (hatching)

SESSION 7 (LIVE IN-PERSON)

Presentation: Orthographic (multiview) projection

Topics introduced:
- Drafting tools
- Analytic drawing
- Plan
- Elevation
- Section
- Layering information
- Basic layout
- Construction lines

Exercise:
- Tectonic model and orthographic views

**SESSION 8 (LIVE IN-PERSON)**

Presentation: Orthographic (multiview) projection

Topics introduced:
- Drafting tools
- Analytic drawing
- Plan
- Elevation
- Section
- Layering information
- Basic layout
- Construction lines

Exercise:
- Tectonic model and orthographic views

**SESSION 9 (LIVE IN-PERSON)**

Presentation: Orthographic (multiview) projection

Topics introduced:
- Drafting tools
- Analytic drawing
- Plan
- Elevation
- Section
- Layering information
- Basic layout
- Construction lines

Exercise:
- Tectonic model and orthographic views

**SESSION 10 (LIVE IN-PERSON)**

Presentation: Linear Perspective

Topics introduced:
- Perspective through scale
- Perspective through overlapping
- Perspective through location
- Aerial Perspective
- History and elements of linear perspective
- Visual pyramid
SESSION 11 (LIVE IN-PERSON)
Presentation: Linear Perspective
Topics introduced:
- Perspective through scale, Perspective through overlapping, Perspective through location, Aerial Perspective
- History and elements of linear perspective, Visual pyramid
- Picture plane, Ground plane, Horizon line, Station point, Vanishing point, Convergence, Orthogonal
- Interior and Exterior one and two point perspective drawings

SESSION 12 (LIVE IN-PERSON)
Presentation: Linear Perspective
Topics introduced:
- Perspective through scale, Perspective through overlapping, Perspective through location, Aerial Perspective
- History and elements of linear perspective, Visual pyramid
- Picture plane, Ground plane, Horizon line, Station point, Vanishing point, Convergence, Orthogonal
- Interior and Exterior one and two point perspective drawings

SESSION 13 (LIVE IN-PERSON)
Presentation: Observational Perspective / Linear Perspective
Topics introduced:
- Perspective through scale, Perspective through overlapping, Perspective through location, Aerial Perspective
- History and elements of linear perspective, Visual pyramid
- Picture plane, Ground plane, Horizon line, Station point, Vanishing point, Convergence, Orthogonal
- Interior and Exterior one and two point perspective drawings

SESSION 14 (LIVE IN-PERSON)
Presentation: Observational Perspective / Linear Perspective
Topics introduced:
- Perspective through scale, Perspective through overlapping, Perspective through location, Aerial Perspective
- History and elements of linear perspective, Visual pyramid
- Picture plane, Ground plane, Horizon line, Station point, Vanishing point, Convergence, Orthogonal
- One point perspective, Two point perspective, Three point perspective

Exercise:
- Interior and Exterior one and two point perspective drawings

SESSION 15 (LIVE IN-PERSON)

Presentation: Observational Perspective / Linear Perspective

Topics introduced:
- Perspective through scale, Perspective through overlapping, Perspective through location, Aerial Perspective
- History and elements of linear perspective, Visual pyramid
- Picture plane, Ground plane, Horizon line, Station point, Vanishing point, Convergence, Orthogonal
- One point perspective, Two point perspective, Three point perspective

Exercise:
- Interior and Exterior one and two point perspective drawings

SESSION 16 (LIVE IN-PERSON)

Introduction to Mid-Term

Presentation: Measured drawing

Topics introduced:
- Scales
- Differentiation between scale and size
- Mapping measurements
- Sighting measurements
- Data collection and documentation
- Order of operations
- Line hierarchy, Symbolic lines, Construction lines
- Orthographic terminology
- Scale and North arrows Section arrows
- Door swing and thresholds

Exercise:
- Measuring for midterm

SESSION 17 (LIVE IN-PERSON)

Introduction to Mid-Term

Presentation: Measured drawing
Topics introduced:
- Scales
- Differentiation between scale and size
- Mapping measurements
- Sighting measurements
- Data collection and documentation
- Order of operations
- Line hierarchy, Symbolic lines, Construction lines
- Orthographic terminology
- Scale and North arrows Section arrows
- Door swing and thresholds

Excercise:
- Measuring for midterm

SESSION 18 (LIVE IN-PERSON)
Introduction to Mid-Term
Presentation: Measured drawing
Topics introduced:
- Scales
- Differentiation between scale and size
- Mapping measurements
- Sighting measurements
- Data collection and documentation
- Order of operations
- Line hierarchy, Symbolic lines, Construction lines
- Orthographic terminology
- Scale and North arrows Section arrows
- Door swing and thresholds

Excercise:
- Measuring for midterm

SESSION 19 (LIVE IN-PERSON)
Midterm Review

SESSION 20 (LIVE IN-PERSON)
Midterm Review

SESSION 21 (LIVE IN-PERSON)
Presentation: Diagrams and Lettering
Topics introduced:
- Synthetic diagrams
- Location/site diagrams
- Circulation diagrams
- Environmental diagrams
- Activity diagrams
- Concept diagrams
- Organization
- Iteration

Exercise:
- Diagramming and narrative assignment

SESSION 22 (LIVE IN-PERSON)

Presentation: Diagrams and Lettering

Topics introduced:
- Synthetic diagrams
- Location/site diagrams
- Circulation diagrams
- Environmental diagrams
- Activity diagrams
- Concept diagrams
- Organization
- Iteration

Exercise:
- Diagramming and narrative assignment

SESSION 23 (LIVE IN-PERSON)

Presentation: Diagrams and Lettering

Topics introduced:
- Synthetic diagrams
- Location/site diagrams
- Circulation diagrams
- Environmental diagrams
- Activity diagrams
- Concept diagrams
- Organization
- Iteration

Exercise:
- Diagramming and narrative assignment

SESSION 24 (LIVE IN-PERSON)

Presentation: Color systems and media
- Drafting pens
- Water media

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- color as value
- color as sign
- Hue, Value, Intensity scales
- color theory

SESSION 25 (LIVE IN-PERSON)
Presentation: Color systems and media
- Drafting pens
- water media
- color as value
- color as sign
- Hue, Value, Intensity scales
- color theory

SESSION 26 (LIVE IN-PERSON)
Presentation: Color systems and media
- Drafting pens
- water media
- color as value
- color as sign
- Hue, Value, Intensity scales
- color theory

SESSION 27 (LIVE IN-PERSON)
Presentation: Techniques of abstraction
- Plan Obliques
- Formal abstraction
- Color wheel chords and harmony

SESSION 28 (LIVE IN-PERSON)
Presentation: Techniques of abstraction
- Plan Obliques
- Formal abstraction
- Color wheel chords and harmony

SESSION 29 (LIVE IN-PERSON)
Presentation: Techniques of abstraction
- Plan Obliques
- Formal abstraction
- Color wheel chords and harmony

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SESSION 30 (LIVE IN-PERSON)
Presentation: Paraline Drawing: Axonometric
Topics Introduced:
- Isometric
- Axonometric
- Exploded views
- Exploded lines vs. construction lines
Exercise:
- Exploded axonometric drawing

SESSION 31 (LIVE IN-PERSON)
Presentation: Paraline Drawing: Axonometric
Topics Introduced:
- Isometric
- Axonometric
- Exploded views
- Exploded lines vs. construction lines
Exercise:
- Exploded axonometric drawing

SESSION 32 (LIVE IN-PERSON)
Presentation: Paraline Drawing: Axonometric
Topics Introduced:
- Isometric
- Axonometric
- Exploded views
- Exploded lines vs. construction lines
Exercise:
- Exploded axonometric drawing

SESSION 33 (LIVE IN-PERSON)
Presentation: Paraline Drawing: Oblique drawing
Topics Introduced:
- Difference between axonometric and oblique drawing
- Plan oblique with possible angles
- Elevation oblique
- Shadows in oblique
- Cutaway views
- Partition views
- Expanded views

Exercise:
- Measuring for Final Project
- Exploded and partitioned oblique drawings

SESSION 34 (LIVE IN-PERSON)

Presentation: Paraline Drawing: Oblique drawing

Topics Introduced:
- Difference between axonometric and oblique drawing
- Plan oblique with possible angles
- Elevation oblique
- Shadows in oblique
- Cutaway views
- Partition views
- Expanded views

Exercise:
- Measuring for Final Project
- Exploded and partitioned oblique drawings

SESSION 35 (LIVE IN-PERSON)

Presentation: Paraline Drawing: Oblique drawing

Topics Introduced:
- Difference between axonometric and oblique drawing
- Plan oblique with possible angles
- Elevation oblique
- Shadows in oblique
- Cutaway views
- Partition views
- Expanded views

Exercise:
- Measuring for Final Project
- Exploded and partitioned oblique drawings

SESSION 36 (LIVE IN-PERSON)

In class development of final project

SESSION 37 (LIVE IN-PERSON)
BIBLIOGRAPHY
Compulsory


EVALUATION CRITERIA
Evaluation continuous, which implies that all the work produced by the students along the semester will contribute to the final grade. Technical competence and conceptual value of the submitted work will be the evaluated with equal importance, as will be the case with maturity of student's critical view inside the context of the collective work of the class. Additionally, development and growth of these capacities throughout the semester will form an important element during evaluation.

First Evaluation Session
In order to pass the course during first evaluation session, the overall evaluation grade of the student should be at least 5.0 points on a scale between 0.0 and 10.0.
As listed in the table above, the primary evaluation material for the first evaluation session will be design assignments, both the short term and long term ones.
Short-term assignments are to be developed during the class sessions in the classroom, and must be handed in at the end of the sessions, when asked. Therefore, the attendance to all the sessions is a must in order for the assignments to be submitted and accepted. The non-attendance will result in related assignments being given a score of 0.0.
Long-term assignments are to be developed by the student over the class of multiple sessions, in class and finished at home. These assignments will be presented in public and subject to critique. The timely submission all assignments is mandatory. Late submission will result in the dismissal of the given assignments as evaluation materials, resulting in an assignment score of 0.0.
In order to give the students an insight on their level of fulfillment of the course requirements, a provisional score may be assigned individually by the instructor upon submission of each course assignment. This score will be used only for orientation purposes, and will not necessarily be related with the final semester score.

**Attendance:**

According to the current attendance policy of IE University, class attendance is mandatory: students must attend at least 70% of all class sessions. Students who do not meet this minimum percentage will automatically fail both first and second evaluation session, and pass directly to the third enrollment (re-taking the course).

When re-taking the course, attendance must be of at least 50%, but the student must accomplish 100% of the exercises assigned. If this level is not reached, the student will have to do the 4th and last exam session to pass the subject.

Punctuality is also mandatory. According to the general Code of Conduct In Class (see below), students arriving late to the class will be marked as absent.

**Second and Fourth Evaluation Sessions**

Those students whose studio work has not been positively evaluated will be required to pass an extraordinary evaluation session, except for the students that do not meet the minimum percentage attendance - according to IE University attendance policy, such students do not qualify for the subsequent evaluation session.

The content, format and evaluation criteria of these additional examinations will be adjusted according to the specific studio performance and coursework situation of each individual.

Because of this, students falling under these circumstances will be responsible for contacting the instructor at least three weeks prior to the expected examination submission date in order to be notified about the specific requirements for their satisfactory fulfillment of the course.

No claims will be accepted if the student fails to contact the instructor within the time frame set above, as it will then be understood that he/she declines the opportunity to pass the course within the current evaluation session.

After the second and fourth evaluation sessions, and according to the current IE University policy, the student will be graded according to both his/her performance in the exam and his/her performance during the course.

The second and fourth evaluation sessions will only be considered satisfactorily complete with a grade of 5.0 or more. According to the general regulations of IE University, students cannot earn a grade higher than 8.0 in the second and fourth evaluation sessions.

**Third Evaluation Session**

Those students that do not receive a positive evaluation in the second evaluation session and those students who fail to comply with minimum attendance requirement, will be required to retake the course during the following academic year, where they will produce new design assignments which will constitute their primary evaluation material for the third evaluation session.

The criteria for evaluation for the third evaluation session, are the same as the ones for the first evaluation session.

Students falling under this category will be the subject to a minimum class attendance policy of 70%, which is set by the general regulations of IE University, under same conditions as in the first enrollment.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>80 %</td>
<td>Correct graphical and conceptual execution of the submitted assignments.</td>
</tr>
<tr>
<td>Evolution</td>
<td>10 %</td>
<td>Improvement of the quality of submitted assignments</td>
</tr>
</tbody>
</table>
PROFESSOR BIO

Professor: MAXON HIGBEE
E-mail: mhigbee@faculty.ie.edu

Maxon Higbee is an artist and professor in the Bachelor in Architecture at IE University. He is co-director of The Windor, an artist run space in Madrid.

In 2010 he was awarded a World Less Traveled Grant for a proposed project in Madrid, where he stayed, and continues to live and work. He has been in many solo and group exhibitions internationally and has given lectures at several institutions, including the American University Beirut, Lebanon; The Thyssen Bornemisza Museum, Madrid; and the IEU Department of Architecture and Design in Izmir, Turkey. He was a visiting artist in the Estudio Joven program at The Thyssen Bornemisza Museum, in Madrid, and was a selected artist in issue #101 of New American Paintings.

He received a Bachelor of Arts degree in English Literature and a BFA in Painting and Drawing, at California State University Chico, in 2007. In 2008 he was offered a full-time merit fellowship in the Painting and Drawing program at the Art Institute of Chicago. Upon completing his Masters of Fine Arts degree he received a John Quincy Adams Fellowship Grant for artistic merit. He is currently pursuing his doctorate in Visual Studies, in the Department of Art at the Complutense University in Madrid.

Professor’s website: www.maxonhigbee.com

OTHER INFORMATION
Office Hours 9-14:00 Tuesday, Wednesday and Friday.
E-mail: mhigbee@faculty.ie.edu

Class Participation  | 10 %  | Active participation during class and programmed activities

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